D-2

ARIZONA SCHOOL FACILITIES BOARD (F-15-0905)

Title 7, Chapter 6, Article 1, Definitions; Article 2, Minimum School Facility Guidelines; Article 3, Square Footage Calculations; Article 5, New School and Land Funding; Article 6, Constituency Funds; Article 7, Minimum School Facility Guidelines for the Arizona State Schools for the Deaf and Blind

GOVERNOR'S REGULATORY REVIEW COUNCIL
ANALYSIS OF FIVE-YEAR REVIEW REPORT

MEETING DATE: February 2, 2016 **AGENDA ITEM: D-2**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Chris Kleminich, Staff Attorney

DATE: January 15, 2016

SUBJECT: **ARIZONA SCHOOL FACILITIES BOARD (F-15-0905)**
Title 7, Chapter 6, Article 1, Definitions; Article 2, Minimum School Facility Guidelines; Article 3, Square Footage Calculations; Article 5, New School and Land Funding; Article 6, Constituency Funds; Article 7, Minimum School Facility Guidelines for the Arizona State Schools for the Deaf and Blind

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COMMENTS ON THE FIVE-YEAR-REVIEW REPORT

Purpose of the Agency and Number of Rules in the Report

The purpose of the School Facilities Board (Board) is "[t]o evaluate the school capital needs of school districts and to distribute monies to school districts in order to cure existing deficiencies, for building renewal and for the construction of new facilities." Laws 2008, Ch. 287, § 46.

This five-year review report covers 84 rules in six articles in A.A.C. Title 7, Chapter 6. The Board's rules were originally made under an exemption to the Administrative Procedure Act (APA). The Board's exemption was extended three times between 1998 and 2001 to provide the Board with sufficient time to amend the minimum school facility adequacy guidelines. See Laws 1998, 5th S.S., Ch. 1, § 55, as amended by Laws 1999, Ch. 299, § 39; Laws 2000, Ch. 163, § 2; and Laws 2001, Ch. 11, § 9, effective March 15, 2001 and retroactively effective to January 1, 2001. The Board completed a second exempt rulemaking, effective June 7, 2001, before its exemption from the APA ended on December 31, 2001. In 2006, the Board amended R7-6-302, and faced review from the Council for the first time.

Article Contents, Including the Subject Matter of Each Rule in the Report

Article 1 contains one rule that addresses definitions.

Article 2 contains 34 rules, related to minimum school facility guidelines, that address applications; school sites; classroom light; classroom temperature; classroom acoustics; classroom air quality; education classroom facilities for disabled students; libraries and media

centers/research areas; equipment for libraries and media centers/research areas; cafeterias; food service; equipment lists for food service; auditoriums, multipurpose rooms, or other multiuse space; technology; transportation; science facilities; equipment lists for science facilities; art facilities; vocational education facilities; physical education and comprehensive health program facilities; equipment lists for physical education; alternative delivery methods; parent work spaces; two-way internal communication systems; fire alarms; administrative spaces; laws and building codes; energy saving measures; building systems; building structural soundness; exterior envelopes, interior surfaces, and interior finishes; minimum gross square footage; assessment of minimum gross square footage; and guidelines exceptions.

Article 3 contains two rules that address square footage calculations and modification of square footage for geographic factors.

Article 5 contains six rules, related to new school and land funding, that address capital plans; funding for new schools or additional square footage; funding for land; donations of real property; constructing bond funded schools on land funded by the Board; and providing technical assistance in the form of project management.

Article 6 contains one rule that addresses the allocation and use of contingency monies.

Article 7 contains 40 rules, related to minimum school facility guidelines for the Arizona State Schools for the Deaf and Blind (ASDB), that address applications; school sites; academic classroom space; classroom fixtures and equipment; classroom lighting; classroom temperature; classroom acoustics; classroom air quality; education classroom facilities for disabled students; libraries and media centers/research areas; equipment for libraries and media centers/research areas; cafeterias; food service; equipment lists for food service; auditoriums, multipurpose rooms, or other multiuse space; technology; transportation; science facilities; equipment lists for science facilities; art facilities; vocational education facilities; physical education and comprehensive health program facilities; equipment lists for physical education; alternative delivery methods; parent work spaces; two-way internal communication systems; fire alarms; administrative spaces; laws and building codes; energy saving measures; building systems; building structural soundness; exterior envelopes, interior surfaces, and interior finishes; minimum gross square footage; assessment of minimum gross square footage; student boarding spaces; ASDB program requirement facilities; student health centers; parent outreach programs; and guidelines exceptions.

Year that Each Rule was Last Amended or Newly Made

Section 302 was last amended on December 4, 2006. All of the other rules were last amended or newly made on June 7, 2001.

Proposed Action

The Board indicates that it intends to submit the following amendments to the Council by June 30, 2016:

- Section 221: Subsection (A)(4) should change a reference to "VCR" equipment to "video display" to reflect a newer generation of video play-back technologies. A typographical correction should be made to subsection (A)(6). Subsection (B) should be struck, because of its reference to printed encyclopedia and atlas references that have largely been replaced by online references that are up-to-date.
- Section 235: Subsection (C) should be struck, as it is an outdated provision.
- Section 255: Subsection (A) should be amended by striking the clause "If parents are invited to assist with school activities," making the balance of the rule a simple declarative sentence.
- Section 258: Subsections (A) and (C) require corrections of typographical errors.
- Section 260: Subsection (B) should be rewritten to say: "New school facility construction shall, at a minimum, meet the requirements established by the building code adopted and enforced by the municipal jurisdiction in which the school site resides. In the event the school site is outside of the corporate limits of a municipality, the requirements of the building code adopted by the largest city in the county within which the school site resides, shall apply. See A.R.S. § 34-461."
- Section 276: Grammatical corrections are needed.
- Section 301: Subsection (B) of the rules is unnecessary, as A.R.S. § 15-2011 provides sufficient detail. The balance of the rule can be rewritten to improve clarity, conciseness, and understandability.
- Sections 502 and 504: The rules should be rewritten to reflect current agency practices.
- Section 505: Subsection (B) can be clarified.
- Section 506: Subsection (C) can be rewritten to clarify the process to be used to apply for additional funding, and the constraints of current appropriations.
- Section 601: The rule will be largely rewritten to reflect current agency practices.
- Section 721: Subsection (A)(4) should change a reference to "VCR" equipment to "video display" to reflect a newer generation of video play-back technologies. Subsection (B) should be struck, because of its reference to printed encyclopedia and atlas references that have largely been replaced by online references that are up-to-date.
- Section 755: Subsection (A) should be amended by striking the clause "If parents are invited to assist with school activities," making the balance of the rule a simple declarative sentence.
- Section 758: Subsections (A) and (C) require corrections of typographical errors.
- Section 760: Subsection (B) should be rewritten to say: "New school facility construction shall, at a minimum, meet the requirements established by the building code adopted and enforced by the municipal jurisdiction in which the school site resides. In the event the school site is outside of the corporate limits of a municipality, the requirements of the building code adopted by the largest city in the county within which the school site resides, shall apply. See A.R.S. § 34-461."

Summary of Reasons for the Proposed Action

The great majority of the Board's rules have not been amended since 2001, and some of the rules can be updated to reflect current practices of the Board and of the regulated public.

Exemption or Request and Approval for Exception from the Moratorium

Not applicable.

Substantive or Procedural Concerns

None, though staff encourages the Board to continue to take a hard look at these rules, even after the five-year-review process is completed, in order to determine whether more rules can be updated or improved.

Analysis of the agency's report pursuant to criteria in A.R.S. § 41-1056 and R1-6-301:

1. **Has the agency certified that it is in compliance with A.R.S. § 41-1091?**

Yes. The Board has certified its compliance with A.R.S. § 41-1091.

2. **Has the agency analyzed the rules' effectiveness in achieving their objectives?**

Yes. The Board indicates that the rules effectively achieve their objectives.

3. **Has the agency received any written criticisms of the rules during the last five years, including any written analysis questioning whether the rules are based on valid scientific or reliable principles or methods?**

No. The Board notes that it has not received any written criticisms of the rules during the last five years.

The Board does indicate that it received a set of comments in May of 2005, addressing 28 rules. The comments related to definitions, updates in terminology or date-specific guidelines, and more substantive interpretation changes. The Board indicates that it has considered these comments and intends to implement some of the suggestions in its proposed course of action.

In addition, the Board states that general oral criticisms have been made to the Board, related to limited appropriation levels made to various funds administered by the Board. The criticisms argue that the appropriation levels prevent the standards and measures in the rules from being fully carried out.

4. **Has the agency analyzed whether the rules are authorized by statute?**

Yes. As general statutory authority, the Board notes that it is required to "[d]evelop application forms, reporting forms and procedures to carry out the requirements of this article

[Title 15, Chapter 16, Article 1, School Facilities Board]" and "[m]ake rules of practice setting forth the nature and requirements of all formal procedures available to the public." See A.R.S. §§ 15-2002(A)(7) and 41-1003, respectively. In addition to guidelines for school districts, the Board must "[e]stablish minimum school facility adequacy guidelines applicable to the Arizona state schools for the deaf and blind." A.R.S. § 15-2002(A)(11). As specific statutory authority, the Board cites to A.R.S. § 15-2011(F), under which the Board "[s]hall adopt rules establishing minimum school facility adequacy guidelines."

The extent of the Board's rulemaking authority has been examined by the Council in the past. In 2006, when the Board's last rulemaking came before the Council, staff noted that the Board arguably lacked specific statutory authority to amend R7-6-302 to allow for the consideration of geographic factors in funding determinations. Without such authority, the Board would be unable to codify, in rule, standards for exercising its discretion. As a general proposition, it is desirable for agencies to place such standards in rule, as it is preferable for agencies to promulgate rules and regulations of general applicability, rather than generating policies in a "piecemeal fashion" by using individual orders. See *Shelby School v. Arizona State Board of Education*, 962 P.2d 230, 238 (App. 1998). *Shelby* also indicates that "[w]hen authorized to do so by the legislature, administrative bodies may make supplementary rules for the complete operation and enforcement of legislation." *Id*. at 239. Supplementary rulemaking may occur if an agency is acting within standards set forth in an act of the legislature to fill in details. See *Haggard v. Industrial Commission*, 223 P.2d 915, 921-922 (Ariz. 1950). The rules in Articles 1, 2, 3, 5, and 6 arguably fall within the express rulemaking authority of A.R.S. § 15-2011(F), because they are related to school districts providing adequate school sites. The Council has concluded in the past that the amendment to R7-6-302 was a gap-filling measure, promulgated by the Board for the complete operation of its statutes. A.R.S. § 15-2002(A)(11) provides the Board's authority for the rules in Article 7.

5. Has the agency analyzed the rules' consistency with other rules and statutes?

Yes. The Board indicates that the rules are generally consistent with other rules and statutes.

6. Has the agency analyzed the current enforcement status of the rules?

Yes. The Board indicates that the rules are generally enforced as written, with the following exceptions:

- Sections 502 and 504: The rules should be rewritten to reflect current agency practices.
- Section 506: Subsection (C) can be rewritten to clarify the process to be used to apply for additional funding, and the constraints of current appropriations.
- Section 601: The rule will be largely rewritten to reflect current agency practices.

7. <u>Has the agency analyzed whether the rules are clear, concise, and understandable?</u>

Yes. The Board indicates that the rules are generally clear, concise, and understandable, with the following exceptions:

- Section 221: Subsection (A)(4) should change a reference to "VCR" equipment to "video display" to reflect a newer generation of video play-back technologies. A typographical correction should be made to subsection (A)(6). Subsection (B) should be struck, because of its reference to printed encyclopedia and atlas references that have largely been replaced by online references that are up-to-date.
- Section 235: Subsection (C) should be struck, as it is an outdated provision.
- Section 255: Subsection (A) should be amended by striking the clause "If parents are invited to assist with school activities," making the balance of the rule a simple declarative sentence.
- Section 258: Subsections (A) and (C) require corrections of typographical errors.
- Section 260: Subsection (B) should be rewritten to say: "New school facility construction shall, at a minimum, meet the requirements established by the building code adopted and enforced by the municipal jurisdiction in which the school site resides. In the event the school site is outside of the corporate limits of a municipality, the requirements of the building code adopted by the largest city in the county within which the school site resides, shall apply. See A.R.S. § 34-461."
- Section 276: Grammatical corrections are needed.
- Section 301: Subsection (B) of the rules is unnecessary, as A.R.S. § 15-2011 provides sufficient detail. The balance of the rule can be rewritten to improve clarity, conciseness, and understandability.
- Section 505: Subsection (B) can be clarified.
- Section 721: Subsection (A)(4) should change a reference to "VCR" equipment to "video display" to reflect a newer generation of video play-back technologies. Subsection (B) should be struck, because of its reference to printed encyclopedia and atlas references that have largely been replaced by online references that are up-to-date.
- Section 755: Subsection (A) should be amended by striking the clause "If parents are invited to assist with school activities," making the balance of the rule a simple declarative sentence.
- Section 758: Subsections (A) and (C) require corrections of typographical errors.
- Section 760: Subsection (B) should be rewritten to say: "New school facility construction shall, at a minimum, meet the requirements established by the building code adopted and enforced by the municipal jurisdiction in which the school site resides. In the event the school site is outside of the corporate limits of a municipality, the requirements of the building code adopted by the largest city in the county within which the school site resides, shall apply. See A.R.S. § 34-461."

8. <u>Stringency of the Rules:</u>

a. <u>Are the rules more stringent than corresponding federal law?</u>

The Board indicates that no federal laws directly correspond to the rules.

b. <u>If so, is there statutory authority to exceed the requirements of federal law?</u>

Not applicable.

9. <u>For rules adopted after July 29, 2010:</u>

a. <u>Do the rules require issuance of a regulatory permit, license or agency authorization?</u>

Not applicable, as the rules were last amended or newly made in 2001 and 2006.

b. <u>If so, are the general permit requirements of A.R.S. § 41-1037 met or does an exception apply?</u>

Not applicable.

10. <u>Has the agency indicated whether it completed the course of action identified in the previous five-year-review report?</u>

Yes. In its 2005 five-year-review report, the Board indicated that it would amend seven rules by September 2006: R7-6-258, R7-6-261, R7-6-301, R7-6-502, R7-6-504, R7-6-601, and R7-6-758. The Board reached the proposed rulemaking stage twice, but because of personnel changes and the rulemaking moratorium, the Board did not complete the proposed actions on these rules.

In its 2010 five-year-review report, the Board indicated that it would submit amendments to the following rules to the Council by January 2012: R7-6-221, R7-6-235, R7-6-255, R7-6-258, R7-6-260, R7-6-270, R7-6-276, R7-6-301, R7-6-502, R7-6-504, R7-6-505, R7-6-506, R7-6-601, R7-6-721, R7-6-735, R7-6-755, R7-6-758, R7-6-760, R7-6-770, and R7-6-776. Again, the Board did not complete the proposed actions on these rules.

11. <u>Has the agency included a proposed course of action?</u>

Yes. The Board intends to submit the aforementioned amendments to the Council by June 30, 2016.

<u>Conclusion</u>

The report meets the requirements of A.R.S. § 41-1056 and R1-6-301. This analyst recommends that the report be approved.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: D-2**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA SCHOOL FACILITIES BOARD (F-15-0905)**
Title 7, Chapter 6, Article 1, Definitions; Article 2, Minimum School Facility Guidelines; Article 3, Square Footage Calculations; Article 5, New School and Land Funding; Article 6, Constituency Funds; Article 7, Minimum School Facility Guidelines for the Arizona State Schools for the Deaf and Blind

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I reviewed the five-year-review report's economic, small business, and consumer impact comparison for compliance with A.R.S. § 41-1056 and make the following comments.

1. <u>Economic Impact Comparison</u>

An economic, small business, and consumer impact statement (EIS) was unavailable for most of the rules contained in the five-year-review report.

The Board believes that the economic impact of the rules is minimal to none, as explained in the report. In general, the Board indicates that its rules provide guidance to the Board on its administration of the new school facilities fund and the minimum adequacy standards for schools. While the optimum distribution of these funds is prescribed in statute, the available funding levels are subject to annual appropriations. The rules are intended to ensure consistent and impartial administration of those funds as they fluctuate based on the annual appropriation made to each of the funds.

The Board believes that these funds benefit the state's economy, in that they provide revenue streams necessary to build new schools as they are needed, augment maintenance reserves of individual school districts to properly maintain existing school buildings, and ensure the minimum standards of facility quality to house Arizona's public educational programs. Most of the work associated with these funds is done by private local construction and specialty sub-contract companies. Any economic impact on these local businesses is affected by the funding levels of the annual appropriations provided to accomplish that work.

2. Has the agency determined that the rules impose the least burden and costs to persons regulated by the rules?

The Board indicates that the benefits of the rules outweigh the probable costs of the rules, and impose the least burden and costs on the persons regulated.

3. Was an analysis submitted to the agency under A.R.S. § 41-1056(A)(7)?

No analysis was submitted to the agency by another person that compares the rules' impact on this state's business competitiveness to the impact on businesses in other states under A.R.S. § 41-1056(A)(7).

4. Conclusion

After review, staff concludes that the report complies with A.R.S. § 41-1056 and recommends approval.

STATE OF ARIZONA
SCHOOL FACILITIES BOARD

Governor of Arizona
Douglas A. Ducey

Interim Executive Director
Philip G. Williams

January 13, 2016

Ms. Nicole A. Ong, Chairperson
Governor's Regulatory Review Council
100 North 15th Avenue, Suite 402
Phoenix, AZ 85007

Re: A.R.S. §41-1091 (D); Certification of Compliance

Dear Ms. Ong:

Please accept this letter as certification that the Arizona School Facilities Board is in compliance with the requirements of A.R.S.§41-1091 regarding substantive policy statements.

1. In addition to posting SFB rules and substantive policy statements on our agency website (https://sfb.az.gov), our agency publishes a directory summarizing the subject matter of all currently applicable rules and substantive policy statements;
2. The SFB does keep a copy of the directory and all substantive policy statements in our office, at one location, and makes it available for public review;
3. All SFB Substantive Policy Statements do have the notice prescribed in A.R.S. §41-1091 (B) on the first page of each substantive policy statement, and;
4. The SFB does make the directory, rules, substantive policy statements, and copies of any materials incorporated by reference in them, open to public inspection at the office of the agency executive director during normal office hours.

In addition, the School Facilities Board has no rule that is not reviewed with the intention that the rule will expire under A.R.S. §41-1056(J), or rule that is not reviewed because the Council rescheduled the review of an article under A.R.S. §41-1056(H).

If you have any question related to this certification, please contact Kerry Campbell, Public Information Officer at 602.542.6504 or kcampbell@azsfb.gov .

Sincerely,

Kerry Campbell
On behalf of Phil Williams, Interim Executive Director

1700 WEST WASHINGTON, SUITE 104, PHOENIX, ARIZONA 85007
Phone: (602) 542-6501 • Fax: (602) 542-6529 • https://sfb.az.gov

School Facilities Board

5 Year Rules Report
to the
Governor's Regulatory Review Council
concerning

A.A.C. Title 7, Chapter 6

December 2015

Arizona School Facilities Board
1700 West Washington Street, Suite 104
Phoenix, Arizona 85007

Philip G. Williams
Interim Executive Director

Information that is Identical within Groups of Rules

This report summarizes the result of a review of the rules at the Arizona Administrative Code, Title 7, Chapter 6, under which the Arizona School Facilities Board (SFB) operates. Rules relative to the facilities requirements for schools operated by the Arizona Schools for the Deaf and Blind are also part of the Arizona Administrative Code, Chapter 6, Article 7. That Article is administered by the SFB.

In accord with A.A.C. R1-6-301(A), the following information is discussed only once because it is identical for each rule:

1. **General Statute Authorizing the Rules:**
   All of the existing rules promulgated by the SFB are generally authorized by Arizona Revised Statutes (A.R.S.) § 41-1001.01; § 41-1003; § 15-2002.(A.)(7.); § 15-2002.(A.)(11.); and § 15-2022.

   With respect to those rules specifically authorizing minimum school facility adequacy guidelines, A.R.S. § 15-2011(F) provides that authority to the SFB for establishing and administering those guidelines for all Arizona public school district school buildings and also for the Arizona State Schools for the Deaf and Blind (ASDB).

2. **Objective of the Rule:**
   The objective of each rule is addressed in the "Analysis of Published Rules" portion of this report.

3. **Effectiveness of the Rules in Achieving their Objectives:**
   The rules in Articles 1 through 7 effectively achieve their objectives. These rules pertain to the Arizona School Facilities Board and the Arizona State Schools for the Deaf and Blind.

4. **Consistency of the Rules with State and Federal Statutes and Rules:**
   The rules in Articles 1 through 7 are consistent with the Administrative Procedures Act. Federal statutes and rules do not directly affect these rules.

5. **Agency Enforcement Policy:**
   The Board enforces the following rules as they are written:
   All of Article 1. **Definitions**
   All of Article 2. **Minimum School Facility Guidelines**
   All of Article 3. **Square Footage Calculations**

Some subsections of Article 5. **New School and Land Funding,** and of Article 6. **Contingency Funds,** are not in complete alignment with accepted agency practice. Those incongruities have been identified by the rulemaking packages that were attempted over the past 10 years but have not been made. The need for the amendments contained in those prior rulemaking packages still exists.

Article 7. **Minimum School Facility Guidelines for the Arizona State Schools for the Deaf and Blind** (ASDB) was enforced by the SFB as written, in partnership with the ASDB, during the design and construction of the new Phoenix Day School for the Deaf (grades 7-12), completed in August of 2008. The operating agency's ability to meet its statutory and budgetary requirements was not impaired by the enforcement of the sections within this Article 7.

6. **Clarity, Conciseness, and Understandability of the Rules:**
All of the rules within A.A.C. Title 7, Chapter 6 are generally clear, concise, and understandable.

7. **Summary of Written Criticisms:**
The Board has not received written criticisms of any specific rule within A.A.C. Title 7, Chapter 6. However, one comment received dealt only with rule R7-6-221, Equipment for Libraries and Media Centers/Research Area. The comment came from a unified school district and was really a request for an exemption to this rule which sets the minimum number of books per student in the school library/media center (10 books per student). The SFB considered this concern, but felt that the minimum set was reasonable for a school library, even in the digital age. A second set of comments was received May 23, 2005, addressing the above rule, as well as 27 other rules or sections of rules not identified for change by the Board, or not proposed for change in the same manner. The comments ranged from lack of definition for a term, to updating terminology or date specific guidelines, to more substantive interpretation changes. This set of concerns has been considered, and in some cases those concerns are reflected in the proposed rule package. General oral criticisms that have been made to the SFB have related not to the rules themselves, but to the limited appropriation levels made to the various funds administered by the SFB that prevent the standards and measures in the rules from being fully carried out.

8. **Economic, Small Business and Consumer Impact:**
Prior to December 31, 2001, the Board's rulemaking authority was exempt from the provisions of Title 41, Chapter 6 (Laws 2001, Chapter 11). In general, the rules within A.A.C. Title 7, Chapter 6 are not the type of rules that impose fees or regulations in the conduct of business for small companies or on the consumption of goods or services on the part of

individual citizens. In general, these rules provide guidance to the Board on its administration of the new school facilities fund and the minimum adequacy standards for schools. While the optimum distribution of these funds is prescribed in statute, the available funding levels are subject to annual appropriations. These rules ensure consistent and impartial administration of those funds as they fluctuate based on the annual appropriation made to each of the funds.

All of these funds benefit the state economy because they provide the revenue streams necessary to build new schools as they are needed and augment maintenance reserves of the individual school districts to properly maintain existing school buildings at a level that will extend their useful lives and ensure the minimum standard of facility quality to house Arizona's public educational programs. Most of the work associated with these funds is done by private local construction and specialty sub-contract companies. The economic impact on these local businesses is not the result of these rules. Rather, the economic impact on these local businesses is affected by the funding levels of the annual appropriations provided to accomplish that work.

9. **Analysis of the Rule's Impact on Business Competitiveness:**
The SFB has not received any analysis by another person regarding the rule's impact on the state's business competitiveness as compared to the competitiveness of businesses in other states.

10. **Completion of Course of Action:**
None of the proposed changes in the SFB's 2010 Rules Report were implemented. This item is not applicable.

11. **Analysis of Benefit of the Rules Compared to Cost:**
In general, the rules within A.A.C. Title 7, Chapter 6 provide guidance to the Board on its administration of the new school facilities fund and the minimum adequacy standards for schools. They ensure consistent and impartial administration of those funds as they fluctuate based on the annual appropriation made to each of the funds and establish a minimum requirement for school facilities. The Board believes that these benefits of the rules outweigh the probable costs of the rules. These rules are intended to impose the least burden and costs on the public.

12. **Analysis of corresponding Federal Law:**
An analysis of federal statutes and rules for correspondence with the rules within A.A.C. Title 7, Chapter 6 has not been performed. This item is not applicable.

13. **Adoption of Rules After July 29, 2010:**
    The SFB has not adopted any rules after July 29, 2010. This item is not applicable.

14. **Proposed Course of Action:**
    The SFB anticipates correcting the identified shortcomings in its rules as described below in the "Analysis of Published Rules" portion of this report by June 30, 2016.

Analysis of Published Rules

NOTE: the following inaccuracies have been noticed in both the online version of the Arizona Administrative Code and the printed version in West's Arizona Education Code 2014-2015 Edition.

At the Table of Contents for Title 7. Education, Chapter 6. School Facilities Board, the following Section headings are incorrect because they do not correspond to the respective headings included in the body of the published rule. The correct headings follow the incorrect headings shown as stricken through:

R7-6-210.	*~~Reserved~~*	*Academic Classroom Space*
R7-6-211.	*~~Classroom Light~~*	*Classroom Fixtures and Equipment*
R7-6-212.	*~~Reserved~~*	*Classroom Lighting*

In the body of the published Article 3. ***Square Footage Calculations*** *within section R7-6-301. Square Footage Calculations in subsection A., on the second line of that subsection, a misprint occurs in both versions where they reference a citation to 'A.R.S. § 5-2002(H.)"*
There is no A.R.S. § 5-2002.(H.) in Title 5. Amusements and Sports.
The correct citation should be "A.R.S. § 15-2002.(G.)"

Title 7. **Education.** Chapter 6. **School Facilities Board** of the Arizona Administrative Code begins with the following Editor's Notes:

Editor's Note: This Chapter contains rules which were adopted, amended, repealed, or renumbered under an exemption from the Arizona Administrative Procedure Act (A.R.S. Title 41, Chapter 6), pursuant to Laws 1998, 5th Special Session, Chapter 1, section 55, as amended by Laws 1999, Chapter 299, section 39. Because this Chapter contains rules which are exempt from the regular rulemaking process, it is printed on blue paper.

Title 7, Chapter 6, adopted by exempt rulemaking at 6 A.A.R. 597, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1).

Article 1. Definitions

R7-6-101. Definitions

Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S.§ 15-2011.(F.) and A.R.S. § 15-2022.(A.)

Objective: This rule informs local school districts and the public of the meaning of key terms used by the Board regarding facilities.

R7-6-102. Repealed effective June 7, 2001 [Supp. 01-4].

Article 2. Minimum School Facility Guidelines

R7-6-201. Applications

Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S.§ 15-2011.(F.) and A.R.S. § 15-2022.(A.)
Objective: This rule informs local school districts and the public of the situations in which the minimum school facility guidelines are a requirement.

R7-6-202. through R7-6-204. Reserved

R7-6-205. School Site
Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S.§ 15-2011.(F.) and A.R.S. § 15-2022.(A.)
Objective: This rule informs local school districts and the public of the minimum guidelines relative to school sites.

R7-6-206. through R7-6-209. Reserved

R7-6-210. Academic Classroom Space
Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S.§ 15-2011.(F.) and A.R.S. § 15-2022.(A.)
Objective: This rule informs local school districts and the public of the various square footage criteria requirements by grade configuration.

R7-6-211. Classroom Fixtures and Equipment
Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S.§ 15-2011.(F.) and A.R.S. § 15-2022.(A.)
Objective: This rule informs local school districts and the public of the various general requirements related to seating, desk surfaces, and storage in general classrooms and specialty classrooms.

R7-6-212. Classroom Lighting
Authorization: A.R.S. § 15-2011.(F.)
Objective: This rule informs local school districts and the public of the general requirements relative to lighting levels and how the measurement of those levels is to be made.

R7-6-213. Classroom Temperature
Authorization: A.R.S. § 15-2011.(F.)
Objective: This rule informs the local school districts and public of the general requirements relative to acceptable temperature ranges and how those measurements are to be made.

R7-6-214. Classroom Acoustics

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general requirements relative to background sound levels and how the measurement of those levels is to be made.

R7-6-215. Classroom Air Quality

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general requirements relative to maximum allowable carbon dioxide levels and how the measurement of those levels is to be made.

R7-6-216. Education Classroom Facilities for Disabled Students

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general requirements related to space and access to space for disabled students.

R7-6-217. through R7-6-219. Reserved

R7-6-220. Library and Media Centers/Research Area

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the specific requirements related to the minimum adequacy guidelines for equipment, books, and furniture.

R7-6-221. Equipment for Libraries and Media Centers/Research Area

Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S. § 15-2011.(F.) and A.R.S. § 15-2022.(A.)

Objective: This rule informs local school districts and the public of the minimum adequacy standards for equipment, books, and other resources required for school libraries and Media Centers.

Proposed Course of Action: R7-6-221.(A.)(4.) requires an amendment striking the reference to "VCR" equipment to "VIDEO DISPLAY" to reflect the newer generation of video play-back technologies. R7-6-221.(A.)(6.) requires a typographical correction, so that it reads: "Ten books per student *{singular}*." R7-6-221.(B.) should be stricken because of its reference to encyclopedia and atlas publication dates of 2000 or later. Printed encyclopedia and atlas references have been largely replaced by access to online references that are up-to-date. However, the SFB has determined that the minimum number of library books currently set by this rule was reasonable for a school library, even in the digital age.

R7-6-222. through R7-6-224. Reserved

R7-6-225. Cafeterias

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general requirement for space available on a regular basis where students can eat within the school site.

R7-6-226. Food Service

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general criteria and functional requirements for food service activities.

R7-6-227. Equipment List for Food Service

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the specific fixture and equipment requirements for food service.

R7-6-228. and R7-6-229. Reserved

R7-6-230. Auditoriums, Multipurpose rooms, or Other Multiuse Space

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general requirements related to student assembly space and how the measurement of that space is to be made.

R7-6-235. Technology

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general minimum adequacy requirements relative to information technology equipment and software.

Proposed Course of Action: Currently designated subsection C. of this rule should be stricken because it refers to a deadline of June 30, 2005, before which time each district was to have had "an application services provider", coupled with an adequate variety of instructional software. This will require the re-numbering of the current subsection D. to R7-6-235. (C.)

R7-6-236. through R7-6-239. Reserved

R7-6-240. Transportation

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the replacement standards for pupil transportation vehicles.

R7-6-241. through R7-6-244. Reserved

R7-6-245. Science Facilities

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general square footage minimum requirements for space devoted to practical science instruction.

R7-6-246. Equipment List for Science Facilities

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of minimum adequacy requirements relative to specific fixtures and equipment necessary for practical science instruction.

R7-6-247. Art Facilities

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general and specific minimum adequacy square footage requirements for space devoted to art education programs.

R7-6-248. Vocational Education Facilities

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general and specific square footage requirements to provide space for vocational education programs.

R7-6-249. Physical Education and Comprehensive Health Program Facilities

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general and specific square footage requirements for space devoted to physical education and comprehensive health programs.

R7-6-250. Equipment List for Physical Education

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the specific fixture and equipment requirements for physical education.

R7-6-251. Alternate Delivery Method

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the local governing board approval requirements relative to the use of alternate delivery methods of instruction in art, science, or vocational education.

R7-6-252. through 254. Reserved

R7-6-255. Parent Work Space

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general and specific square footage requirements when providing for parent work space.

Proposed Course of Action: R7-6-255.(A.) should be amended by striking the clause "If parents are invited to assist with school activities," making the balance of the rule a simple declarative sentence.

R7-6-256. Two-way Internal Communication System

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the minimum adequacy requirements for an internal communication system.

R7-6-257. Fire Alarm

Authorization: A.R.S. § 15-2011.(B.)

Objective: This rule informs local school districts and the public of the requirement to provide a fire alarm system that is approved by the State Fire Marshal.

R7-6-258. Administrative Space

Authorization: A.R.S. § 15-2011.(F.)

Objective: This rule informs local school districts and the public of the general and specific requirements for providing various types of administrative space in school facilities.

Proposed Course of Action: Subsection A of this section requires a typographical correction in the following sentence: "For general administrative purposes ~~and~~ AN additional 1.5 square feet per student is required." Subsection C. of this section requires an amendment to correct a typographical error and to simplify its syntax, as indicated here:

"~~"~~C. A school facility shall have work space available to the faculty~~.~~ CONSISTING OF ONE SQUARE FOOT PER STUDENT WITH A MINIMUM OF 150 SQUARE FEET AND A MAXIMUM OF 800 SQUARE FEET. This space is in addition to any work area available to a teacher, ~~that is~~ in or near a classroom. ~~One square foot per student with a maximum of 150 square feet and a maximum of 800 square feet is required~~. The maximum may be exceeded. The space may be divided into more than one room. This space may have more than one function."

R7-6-259. Reserved

R7-6-260. Laws and Building Codes

Authorization: A.R.S. § 15-2011.(B.)

Objective: This rule informs local school districts and the public of the general requirement to conform to applicable laws and building codes, and specifies the 1997 Uniform Building Code (UBC) as the minimum code compliance level.

Proposed Course of Action: The following amendment to this section is desirable in order to update the reference to the most up-to-date applicable codes.

"A." No change.

"B. ~~At a minimum, the 1997 Uniform Building Code (UBC) is required to be met for new school facility construction and, as required, for building renovations in existing schools.~~ NEW SCHOOL FACILITY CONSTRUCTION SHALL, AT A MINIMUM, MEET THE REQUIREMENTS ESTABLISHED BY THE BUILDING CODE ADOPTED AND ENFORCED BY THE MUNICIPAL JURISDICTION IN WHICH THE SCHOOL SITE RESIDES. IN THE EVENT THE SCHOOL SITE IS OUTSIDE OF THE CORPORATE LIMITS OF A MUNICIPALITY, THE REQUIREMENTS OF THE BUILDING CODE ADOPTED BY THE LARGEST CITY IN THE COUNTY WITHIN WHICH THE SCHOOL SITE RESIDES, SHALL APPLY. REFERENCE A.R.S. §34-461"

R7-6-261. Energy Saving Measures

Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S. § 15-2011.(F.) and A.R.S. § 15-2022.(A.)

Objective: This rule informs local school districts and the public of the ability to provide energy conservation upgrades under certain conditions.

R7-6-262. through R7-6-264. Reserved

R7-6-265. Building Systems

Authorization: A.R.S. § 15-2011.(B.)

Objective: This rule informs local school districts and the public of the qualities for a building system to be considered in working order and capable of being maintained.

R7-6-266. through R7-6-269. Reserved

R7-6-270. Building Structural Soundness

Authorization: A.R.S. § 15-2011.(B.)

Objective: This rule informs local school districts and the public of the qualities required of a building's structural systems for it to be considered structurally sound.

R7-6-271. Exterior Envelope, Interior Surfaces and Interior Finishes

Authorization: A.R.S. § 15-2011.(B.)

Objective: This rule informs local school districts and the public of the qualities for the exterior envelope, interior surfaces, and finishes to be considered safe and capable of being maintained.

R7-6-272. through R7-6-274. Reserved

R7-6-275. Minimum Gross Square Footage

Authorization: A.R.S. § 15-2011.(C.)

Objective: This rule informs local school districts and the public of the general requirement to provide minimum adequate gross square footage by school district.

R7-6-276. Assessment of Minimum Gross Square Footage

Authorization: A.R.S. § 15-2011.(C.)

Objective: This rule informs local school districts and the public of the specific requirements to provide per pupil square footage according to various grade configurations.

Proposed Course of Action: The following two amendments are proposed to correct grammar: Subsections R7-6-276. "A." through "D." No Change. Subsection R7-6-276.(E.) "For the purpose of assessment of THE minimum gross square footage REQUIREMENT, the number of children in all grades and kindergarten shall be evenly distributed across all grades and kindergarten served by the district."

R7-6-277. through R7-6-284. Reserved

R7-6-285. Guidelines Exception

Authorization: A.R.S. § 15-2011.(H.)

Objective: This rule informs local school districts and the public of the ability of the Board to grant an exception that will still meet guideline requirements.

Article 3. Square Footage Calculations

R7-6-301. Square Footage Calculations

Authorization: A.R.S. § 15-2041.(D.)

Objective: This rule informs local school districts and the public of the calculation methodology to be used to determine SFB funding levels in those cases where school districts have either Class A or Class B bond funding available.

Proposed Course of Action: A.R.S. §15-2011 provides sufficient detail, making subsection B. of this section of rules unnecessary. Striking R7-6-301.(B.) will require the renumbering of the subsequent sub-sections.

In order for renumbered R7-6-C (formerly subsection D.), to read more clearly, it shall be amended thus: "~~D.~~ C. A school district that uses Class B bonds and/or unrestricted capital outlay monies to add or replace square footage at existing schools shall have the additional square footage or replacement square footage treated as follows:

"1. When ~~A~~ a school district ~~that~~ adds square footage to an existing school with the use of Class B bonds or unrestricted capital outlay monies, ~~shall not have the additional square footage included in the determination of minimum adequate square footage pursuant to A.R.S. § 15-2011(C), but~~ the School Facilities Board shall consider the additional square footage for purposes of determining adequacy of the functional components of the school as specified in the Minimum School Facilities Guidelines set forth in R7-6-201 through R7-6-285.

"2. When ~~A~~ a school district that both removes and adds square footage with the use of Class B bonds or unrestricted capital outlay monies ~~shall not have the net additional square footage included in the determination of minimum adequate square footage pursuant to A.R.S. § 15-2011(C), but~~ IF THAT SPACE MEETS THE REQUIREMENTS ENUMERATED AT A.R.S. §15-2011.(D.) AND A.R.S. § 15-2991. (E.), the School Facilities Board shall consider the net additional square footage for purposes of determining adequacy of the functional components of the school as specified in the Minimum School Facilities Guidelines set forth in R7-6-201 through R7-6-285.

"3. ~~For purposes of calculating building renewal pursuant to A.R.S. § 15-2031, replacement square footage constructed with Class B bonds or unrestricted capital outlay monies shall be included, but net additional square footage shall be excluded.~~

Subsection 3 above shall be struck because A.R.S. §15-2031 has been repealed (Laws 2013, 1st S.S., Ch. 3, § 42).

R7-6-301. E. shall be renumbered to R7-6-301.(D.), but otherwise not changed.

R7-6-301. (F.) Explains the methodology for expansion of core facilities. Subsection F. shall be struck, because the SFB no longer funds core facilities.

R7-6-302. Modification of Square Footage for Geographic Factors
Authorization: A.R.S. § 15-2041.(D.)
Objective: This rule informs local school districts and the public of the specific requirements to provide per pupil square footage according to various grade configurations.

Article 4. Expired effective June 30, 2005 [05-3].

Article 5. New School and Land Funding

R7-6-501. Capital Plans

Authorization: A.R.S. § 15-2041.(C.)

Objective: This rule informs school districts that the SFB requires them to submit a capital plan to show their need for a new school, or for an addition to an existing school, or for additional land within the prescribed time horizons for each of those scenarios.

R7-6-502. Funding for New Schools or Additional Square Footage

Authorization: A.R.S. § 15-2041(C.), (D.), (E.), (F.), and (J.)

Objective: This rule informs school districts and the public of the process and requirements for receiving funding for new schools or additional square footage to existing school facilities.

Proposed Course of Action: Under subsection (B.), the rule will be clarified to reflect "site" rather than "square footage", since the public comments solicited from the military airport are utilized at the beginning of the process for site selection, rather than the point at which determination is made for school funding. Under (D.), a school district's acceptance of a project is indicated by its acceptance of the Terms and Conditions, therefore the phrase "has accepted a project in writing and" is redundant and will be struck. Also under subsection (D.), the phrase "shall be made available" will be inserted before "for architectural and engineering fees" to clarify that five percent of the approved project monies are made available, rather than five percent of the architectural and engineering fees. Under subsection (E.), "the word "five" will be replaced by "three" to indicate the actual amount required as a contingency in the estimated budget. Under subsection (G.), the phrase "construction documents" will be substituted for "schematic design", and the word "final" will be substituted for "preliminary", to reflect actual practice. Also under subsection (G.), the phrase "to the Board" will be struck to reflect the actual practice that review of construction documents, budget estimates, and bid package are staff level functions. Under subsection (H.), the word "full" will be struck. Under subsection I., the multiple references to "one year" will be changed to "three year" to reflect actual practice.

R7-6-503. Funding for Land

Authorization: A.R.S. § 15-2041.(C.)

Objective: This rule informs local school districts and the public of the specific steps involved in the approval and payment for land purchases for new school sites.

R7-6-504. Donations of Real Property

Authorization: A.R.S. § 15-2041.(F.)

Objective: This rule informs local school districts and the public of the specific steps involved in the approval of and compensation for land donations for new school sites.

Proposed Course of Action: In order for this section to more closely reflect SFB policy and current practice the following amendments are proposed:

"R7-6-504. Donations of Real Property

"Subsections "A." through "C." No change.

"D. If the Board approves the district request to accept the donation, the Board staff shall notify the district. The BOARD'S STAFF SHALL DISTRIBUTE ~~distribution of~~ 20 percent of the BOARD APPROVED FAIR MARKET value of the accepted donation pursuant to A.R.S. § 15-2041.(F.) ~~shall be awarded~~ to the school district ~~upon notification to the Board that the donation has been accepted by the district~~ AT THE START OF CONSTRUCTION. The district shall submit documentation of its governing board action and documentation that the property title has been transferred to the district. ~~Upon receipt of this documentation Board staff shall be authorized to distribute the approved 20 percent amount.~~

"E." No change.

"F. In determining whether the real property proposed for donation is ~~at~~ an appropriate school site, the School Facilities Board Staff analysis shall be based on the following:

1. Location of the proposed donation of real property.
2. District needs for additional student capacity.
3. District needs for additional land (for site donations only).
4. Usable acres proposed for donation, taking into consideration School Facilities Board adopted usable acreage requirements.
5. The ability of a proposed site donation to accommodate a school facility that meets the minimum adequacy guidelines (for site donations only), or the adequacy of a proposed school facility donation.
6. Estimated site development costs.
7. Age and condition of the real property (for facility donation only).
8. Portion of real property that can be used for academic purposes.
9. THE FAIR MARKET VALUE OF THE PROPERTY THAT IS USABLE FOR ACADEMIC PURPOSES.

"Subsections "G." and "H." No change.

R7-6-505. Constructing Bond-Funded Schools on Land Funded by the School Facilities Board

Authorization: A.R.S. § 15-2041.(F.)

Objective: This rule informs local school districts and the public of the ability and requirements of the Board to provide funding for land used as sites for Class A and Class B bond funded schools.

Proposed Course of Action: An amendment to R7-6-505.(B.) is proposed to clarify and emphasize the requirement contained in statute concerning

the circumstance described by this section. That amendment would simply add the following phrase to the last sentence of R7-6-505.(B.) "… , EXCEPT AS MAY BE REQUIRED BY A.R.S. §15-2011."

R7-6-506. Providing Technical Assistance in the Form of Project Management

Authorization: A.R.S. §§ 15-2002.(B.)(2.) and 15-2002.(C.)

Objective: This rule informs local school districts and the public of the ability and requirements of the Board in providing funding for project management.

Proposed Course of Action: Additional language is proposed at R7-6-506.(C.) to clarify the process to be used to apply for additional funding, and the constraints of the current appropriations. The proposed additional language will be developed prior to the initiation of our proposed rulemaking.

R7-6-507. through R7-6-511. Reserved

Article 6. Contingency Funds

R7-6-601. Allocation and Use of Contingency Monies

Authorization: A.R.S. § 15-2041.(A.)

Objective: This rule informs local school districts and the public of the requirement and steps for utilization of contingency monies in new school and deficiencies correction construction.

Proposed Course of Action: The following amendments to this section are proposed to more closely reflect the policy and accepted practice by the SFB in the control of contingency monies:

"A. ~~A sum equal to a percentage of the construction bid shall be set aside as a contingency fund to cover the cost of unknown conditions that could arise during construction.~~ The School Facilities Board shall set aside an amount equal to ~~five~~ THREE percent of the base cost for new construction TO COVER THE COST OF UNKNOWN CONDITIONS THAT COULD ARISE DURING CONSTRUCTION. ~~and ten percent of the base cost for renovation of a structure or system replacement to cover these potential costs.~~ Contingency ~~funds~~ MONIES are not part of the construction budget and SHALL NOT BE ~~are to be~~ used UNLESS ~~only if~~ needed. ~~For deficiency corrections projects, any contingency funds which are not used shall be returned to the deficiency corrections fund.~~ For projects funded by the new school facilities fund, any contingency ~~funds~~ MONIES ~~which~~ THAT are not used may be used by the school district in accordance with A.R.S. § 15-2041."

"B. " No change.

"C." No change.

"D. The following conditions apply to the use of all contingency monies allocated to a specific project approved by the School Facilities Board.

1. If the district wishes to issue change orders that do not comply with THIS SUBSECTION ~~these rules~~, the associated costs shall be:
a. accounted for separately,
b. ~~and~~ not considered part of the approved project, and
c. ~~In other words, they would need to be~~ paid out of separate monies and would not be considered part of the approved project, even ~~though they might be~~ IF included in the same basic contract. ~~These costs would be paid for using local funds.~~
~~1.~~2. The school district may use contingency monies only to cover change orders that are to correct unknown conditions.
~~2.~~3. A school district shall not use contingency ~~funds~~ MONIES ~~may not be used~~ to cover change orders for the other two types of situations discussed in subsection (B) ~~above~~ WHERE: A. the district has determined to change the scope of work during construction by adding components AS DISCUSSED UNDER SUBSECTION (B)(2)~~,~~ or B. a change is required to correct a discrepancy created by the architect that could be considered an error or omission by the architect AS DISCUSSED UNDER SUBSECTION (B)(3).
~~3. For deficiency correction projects performed pursuant to A.R.S. § 15-2021 only, the Executive Director shall have the discretion to authorize the use of contingency funds for expansion of scope, to accommodate low budget estimates, and for all other project related costs.~~
4. Contingency monies shall not be used to pay for "bid add alternates." These items are not part of the final approved project.
~~"E. A school district whose deficiency correction projects are combined with the deficiency correction projects of one or more additional school districts pursuant to R7-6-401 shall have the contingency amount included as a percentage of the overall set of projects that have been grouped together for such purposes. The Executive Director shall have the discretion to use, transfer, and/or combine the contingency amounts for any projects within such a group to any other project within the group of projects. The Executive Director's adjustment authority pursuant to R7-6-401 shall be considered as a percentage or sum of the overall group of projects.~~
~~"F.~~ E. The Board may modify or waive the requirements of this section for good cause."

Article 7. Minimum School Facility Guidelines for the Arizona State Schools for the Deaf and Blind (ASDB)

R7-6-701. Applications

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public that there are separate minimum facility guidelines for the Arizona State Schools for the Deaf and Blind, and deficiency corrections projects are subject to legislative funding.

R7-6-702. through R7-6-705. Reserved

R7-6-705. School Site

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the criteria required as a minimum guideline related to physical siting.

R7-6-706. through R7-6-709. Reserved

R7-6-710. Academic Classroom Space

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the various square footage criteria requirements by grade configuration.

R7-6-711. Classroom Fixtures and Equipment

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the various general requirements related to seating, writing surfaces, storage, and specialty equipment for general and specialty classrooms.

R7-6-712. Classroom Lighting

Authorization: A.R.S. §15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to light levels and how the measurement of those levels is to be made.

R7-6-713. Classroom Temperature

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to temperature range and how the measurement of that range is to be made.

R7-6-714. Classroom Acoustics

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to background sound level and how the measurement of that level is to be made.

R7-6-715. Classroom Air Quality

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to maximum carbon dioxide level and how the measurement of that level is to be made.

R7-6-716. Education Classroom Facilities for Disabled Students

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to space or access to space for disabled students.

R7-6-717. through R7-6-719. Reserved

R7-6-720. Library and Media Centers/Research Area

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the specific requirements related to equipment, books, and furniture as a minimum guideline.

R7-6-721. Equipment for Libraries and Media Centers/Research Area

Authorization: See the A.A.R. Editor's Notes at the beginning of A.A.C. Title 7, Chapter 6. Also, this rule is generally authorized by A.R.S.§ 15-2011.F. and A.R.S. § 15-2022.(A.)

Objective: This rule informs the ASDB and the public of the minimum adequacy standards for equipment, books, and other resources required for school libraries and Media Centers.

Proposed Course of Action: R7-6-221.(A.)(4.) requires an amendment striking the reference to "VCR" equipment to "VIDEO DISPLAY" to reflect the newer generation of video play-back technologies. R7-6-221.(B.) should be stricken because of its reference to encyclopedia and atlas publication dates of 2000 or later. Printed encyclopedia and atlas references have been largely replaced by access to online references that are up-to-date.

R7-6-722. through R7-6-724. Reserved

R7-6-725. Cafeterias

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general requirement to provide space for students to eat within the school site.

R7-6-726. Food Service

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general criteria and functions required for food service activities.

R7-6-727. Equipment List for Food Service

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the specific fixture and equipment requirements for food service.

R7-6-728. through R7-6-729. Reserved

R7-6-730. Auditoriums, Multipurpose rooms, or Other Multiuse Space

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to student assembly space and how the measurement of that space is to be made.

R7-6-731. through R7-6-734. Reserved

R7-6-735. Technology

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general requirements related to information technology equipment and software.

R7-6-736. through R7-6-739. Reserved

R7-6-740. Transportation

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the replacement standards for pupil transportation vehicles.

R7-6-741. through R7-6-744. Reserved

R7-6-745. Science Facilities

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general square footage requirements to provide space for practical science instruction.

R7-6-746. Equipment List for Science Facilities

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the specific fixture and equipment requirements for practical science instruction.

R7-6-747. Art Facilities

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general and specific square footage requirements to provide space for art education programs.

R7-6-748. Vocational Education Facilities

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general and specific square footage requirements to provide space for vocational education programs.

R7-6-749. Physical Education and Comprehensive Health Program Facilities

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general and specific square footage requirements to provide space for a comprehensive health program.

R7-6-750. Equipment List for Physical Education

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the specific fixture and equipment requirements for physical education.

R7-6-751. Alternate Delivery Method

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the approval requirements related to alternate delivery methods of instruction.

R7-6-752. through R7-6-754. Reserved

R7-6-755. Parent Work Space

Authorization: A.R.S. § 15-2002.(A.) and A.R.S. § 15-2011.(F.)

Objective: This rule informs the ASDB and the public of the general and specific square footage requirements when providing for parent work space.

Proposed Course of Action: R7-6-755.(A.) should be amended by striking the clause "If parents are invited to assist with school activities," making the balance of the rule a simple declarative sentence.

R7-6-756. Two-way Internal Communication System

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general requirement to provide an internal communication system.

R7-6-757. Fire Alarm

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the requirement to provide an approved fire alarm system.

R7-6-758. Administrative Space

Authorization: A.R.S. § 15-2002 (A)

Objective: This rule informs the ASDB and the public of the general and specific requirements to provide for various types of school administrative space.

Proposed Course of Action: R7-6-758.(A.) of this section requires a typographical correction in the following sentence: "For general administrative purposes ~~and~~ AN additional 7.5 square feet per student is required."

There are several grammatical mistakes in R7-6-758.C. The following proposed amendment corrects them and simplified its syntax:
"C. A school facility shall have work space available to the faculty, CONSISTING OF ONE SQUARE FOOT PER STUDENT WITH A MINIMUM OF 150 SQUARE FEET AND A MAXIMUM OF 800 SQUARE FEET. This space is in addition to any work area available to a teacher, ~~that is~~ in or near a classroom. ~~One square foot per student with a maximum of 150 square feet and a maximum of 800 square feet is required~~. The maximum may be exceeded. The space may be divided into more than one room. This space may have more than one function."

R7-6-759. Reserved

R7-6-760. Laws and Building Codes

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the general requirement to conform to applicable laws and building codes, and specifies a minimum code level.

Proposed Course of Action: The following amendment to this section is desirable in order to update the reference to the most up-to-date applicable codes.

"A." No change.

"B. ~~At a minimum, the 1997 Uniform Building Code (UBC) is required to be met for new school facility construction and, as required, for building renovations in existing schools.~~ NEW SCHOOL FACILITY CONSTRUCTION SHALL, AT A MINIMUM, MEET THE REQUIREMENTS ESTABLISHED BY THE BUILDING CODE ADOPTED AND ENFORCED BY THE MUNICIPAL JURISDICTION IN WHICH THE SCHOOL SITE RESIDES. IN THE EVENT THE SCHOOL SITE IS OUTSIDE OF THE CORPORATE LIMITS OF A MUNICIPALITY, THE REQUIREMENTS OF THE LARGEST CITY IN THE COUNTY WITHIN WHICH THE SCHOOL SITE RESIDES, SHALL APPLY. REFERENCE A.R..S §34-461"

R7-6-761. Energy Saving Measures

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the ability to provide energy conservation upgrades under certain conditions. However, this rule does not address the statutory prohibition (A.R.S. §15-2041.(D.)(3.)(c)), at which allows modification to the base cost per square foot only for geographic or site conditions.

Proposed Course of Action: Prior comments about this section suggest that it is in conflict with A.R.S. §15-2041.(D.)(3.)(c). Another observation was made that its requirement of an 8 year pay-back period is inconsistent with the allowable twenty-five year pay-back period specified at A.R.S. §15-213.01.(B.) relating to energy cost saving measures paid through a

guaranteed energy cost savings contract (a performance contract) with a qualified provider. Upon closer review, it becomes evident that this rule is not in conflict with either of these statutory provisions. These are two different and distinct circumstances and are not conflicting.

R7-6-762. through R7-6-764. Reserved

R7-6-765. Building Systems

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the qualities for a building system to be considered in working order and capable of being maintained.

R7-6-766. through R7-6-769. Reserved

R7-6-770. Building Structural Soundness

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the qualities for a building system to be considered structurally sound.

Proposed Course of Action: Laws 2010, Ch. 39 (HB2760) add a specific reference to the structural condition of school facilities roof systems to the existing requirement for school districts to develop routine preventative maintenance checklist guidelines (guidelines) for its facilities and to submit the guidelines to the SFB for review and approval.

R7-6-771. Exterior Envelope, Interior Surfaces and Interior Finishes

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the qualities for the exterior envelope, interior surfaces and finishes to be considered safe and capable of being maintained.

R7-6-772 . through R7-6-774. Reserved

R7-6-775. Minimum Gross Square Footage

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the general requirement to provide minimum adequate gross square footage by school district.

R7-6-776. Assessment of Minimum Gross Square Footage

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the specific requirements to provide per pupil square footage according to various grade configurations.

R7-6-777. Through R7-6-779. Reserved

R7-6-780. Student Boarding Space

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general and specific requirements to provide student boarding for resident ASDB students.

R7-6-781. ASDB Program Requirement Facilities

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general and specific requirements to provide certain specialized program facilities for particular student populations.

R7-6-782. Student Health Center

Authorization: A.R.S. § 15-2002 .(A.)

Objective: This rule informs the ASDB and the public of the general and specific requirements to house a student health center.

R7-6-783. Parent Outreach Program

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the general and specific requirements to house a parent outreach program at each campus.

R7-6-784. through R7-6-789. Reserved

R7-6-790. Guidelines Exception

Authorization: A.R.S. § 15-2002.(A.)

Objective: This rule informs the ASDB and the public of the ability of the School Facilities Board to grant an exception that will still meet guideline requirements.

Article 8. through Article 16. Repealed by exempt rulemaking at A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

Exhibit A. Repealed by exempt rulemaking at A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

TITLE 7. EDUCATION

CHAPTER 6. SCHOOL FACILITIES BOARD

Editor's Note: The Office of the Secretary of State publishes all Code Chapters on white paper (Supp. 01-4).

Editor's Note: This Chapter contains rules which were adopted, amended, repealed, or renumbered under an exemption from the Arizona Administrative Procedure Act (A.R.S. Title 41, Chapter 6), pursuant to Laws 1998, 5th Special Session, Chapter 1, section 55, as amended by Laws 1999, Chapter 299, section 39. Because this Chapter contains rules which are exempt from the regular rulemaking process, it is printed on blue paper.

Title 7, Chapter 6, adopted by exempt rulemaking at 6 A.A.R. 597, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1).

ARTICLE 1. DEFINITIONS

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R7-6-101. Definitions
R7-6-102. Repealed

ARTICLE 2. MINIMUM SCHOOL FACILITY GUIDELINES

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R7-6-203. Reserved
R7-6-204. Reserved
R7-6-205. School Site
R7-6-206. Reserved
R7-6-207. Reserved
R7-6-208. Reserved
R7-6-209. Reserved
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R7-6-211. Classroom Light
R7-6-212. Reserved
R7-6-213. Classroom Temperature
R7-6-214. Classroom Acoustic
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R7-6-216. Education Classroom Facilities for Disabled Students
R7-6-217. Reserved
R7-6-218. Reserved
R7-6-219. Reserved
R7-6-220. Libraries and Media Centers/Research Area
R7-6-221. Equipment for Libraries and Media Centers/Research Area
R7-6-222. Reserved
R7-6-223. Reserved
R7-6-224. Reserved
R7-6-225. Cafeterias
R7-6-226. Food Service
R7-6-227. Equipment List for Food Service
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R7-6-229. Reserved
R7-6-230. Auditoriums, Multipurpose Rooms, or Other Multiuse Space
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R7-6-232. Reserved
R7-6-233. Reserved
R7-6-234. Reserved
R7-6-235. Technology
R7-6-236. Reserved
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R7-6-239. Reserved
R7-6-240. Transportation
R7-6-241. Reserved
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R7-6-243. Reserved
R7-6-244. Reserved
R7-6-245. Science Facilities
R7-6-246. Equipment List for Science Facilities
R7-6-247. Art Facilities
R7-6-248. Vocational Education Facilities
R7-6-249. Physical Education and Comprehensive Health Program Facilities
R7-6-250. Equipment List for Physical Education
R7-6-251. Alternative Delivery Method
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R7-6-253. Reserved
R7-6-254. Reserved
R7-6-255. Parent Work Space
R7-6-256. 2-Way Internal Communication System
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R7-6-258. Administrative Space
R7-6-259. Reserved
R7-6-260. Laws and Building Codes
R7-6-261. Energy Saving Measures
R7-6-262. Reserved
R7-6-263. Reserved
R7-6-264. Reserved
R7-6-265. Building Systems
R7-6-266. Reserved
R7-6-267. Reserved
R7-6-268. Reserved
R7-6-269. Reserved
R7-6-270. Building Structural Soundness
R7-6-271. Exterior Envelope, Interior Surfaces and Interior Finishes
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R7-6-273. Reserved
R7-6-274. Reserved
R7-6-275. Minimum Gross Square Footage
R7-6-276. Assessment of Minimum Gross Square Footage
R7-6-277. Reserved
R7-6-278. Reserved
R7-6-279. Reserved
R7-6-280. Expired
R7-6-281. Reserved
R7-6-282. Reserved
R7-6-283. Reserved
R7-6-284. Reserved
R7-6-285. Guidelines Exception

ARTICLE 3. SQUARE FOOTAGE CALCULATIONS

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R7-6-301. Square Footage Calculations
R7-6-302. Modification of Square Footage for Geographic Factors
R7-6-303. Repealed
R7-6-304. Repealed
R7-6-305. Repealed
R7-6-306. Repealed

R7-6-307. Reserved
through
R7-6-320. Reserved
R7-6-321. Repealed

ARTICLE 4. EXPIRED

Article 4, consisting of Section R7-6-401, expired under A.R.S. § 41-1056(E) at 11 A.A.R. 3252, effective June 30, 2005 (05-3).

Section
R7-6-401. Expired

ARTICLE 5. NEW SCHOOL AND LAND FUNDING

Section
R7-6-501. Capital Plans
R7-6-502. Funding for New Schools or Additional Square Footage
R7-6-503. Funding for Land
R7-6-504. Donations of Real Property
R7-6-505. Constructing Bond Funded Schools on Land Funded by the School Facilities Board
R7-6-506. Providing Technical Assistance in the Form of Project Management
R7-6-507. Reserved
R7-6-508. Reserved
R7-6-509. Reserved
R7-6-510. Reserved
R7-6-511. Repealed

ARTICLE 6. CONTINGENCY FUNDS

Section
R7-6-601. Allocation and Use of Contingency Monies

ARTICLE 7. MINIMUM SCHOOL FACILITY GUIDELINES FOR THE ARIZONA STATE SCHOOLS FOR THE DEAF AND BLIND

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R7-6-703. Reserved
R7-6-704. Reserved
R7-6-705. School Site
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R7-6-708. Reserved
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R7-6-716. Education Classroom Facilities for Disabled Students
R7-6-717. Reserved
R7-6-718. Reserved
R7-6-719. Libraries and Media Centers/Research Area
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R7-6-721. Equipment for Libraries and Media Centers/ Research Area
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R7-6-723. Reserved
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R7-6-725. Cafeterias
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R7-6-727. Equipment List for Food Service
R7-6-728. Reserved
R7-6-729. Reserved
R7-6-730. Auditoriums, Multipurpose Rooms, or Other Multiuse Space
R7-6-731. Reserved
R7-6-732. Reserved
R7-6-733. Reserved
R7-6-734. Reserved
R7-6-735. Technology
R7-6-736. Reserved
R7-6-737. Reserved
R7-6-738. Reserved
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R7-6-741. Reserved
R7-6-742. Reserved
R7-6-743. Reserved
R7-6-744. Reserved
R7-6-745. Science Facilities
R7-6-746. Equipment List for Science Facilities
R7-6-747. Art Facilities
R7-6-748. Vocational Education Facilities
R7-6-749. Physical Education and Comprehensive Health Program Facilities
R7-6-750. Equipment List for Physical Education
R7-6-751. Alternative Delivery Method
R7-6-752. Reserved
R7-6-753. Reserved
R7-6-754. Reserved
R7-6-755. Parent Work Space
R7-6-756. Two-Way Internal Communication System
R7-6-757. Fire Alarm
R7-6-758. Administrative Space
R7-6-759. Reserved
R7-6-760. Laws and Building Codes
R7-6-761. Energy Saving Measures
R7-6-762. Reserved
R7-6-763. Reserved
R7-6-764. Reserved
R7-6-765. Building Systems
R7-6-766. Reserved
R7-6-767. Reserved
R7-6-768. Reserved
R7-6-769. Reserved
R7-6-770. Building Structural Soundness
R7-6-771. Exterior Envelope, Interior Surfaces and Interior Finishes
R7-6-772. Reserved
R7-6-773. Reserved
R7-6-774. Reserved
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R7-6-776. Assessment of Minimum Gross Square Footage
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R7-6-778. Reserved
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R7-6-780. Student Boarding Space
R7-6-781. ASDB Program Requirement Facilities
R7-6-782. Student Health Center
R7-6-783. Parent Outreach Program
R7-6-784. Reserved
R7-6-785. Expired
R7-6-786. Expired
R7-6-787. Expired
R7-6-788. Expired
R7-6-789. Expired

R7-6-790. Guidelines Exception

ARTICLE 8. REPEALED

Section
R7-6-801. Repealed

ARTICLE 9. REPEALED

Section
R7-6-901. Repealed
R7-6-902. Reserved
through
R7-6-910. Reserved
R7-6-911. Repealed
R7-6-912. Reserved
through
R7-6-920. Reserved
R7-6-921. Repealed
R7-6-922. Reserved
through
R7-6-930. Reserved
R7-6-931. Repealed
R7-6-932. Reserved
through
R7-6-940. Reserved
R7-6-941. Repealed

ARTICLE 10. REPEALED

Section
R7-6-1001. Repealed
R7-6-1002. Repealed
R7-6-1003. Repealed
R7-6-1004. Repealed

ARTICLE 11. REPEALED

Section
R7-6-1101. Repealed

ARTICLE 12. REPEALED

Section
R7-6-1201. Repealed

ARTICLE 13. REPEALED

Section
R7-6-1301. Repealed
R7-6-1302. Repealed

ARTICLE 14. REPEALED

Section
R7-6-1401. Repealed
R7-6-1402. Repealed

ARTICLE 15. REPEALED

Section
R7-6-1501. Repealed

ARTICLE 16. REPEALED

Section
R7-6-1601. Repealed

EXHIBIT A. REPEALED

ARTICLE 1. DEFINITIONS

R7-6-101. Definitions

In this Chapter, unless otherwise specified, the following terms mean:

1. "Ambient CO2 Level" means the carbon dioxide level of the outside air.
2. "All weather surface" means a vehicular use and/or parking area that shall be surfaced with one of the following: asphalt, concrete, chip seal, graded and compacted gravel, or other stabilized system.
3. "Area" means exterior covered or uncovered portion of a school site.
4. "Board" means the School Facilities Board.
5. "Decibel" means a unit in which various acoustical hearing level quantities are expressed.
6. "Eligible students" means eligible students as defined in A.R.S. § 15-901(A)(9).
7. "Equipment" means a specified item not affixed to the real property of a school facility.
8. "Executive Director" means Executive Director of the School Facilities Board as set forth in A.R.S. § 15-2002(C).
9. "Exterior envelope" means the exterior walls, floor, and roof of a building.
10. "Fixture" means a specified item that is affixed to the real property of a school facility.
11. "Footcandle" means the direct light thrown, on a square foot of surface, by a candle 7/8 inch in diameter burning at 7.776 grams per hour.
12. "FTE" means full-time equivalent.
13. "General Classroom" means a classroom space that is or can be appropriately configured for instruction in at least the areas of language arts, mathematics, and social studies.
14. "HVAC" means heating, ventilation, and air conditioning system. This does not necessarily mean a refrigerated air conditioning system.
15. "Normal Conditions" means occupancy during regular school hours while the building system is operating.
16. "PPM" means parts per million.
17. "Pupil" means student.
18. "Pupil transportation vehicle" means a bus used to transport eligible students between their residence and a school facility for the academic day or a vehicle used to transport eligible disabled students between their residence and a school facility for the academic day.
19. "Random" means arbitrary selection through a process of assigning numbers to each classroom in each building to be assessed.
20. "School facility" means a building or group of buildings and outdoor area that are administered together to comprise a school campus.
21. "School site" means one or more parcels of land where a school facility is located. More than one school facility may be located on a school site.
22. "Space" means square footage located within the interior of a building.
23. "Specialty classroom" means a classroom space that is or can be appropriately configured for instruction in a specific subject such as science, physical education, or art.
24. "Student body" means the number of students at a school facility.
25. "Student" means the number of students in average daily membership. Average daily membership is defined as the

attending average enrollment of fractional students and full time students, minus withdrawals, of each school day through the first 100 days in session, not adjusted for average daily attendance.

26. "Transportation capacity" means the number of passenger seats, according to manufacturer specifications, available on all of the pupil transportation vehicles owned by the school district, multiplied by two.

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Amended by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-102. Repealed

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 2. MINIMUM SCHOOL FACILITY GUIDELINES

R7-6-201. Application

The provisions of this Article are applicable to a school facility and equipment that are necessary to meet the minimum school facility guidelines established in this Article or to meet the gross square footage standards prescribed by law.

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-202. Reserved

R7-6-203. Reserved

R7-6-204. Reserved

R7-6-205. School Site

A. A school site shall have safe access, parking, drainage, security, and area to accommodate a school facility that complies with the minimum gross square footage requirements established in A.R.S. § 15-2011, for the number of students at the school facility and that comply with these guidelines.

B. "Safe access" means a student drop off area or pedestrian pathway that allows students to enter the school facility without crossing vehicular traffic or by using a designated crosswalk. Any student drop off area that is used by a bus must be configured to accommodate bus width and turning requirements.

C. "Parking means a maintainable all weather surfaced area that is large enough to accommodate one parking space per staff FTE and one visitor parking space per 100 students. If this definition is not met, the sufficiency of the parking at the site is subject to review by the Board using the following criteria:

1. Availability of street parking around the school;
2. Availability of any nearby parking lots;
3. Availability of public transit;
4. Number of staff that drive to work on a daily basis; and
5. The average number of visitors on a daily basis.

D. "Drainage" means that a school site is configured such that runoff does not undermine the structural integrity of the school buildings located on the site or create flooding, ponding, or erosion resulting in a threat to health, safety, or welfare.

E. "Security" means a fenced or walled play/physical education area for students in programs for preschool children with disabilities and kindergarten and students in grades one through six. This definition is met if the entire school is fenced or walled. If this definition is not met, the sufficiency of security at the site is subject to review by the Board using the following criteria:

1. Amount of vehicular traffic near the school site;
2. Existence of hazardous or natural barriers on or near the school site;
3. The amount of animal nuisance near the school site; and
4. Visibility of the play/physical education area.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-206. Reserved

R7-6-207. Reserved

R7-6-208. Reserved

R7-6-209. Reserved

R7-6-210. Academic Classroom Space

A. A school district shall have school facilities with cumulative classroom square footage of 32 square feet for each student in programs for preschool children with disabilities, kindergarten programs and grades one through three in the district.

B. A school district shall have school facilities with cumulative classroom square footage of 28 square feet for each student in grades four through six in the district.

C. A school district shall have school facilities with cumulative classroom square footage of 26 square feet for each student in grades seven and eight in the district.

D. A school district shall have school facilities with cumulative classroom square footage of 25 square feet for each student in grades 9 through 12 in the district.

E. For purposes of measuring cumulative classroom square footage for programs for preschool children with disabilities, kindergarten programs and grades one through six, classroom spaces are those occupied throughout the school day by the same students, or usable for general classroom purposes.

F. For purposes of measuring cumulative classroom square footage for grades seven and eight, classroom spaces are 90 percent of the square footage of those rooms usable for general and specialty classroom purposes.

G. For purposes of measuring cumulative classroom square footage for grades 9 through 12, classroom spaces are 85 percent of the square footage of those rooms usable for general and specialty classroom purposes.

H. Classroom space is measured from interior wall to interior wall.

I. The amount of classroom space per student specified in this Article accounts for required teaching space.

J. The square footage of a general classroom is not counted as specialty classroom square footage.

K. The square footage of a specialty classroom is not counted as general classroom square footage.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-211. Classroom Fixtures and Equipment

A. Each general and specialty classroom shall contain a work surface and seat for each student in the classroom. The work sur-

face and seat shall be appropriate for the normal activity of the class conducted in the room. A work surface and seat are adequate if the items are:
1. Safe; and
2. Maintainable.

B. Each general and specialty classroom shall have an erasable surface and a surface suitable for projection purposes, appropriate for group classroom instruction and a display surface. A single surface may meet one or more of these purposes. An erasable surface and a surface suitable for projection purposes, appropriate for group classroom instruction must be at least three feet by five feet.

C. Each general and specialty classroom shall have storage for classroom materials or access to conveniently located storage.

D. Each general and specialty classroom shall have a work surface and seat for the teacher and for the aid assigned to the classroom and secure storage for student records, that is located in the classroom or is convenient to access from the classroom.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-212. Classroom Lighting

A. Each general, science, and art classroom shall have a light system capable of maintaining at least 50 footcandles of light.

B. The light level shall be measured at a work surface located in the approximate center of the classroom, between clean light fixtures under normal operating conditions.

C. A random sample of 10 percent of the general, science, and art classrooms in each building shall be measured to determine the classroom light level for the school facility.

D. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-213. Classroom Temperature

A. Each general, science, and art classroom shall have a HVAC system capable of maintaining a temperature between 68° and 82° F under normal conditions with an occupied classroom.

B. Except in areas where the elevation is above 5,000 feet, defective or non-operable air conditioners and evaporative coolers shall be replaced with air conditioning. Non-air conditioned schools with elevations less than 5,000 feet shall be air-conditioned.

C. The temperature shall be measured at a work surface in the approximate center of the classroom, under normal conditions.

D. A random sample of 10 percent of the general, science, and art classrooms in each building shall be measured to determine the classroom temperature level for the school facility.

E. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-214. Classroom Acoustics

A. Each general, science, and art classroom shall be maintainable at a sustained background sound level of less than 55 decibels.

B. The sound level shall be measured at a work surface in the approximate center of the classroom, under normal conditions.

C. A random sample of 10 percent of the general, science, and art classrooms in each building shall be measured to determine the classroom sound level for the school facility.

D. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-215. Classroom Air Quality

A. Each general, science, and art classroom shall have a HVAC system capable of maintaining a CO2 level of not more than 800 PPM above the ambient CO2 level.

B. The air quality shall be measured at a work surface in the approximate center of the classroom, under normal conditions.

C. A random sample of 10 percent of the general, science, and art classrooms in each building shall be measured to determine the classroom air quality level for the school facility.

D. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-216. Education Classroom Facilities for Disabled Students

A school facility shall have space or access to space capable of being used for the education programs of disabled students attending the school facility.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-217. Reserved

R7-6-218. Reserved

R7-6-219. Reserved

R7-6-220. Libraries and Media Centers/Research Area

A. A school facility shall have space for students to access research materials, literature, non-text reading materials, and reading books and technology, to permit students to achieve state academic standards as prescribed by the State Board of Education. This shall include space for reading, listening, and viewing materials.

B. For an elementary school facility that serves at least 150 students, this space shall be the greater of 1000 square feet or the square footage equal to 20 square feet per student for 10 percent of the student body.

C. For a middle or junior high or high school facility that serves at least 150 students, this space shall be the greater of 1200 square feet or the square footage equal to 20 square feet per student for 10 percent of the student body.

D. A school facility that serves at least 150 students shall have library fixtures and equipment in accordance with R7-6-221 as modified from time to time.

E. A school facility shall have library materials in accordance with R7-6-221 as modified from time to time.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-221. Equipment for Libraries and Media Centers/ Research Area

A. The standard equipment list for libraries and media centers/ research areas is as follows:
1. One linear foot of library book shelves per student;
2. For a school of 150 or more students, one work surface for every 20 students, minimum of 15, maximum of 75;
3. For a school of 150 or more students, one seat for every 20 students, minimum of 15, maximum of 75;
4. One TV/VCR;
5. One overhead projector;
6. Ten books per students;
7. One almanac (may be electronic or hard copy);
8. One encyclopedia set per 200 students (may be electronic or hard copy);
9. One atlas (may be electronic or hard copy); and
10. One unabridged dictionary (may be electronic or hard copy).

B. Each almanac, encyclopedia and atlas shall have a publication date of 2000 or later.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-222. Reserved

R7-6-223. Reserved

R7-6-224. Reserved

R7-6-225. Cafeterias

A school facility shall have a covered area or space, or combination, to permit students to eat within the school site, outside of general classrooms. This space may have more than one function and may fulfill more than one guideline requirement (auditorium and/or indoor physical education).

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-226. Food Service

A. A school facility shall have space and fixtures and equipment, in accordance with the standard equipment list in R7-6-227 as modified from time to time, for the preparation, receipt, storage, and service of food to students that is accessible to the serving area. The space, fixtures, and equipment shall be appropriate for the food service program of the school facility. Food service fixtures and equipment are subject to assessment under R7-6-265(A)(1) and (2).

B. Food service facilities and equipment shall comply with county health codes.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-227. Equipment List for Food Service.

A. A school facility shall have the following fixtures and equipment for the preparation, receipt, storage and service of food to students:
1. One three-compartment sink.
2. One double stack convection oven for a cooking kitchen or a warming oven.
3. One dishwasher if reusable dishes and silverware are used.
4. One hot food holding appliance.
5. One range with hood.
6. One refrigerator.
7. One freezer.
8. One milk refrigerator.

B. The items in subsection (A) of this Section may be substituted for a reasonable alternative.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-228. Reserved

R7-6-229. Reserved

R7-6-230. Auditoriums, Multipurpose Rooms, or Other Multiuse Space

A school facility shall have a space capable of being used for student assembly sufficient to accommodate one-third of the student body, which shall be the same size or larger than an average classroom at the facility. The space must be equal to at least seven square feet multiplied by one-third of the student body. This space may have more than one function and may fulfill more than one guideline requirement (cafeteria and/or indoor physical education).

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-231. Reserved

R7-6-232. Reserved

R7-6-233. Reserved

R7-6-234. Reserved

R7-6-235. Technology

A. Each classroom at a school facility shall have Internet access, at least through a network modem. Each school must have available either on a school basis or on a district-wide basis a firewall and filtering software. Each school facility shall have at least one network multimedia computer, available for student use, for every eight students, on a school wide network. Computer equipment is subject to assessment under R7-6-265(A)(1) and (2).

B. A multimedia computer is defined as a computer that has sound, CD-ROM, a keyboard, a monitor, and a pointing device.

C. Until June 30, 2005, each district shall have an application service provider, coupled with an adequate variety of instructional software.

D. In order to meet the requirements of this Section, should a school district have an application service provider in place, the school district may also meet the requirements of subsection (A) of this Section by purchasing thin client terminals or network appliances with full access to the Internet, equipped with a 13” screen or larger monitors.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-236. Reserved

R7-6-237. Reserved

R7-6-238. Reserved

R7-6-239. Reserved

R7-6-240. Transportation

A. Pupil transportation vehicles manufactured prior to 1978 shall be replaced if the eligible students transported exceeds the student transportation capacity of the district, excluding the vehicle eligible for replacement.

B. Diesel powered pupil transportation vehicles with more than 400,000 miles and gasoline powered pupil transportation vehicles with more than 200,000 miles shall be replaced if the eligible students transported exceeds the student transportation capacity of the district, excluding the vehicle eligible for replacement.

C. Diesel powered pupil transportation vehicles with more than 266,800 miles and gasoline powered pupil transportation vehicles with more than 133,400 miles shall be replaced if at least one-half of the miles accumulated on the vehicle were driven on unpaved roads and if the eligible students transported exceeds the student transportation capacity of the district, excluding the vehicle eligible for replacement.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-241. Reserved

R7-6-242. Reserved

R7-6-243. Reserved

R7-6-244. Reserved

R7-6-245. Science Facilities

A. A school facility with students in grades 5 through 12 shall have classroom space to deliver practical science instruction, or classroom space for an alternate science delivery method.

1. For grades five through eight no space is required beyond the academic classroom requirement. For grades 9 through 12, four square feet per student of practical and instructional science space is required. The space shall not be smaller than the average classroom at the facility. This space is included in the academic classroom requirement and may be used for other instruction.

B. A school facility with students in grades 5 through 12 that delivers practical science instruction shall have science fixtures and equipment, in accordance with R7-6-246 as modified from time to time. If an alternate science delivery method is used by a district, a school facility shall have science fixtures and equipment for students in grades 5 through 12 that are an alternate equivalent to the science fixtures and equipment identified in R7-6-246.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-246. Equipment List for Science Facilities

A. Science facilities for students in grades 9 through 12 shall have the following fixtures and equipment:

1. One demonstration table with non-corrosive surface per 250 students.
2. Six laboratory stations with a non-corrosive surface per 250 students.
3. One fume hood.
4. One chemical storage unit per 1,000 students.
5. One eye wash/shower per 250 students.
6. One dissecting microscope per 25 students, minimum of the lesser of 12 or one-half of the number of eligible students.
7. One refrigerator.

B. Science facilities for students in grades five through 12 shall have the following fixtures and equipment:

1. One sink per 250 students.
2. One compound microscope per 25 students, minimum of the lesser of 12 or one-half of the number of eligible students.
3. One balance per 250 students.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-247. Arts Facilities

A. A school facility with students in grades 7 through 12 shall have space to deliver art education programs including visual, music, and performing arts programs or have access to an alternate delivery method.

B. For grades 7 through 12, four square feet per student of art and/or vocational education space is required. The space shall not be smaller than the average classroom at the facility. This space is included in the academic classroom requirement and may be used for other instruction.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-248. Vocational Education Facilities

A. A school facility with students in grades 7 through 12 shall have space to deliver vocational education programs or have access to an alternate delivery method.

B. For grades 7 through 12, four square feet per student of art and/or vocational education space is required. The space shall not be smaller than the average classroom at the facility. This space is included in the academic classroom requirement and may be used for other instruction.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-249. Physical Education and Comprehensive Health Program Facilities

A. A school facility shall have area and space and fixtures, in accordance with R7-6-250 as modified from time to time, for physical education activity and space for a comprehensive health program established in compliance with the academic standards prescribed by the State Board of Education.

B. For schools designed for 20-50 students, the indoor space available for physical education must be one single space of at least 1,600 square feet. For schools designed for 50 to 125 students, the indoor space available for physical education must be one single space of at least 2,600 square feet. For schools designed for more than 125 students, the total indoor space available for physical education must be at least 5,100 square feet and one single space that is at least 2,600 square feet must be available. This space may have more than one function and may fulfill more than one guideline requirement (cafeteria and/or auditorium). The comprehensive health space is the indoor space available for physical education.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-250. Equipment List for Physical Education

A. A school facility shall have the following equipment and fixtures for physical education:
1. Exterior to the building, one basketball court size surface area and two goals per 300 students, four court maximum.
2. Exterior to the building, one baseball/softball backstop.

B. Concrete shall be used when installing basketball courts.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-251. Alternate Delivery Method

If an alternate delivery method is used by the district to deliver instruction in art, science, or vocational education, the alternate method must be approved by the school district governing board and be capable of meeting the requirements established in the academic standards prescribed by the State Board of Education for the specific subject area.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-252. Reserved

R7-6-253. Reserved

R7-6-254. Reserved

R7-6-255. Parent Work Space

A. If parents are invited to assist with school activities, a school facility shall include a work space capable of being used by parents.

B. One square foot per student, with a minimum of 150 square feet and a maximum of 800 square feet, is required. The maximum may be exceeded. The space may be divided into more than one room. This space may have more than one function.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-256. Two-way Internal Communication System

A school facility shall have a network and two-way internal communication system between a central location and each classroom, library, physical education space, and the cafeteria.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-257. Fire Alarm

A school facility shall have a fire alarm system as required by the State Fire Marshal.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-258. Administrative Space

A. A school facility shall have space for the use of the administration of the school. For the school administrator, 150 designated square feet is required. For general administrative purposes and additional 1.5 square feet per student is required, with a minimum of 150 square feet and a maximum of 2,500 square feet. The maximum may be exceeded.

B. A school facility shall have space to isolate a sick student from the other students. This space shall be a designated space that is accessible to a restroom, large enough to accommodate one cot per 200 students, with a maximum of four cots. The maximum may be exceeded.

C. A school facility shall have work space available to the faculty. This space is in addition to any work area available to a teacher, in or near a classroom. One square foot per student with a maximum of 150 square feet and a maximum of 800 square feet is required. The maximum may be exceeded. The space may be divided into more than one room. This space may have more than one function.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-259. Reserved

R7-6-260. Laws and Building Codes

A. To the extent required by law, school buildings shall be in compliance with federal, state and local building and fire codes and laws that are applicable to the particular building. Existing school buildings are not required to comply with current requirements for new buildings unless this compliance is specifically mandated by law or by the building or fire code of the jurisdiction where the building is located.

B. At a minimum, the 1997 Uniform Building Code (UBC) is required to be met for new school facility construction and, as required, for building renovations in existing schools.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-261. Energy Saving Measures

New school facility construction and, as required, building renovations in existing schools, shall include, where reasonable, energy conservation upgrades that will provide dollar savings in excess of the cost of the upgrade within eight years of the installation.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-262. Reserved

R7-6-263. Reserved

R7-6-264. Reserved

R7-6-265. Building Systems

A. Building systems in a school facility must be in working order and capable of being properly maintained. A building system shall be considered to be in "working order and capable of being maintained," if all of the following:
1. The system is capable of being operated as intended and maintained.
2. Newly manufactured or refurbished replacement parts are available.
3. The remaining life expectancy of the system, at the time of the initial statewide assessment, is at least three years.
4. The system is capable of supporting the gross square footage standard and minimum school facility guidelines established in this Article.
5. Components of the system present no imminent danger of personal injury.

B. Building systems include, as required by law, roof, plumbing, telephone, electrical, and heating and cooling systems as well as fire alarm, two-way internal communication, computer cabling, and existing security systems.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-266. Reserved

R7-6-267. Reserved

R7-6-268. Reserved

R7-6-269. Reserved

R7-6-270. Building Structural Soundness
A school facility must be structurally sound. A school facility shall be considered structurally sound if the building presents no imminent danger or major visible signs of decay or distress, and the remaining life expectancy of the building structure appears to be at least a minimum of three years.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-271. Exterior Envelope, Interior Surfaces and Interior Finishes
The exterior envelope, interior surfaces, and interior finishes at school facilities must be safe and capable of being maintained.

1. An exterior envelope is safe and capable of being maintained if:
   a. Walls and roof are weather tight under normal conditions with routine upkeep;
   b. Doors and windows are weather tight under normal conditions with routine upkeep; and
   c. The building structural systems support the loads imposed on them.
2. An interior surface is safe and capable of being maintained if it is:
   a. Structurally sound;
   b. Capable of supporting a finish; and
   c. Capable of continuing in its intended use with normal maintenance and repair for at least three years after the initial statewide assessment.
3. An interior finish is safe and capable of being maintained if it is:
   a. Free of exposed lead paint;
   b. Free of friable asbestos; and
   c. Capable of continuing in its intended use, with normal maintenance and repair, for at least three years after the initial statewide assessment.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-272. Reserved

R7-6-273. Reserved

R7-6-274. Reserved

R7-6-275. Minimum Gross Square Footage
Each school district shall have sufficient school facilities, which comply with minimum school facility guidelines established in this Article, to meet the per pupil minimum adequate gross square footage requirements for such district as determined by law, for such district based on number and grade distribution of the students served by the district.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-276. Assessment of Minimum Gross Square Footage

A. Computation of the gross square footage of a school facility may be by physical measure or by calculation based on architectural plan documents.

B. The gross square footage of a school facility equals all space within the facility excluding space used for district administrative purposes.

C. The gross square footage of a district shall equal the sum of the gross square footage of each school facility in the district.

D. The minimum gross square footage of a district equals the sum of the products of the students in each grade or program for preschool children with disabilities or kindergarten program multiplied by the minimum adequate gross square footage requirements per pupil, applicable to the district for such grade or program.

E. For the purpose of assessment of minimum gross square footage, the number of children in all grades and kindergarten shall be evenly distributed across all grades and kindergarten served by the district.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-277. Reserved

R7-6-278. Reserved

R7-6-279. Reserved

R7-6-280. Expired

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4). Section expired under A.R.S. § 41-1056(E) at 11 A.A.R. 3252, effective June 30, 2005 (05-3).

R7-6-281. Reserved

R7-6-282. Reserved

R7-6-283. Reserved

R7-6-284. Reserved

R7-6-285. Guidelines Exception
The Board may grant an exception from any of the guidelines requirements, upon agreement between the Board and the school district. The Board shall grant an exception if it determines that the intent of the guideline is capable of being met by the school district in an alternate manner. If the Board grants the exception, the school district shall be deemed to meet the guideline and is not eligible for state funding to meet the guideline.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 3. SQUARE FOOTAGE CALCULATIONS

R7-6-301. Square Footage Calculations

A. A school district may use Class A bonds to supplement any project funded by the School Facilities Board pursuant to A.R.S. § 15-2021 or A.R.S. § 15-2041. Pursuant to A.R.S. § 5-2002(H), when a school district adds square footage to the district through the construction of a new school using Class A bonds, the School Facilities Board shall not provide funding to supplement the new school construction.

B. When a school district adds square footage to the district through the construction of a new school using either Class B bonds, or unrestricted capital outlay monies, the School Facili-

ties Board shall not include the square footage of the new school in the gross square footage of the school district for purposes of calculating building renewal distributions pursuant to A.R.S. § 15-2031 and for determining needs for additional square footage pursuant to A.R.S. § 15-2011 and A.R.S. § 15-2041.

C. When a school district adds square footage to the district through the construction of a new school using Class A bonds, the School Facilities Board shall include the square footage of the new school in the gross square footage of the school district for purposes of calculating building renewal distributions pursuant to A.R.S. § 15-2031 and for determining needs for additional square footage pursuant to A.R.S. § 15-2011 and A.R.S. § 15-2041.

D. A school district that uses Class B bonds and/or unrestricted capital outlay monies to add or replace square footage at existing schools shall have the additional square footage or replacement square footage treated as follows:

1. A school district that adds square footage to an existing school with the use of Class B bonds or unrestricted capital outlay monies shall not have the additional square footage included in the determination of minimum adequate square footage pursuant to A.R.S. § 15-2011(C), but the School Facilities Board shall consider the additional square footage for purposes of determining adequacy of the functional components of the school as specified in the Minimum School Facilities Guidelines set forth in R7-6-201 through R7-6-285.
2. A school district that both removes and adds square footage with the use of Class B bonds or unrestricted capital outlay monies shall not have the net additional square footage included in the determination of minimum adequate square footage pursuant to A.R.S. § 15-2011(C), but the School Facilities Board shall consider the net additional square footage for purposes of determining adequacy of the functional components of the school as specified in the Minimum School Facilities Guidelines set forth in R7-6-201 through R7-6-285.
3. For purposes of calculating building renewal pursuant to A.R.S. § 15-2031, replacement square footage constructed with Class B bonds or unrestricted capital outlay monies shall be included, but net additional square footage shall be excluded.
4. If square footage is replaced at an existing school with the use of Class B bonds or unrestricted capital outlay monies, the student capacity of the facility after completion of the project will be determined in the same manner as it would have been determined prior to the addition. If Class B bonds or unrestricted capital outlay monies are used to construct a complete replacement school, the student capacity of the facility once the project is completed will be based on the provisions of A.R.S. § 15-2011(C).
5. For purposes of this Section, replacement square footage is defined as square footage constructed with Class B bonds or unrestricted capital outlay monies that replaces existing square footage.

E. If square footage is added to or replaced at an existing school with the use of Class A bonds, the student capacity of the facility after completion of the project will be determined in the same manner as it would have been determined prior to the addition.

F. The method of computing the funding and square footage for any expansion of a core facility previously funded by the School Facilities Board shall follow the same method that was used for computing the original core facility.

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-302. Modification of Square Footage for Geographic Factors

A. In those school districts where students are transported one hour or more via the most reasonable and direct route or where students reside 45 miles or more from the closest school via the most reasonable and direct route, and where 100 or more students are affected by these conditions within the same region, the School Facilities Board shall provide additional school space to the district to accommodate the educational needs of the affected students. However, the educational space provided may be modified as the Board sees fit in making a conscientious effort to meet the Minimum Adequacy Guidelines without requiring extraordinary expenditures of public funds.

B. If an elementary school district that is not in a high school district unifies after June 30, 2005, the resulting unified school district may qualify for high school space under A.R.S. § 15-2041 if it meets the following criteria:

1. The elementary school district unifies after June 30, 2005; and
2. The resulting unified school district is projected to have more than 350 resident high school students being served in school districts other than the student's resident school district within three years following the current fiscal year; and
3. One of the following is true:
   a. At least 350 of the high school students would travel 20 miles or more to the receiving school facility; or
   b. The receiving school district is projected to need additional high school space within seven years. For purposes of this analysis, the projected average daily membership of the receiving district includes the high school students of both the receiving and sending districts.

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4). Amended by final rulemaking at 12 A.A.R. 3988, effective December 4, 2006 (Supp. 06-4).

R7-6-303. Repealed

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-304. Repealed

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-305. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-306. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-307. Reserved
through
R7-6-320. Reserved

R7-6-321. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 4. EXPIRED

R7-6-401. Expired

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4). Section expired under A.R.S. § 41-1056(E) at 11 A.A.R. 3252, effective June 30, 2005 (05-3).

ARTICLE 5. NEW SCHOOL AND LAND FUNDING

R7-6-501. Capital Plans

If a school district's capital plan, developed pursuant to A.R.S. § 15-2041, indicates a need for a new school or an addition to an existing school within the next four years or a need for land within the next ten years, the school district shall complete the capital plan packet issued by the School Facilities Board and return the packet to the Board by the announced deadline.

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-502. Funding for New Schools or Additional Square Footage

A. The data submitted by each school district requesting additional square footage under the capital plan shall be reviewed by staff to determine student capacity. Additionally, staff shall review and verify district student population projections and the existing square footage in the district. The staff shall prepare a New Construction Analysis for the district.

B. If the proposed new school facilities are located in territory in the vicinity of a military airport as defined in A.R.S. § 28-8461, the Board shall provide notice to the military airport of the proposed new school facility construction and seek the military airports comments and analysis concerning compatibility of the proposed school facilities with the high noise or accident potential generated by military airport operations that may have an adverse effect on public health and safety. The Board shall consider and analyze the comments and analysis provided by the military airport prior to making a final determination to fund the new square footage.

C. The Board shall make a decision regarding the number of square feet and students to be funded for the district, the appropriate cost per square foot and the total budget. At the time the Board is making its decision, the New Construction Analysis shall be available to the Board members and the school district. The school district may address the Board at this time.

D. A school district that is approved for additional square footage shall have 60 days from the date of notification to officially accept, in writing, funding for the square footage approved by the Board or the approval shall expire. After a school district has accepted a project in writing and has signed the Terms and Conditions for New School Funding, the Board shall provide five percent of the monies approved for architectural and engineering fees for projects of $500,000 or more. The individual school district shall be responsible for establishing the actual A and E amount.

E. A school district that receives approval for additional square footage from the Board shall proceed with the design development plan and specifications for the project. Two copies of the proposed educational goals or specifications and schematic design, with budget estimates are required to be submitted to the Board's staff. The items required to be included in the estimated budget are all elements of new construction, excluding land acquisition. These elements include, but are not limited to:
1. Architectural and engineering fees;
2. Survey, testing, permits, advertising and printing;
3. Construction costs;
4. Furniture, fixtures and equipment;
5. Any necessary project management; and
6. A five percent contingency amount.

After Board staff review, the school district shall proceed with a preliminary bid package.

F. If the school district includes reasonable upgrades to the new construction project for energy conservation purposes, the Board shall provide funding upgrades above the formula based award to cover the full amount of the upgrade. Upgrades will only be funded if the upgrade receives pre-approval by the Board staff and the school district architect or engineer certifies that the upgrade will provide dollar savings in excess of the cost of the upgrade within an eight-year period.

G. Upon review of the submitted schematic design, budget estimates and preliminary bid package, the Board's staff shall make a recommendation to the Board regarding the appropriateness of the school district to proceed with the additional square footage and the efficiency and effectiveness of the plan. The staff recommendation shall be based on whether the project is within the original scope and Board approved budget (including square footage and number of students), the project meets the building adequacy standards, initial comments from the local building authority and whether revised student population projections continue to justify the additional square footage. If the Board approves the project, the school district shall be authorized to proceed with the final bid package. Prior to authorization to contract the school district shall document that it has obtained local (city, county or equivalent) building

department approval. For projects outside of the original scope and /or Board approved budget or that do not meet the minimum adequacy guidelines, the Board may instruct the school district to resubmit the project, or the Board may make an alternative decision. Local funds may be used by the school district in conjunction with the Board approved funding.

H. Upon receipt of bids by the school district, the Executive Director shall authorize the district to proceed with the contract if the school district has documented that it has obtained local (city, county or equivalent) building department approval, and the bid is within the original scope and Board approved budget, and meets the building adequacy standards. The Executive Director may make an alternative recommendation to the full Board.

I. The Board-approved funding for additional square footage shall be available to the school district for one year from the date of notification. The bid process shall be completed within the one-year period. The Board shall consider requests for an extension beyond the one year and may grant an extension for good reason.

J. The Board may modify or waive the requirements of this Section for good cause.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-503. Funding for Land

A. The School Facilities Board follows a three-step approval process for the funding of land that is classified as Step One - Justification of Need for Land; Step Two - Request to Purchase a Specific Site; and Step Three - Due Diligence. The executive director may deviate from the three-step approval process to meet other circumstances as they arise, such as purchasing state-owned land and condemnation and bring such recommendations to the full Board.

B. Step One is the initial request for land for new construction. A school district that currently owns land shall demonstrate that the district-owned property is not suitable for the needed new school in order for the school district to receive funding for the acquisition of land.

C. Step Two includes the following:

1. The school district shall provide a map of the district showing current schools and the projected student population, grade levels served and attendance boundaries in various locations in the district, which supports the location of the new school at the requested site. The school district shall also provide a listing of vacant parcels currently owned by the school district (including the size of each parcel and its location), describe the site selection process, explain why the site requested was chosen over alternative sites, and summarize any joint use provisions or other intergovernmental agreements related to the site. The school district shall also provide a legal description of the desired site, the size of the site and an estimate of the cost of the site. The school district may provide information on more than one site.
2. The Board shall make a decision regarding the site size for each site. The range of acreage table approved by the Board is provided to allow school districts some leeway in site selection. The school district shall provide special justification if the site size is not within the range shown on the range of acreage table. Allowances shall not be granted for additional acreage for limited use activities that are only remotely related to the teaching and learning enterprise. Limited use activities would include, but not be limited to, athletic fields that are only used for interscholastic competition rather than daily activities, and non-school related community functions. The site size will be based on the eventual size of the school, if expansion is planned. The school district may request a larger or smaller site if conditions require. The school district may purchase additional acres with local funds. School districts should give careful consideration to joint-use sites such as those which adjoin community parks and play grounds. The ranges indicated are not intended to dictate a minimum acreage if a joint-use agreement provides the school with access to adjoining public space.
3. If a school district needs monies to verify, gather and submit the information required in Step Three, the school district shall submit a cost estimate to the Board, and the Board shall approve or disapprove the request for monies. Rather than allocating monies to a school district to verify, gather and submit information required in Step Three, the Board may approve the staff of the School Facilities Board to contract directly for such services, in which case the contractors will be paid directly by the Board.

D. If the school district receives approval to proceed to Step Three, the following information about the site shall be acquired:

1. An appraisal of the land that documents that the proposed cost is at or below the fair market value.
2. Legal description of the land.
3. Level one environmental assessment, plus the following factors (if not included):
   a. Hazardous materials
   b. Archaeology
   c. Endangered flora and fauna
   d. Noise
   e. Soil Conditions
   f. Adjacent land owners and/or uses
4. Boundary and Topographical Survey
5. Drainage statement
6. Site development cost
7. Photographic survey (if required by planning and zoning departments)
8. Feasibility site diagram-conceptual study by a design professional illustrating proposed development of the site (based on the eventual size of the school, if there are plans for expansion), indicating:
   a. Property lines and measurements
   b. Setbacks, right-of-ways, and easements
   c. Vehicular access and parking
   d. Pedestrian and bicycle access
   e. Building zone
   f. Drainage concept
   g. Utility routes or systems
   h. Activity fields and courts
   i. Limit-lines and calculation of usable area
   j. Existing features to be demolished or preserved
   k. Future expansion capability

E. Final distribution of monies to purchase the site may be made by the Board if Step Three reveals no serious problem with the site. If the actual cost of the site does not exceed the Board approved amount the Executive Director may make the final determination of site funding without further action by the Board. If monies were distributed to the school district to verify, gather and submit the information required based on a cost estimate, an adjustment for the actual cost shall be made at the time of the final distribution. The school district shall provide documentation to the Board of the actual expenditures from the monies provided and the actual closing costs within 60 days of the final distribution. Expenditures exceeding the

amount provided pursuant to subsection (C)(3) of this Section require approval by the Board. If the site is rejected as a result of information gathered in Step Three, the school district may repeat Steps Two and Three with a new site.

F. The Board may modify or waive the requirements of this Section for good cause.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-504. Donations of Real Property

A. A school district seeking to acquire real property by donation pursuant to A.R.S. § 15-2041 shall complete the school site and school facility donation information requirements form and submit the form to the School Facilities Board. The information requested on the form for land shall include, among other items, a district map identifying existing school sites and facilities, student population and the location of the donation. The information requested on the form for a facility shall include, among other items, the size of the facility, grade levels served and location. If all of the information required is not available and if a school district needs monies to verify, gather and submit the information required, it shall submit a cost estimate at the same time it submits the information that is available.

B. If all information is available, the School Facilities Board staff shall analyze the request to accept the donation and make a recommendation to the Board. If all information is not available, the School Facilities Board staff shall analyze the request on the basis of whether the school district should be awarded the funds necessary to complete the information gathering process, and shall make a recommendation to the Board. At the time the Board is making its decision, the staff analysis and recommendation shall be available to the School Facilities Board members and the applicant school district. The applicant school district may address the Board.

C. If the Board approval is to award funds necessary to complete the information gathering process, the district shall be notified by the Board Staff and upon acceptance may proceed to gather the additional information required. Once the additional information is submitted to the Board, the Staff shall analyze the request to accept the donation and make a recommendation to the Board as stated in subsection (B).

D. If the Board approves the district request to accept the donation, the Board staff shall notify the district. The distribution of 20 percent of the value of the accepted donation pursuant to A.R.S. § 15-2041 shall be awarded to the school district upon notification to the Board that the donation has been accepted by the district. The district shall submit documentation of its governing board action and documentation that the property title has been transferred to the district. Upon receipt of this documentation Board staff shall be authorized to distribute the approved 20 percent amount.

E. If monies were distributed to the district to verify, gather and submit the information required based on an estimated cost, an adjustment for the actual cost shall be made at the time of the final distribution. The district shall provide documentation to the Board of the actual expenditures from the monies provided. Expenditures exceeding any amounts provided pursuant to R7-6-503(C)(3) shall require approval by the Board.

F. In determining whether the real property proposed for donation is at an appropriate school site, the School Facilities Board Staff analysis shall be based on the following:

1. Location of the proposed donation of real property.
2. District needs for additional student capacity.
3. District needs for additional land (for site donations only).
4. Usable acres proposed for donation, taking into consideration School Facilities Board adopted usable acreage requirements.
5. The ability of a proposed site donation to accommodate a school facility that meets the minimum adequacy guidelines (for site donations only), or the adequacy of a proposed school facility donation.
6. Estimated site development costs.
7. Age and condition of the real property (for facility donation only).
8. Portion of real property that can be used for academic purposes.

G. If the School Facilities Board Staff recommendation is to authorize the district to accept the donation, the Staff shall prepare a recommended 20 percent distribution amount. The 20 percent distribution recommendation will be based on the fair market value of the real property proposed for donation that is usable for academic purposes.

H. The Board may waive or modify the requirements of this Section for good cause.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-505. Constructing Bond-Funded Schools on Land Funded by the School Facilities Board

A. A school district that acquires land by sale or lease pursuant to A.R.S. § 15-2041 may construct a school facility on that land using Class A bonds. The square footage of the new facility shall be included in the gross square footage of the school district for purposes of determining needs for additional square footage and building renewal distributions.

B. A school district that acquires land by sale or lease pursuant to A.R.S. § 15-2041 may construct a school facility on that land using Class B bonds provided that the school district agrees in writing that when the school district qualifies for a new school funded by the School Facilities Board that the School Facilities Board will not provide funding for the lease or purchase of an additional site for that school. The square footage of the new facility constructed with Class B bond monies shall not be included in the gross square footage of the school district for purposes of determining needs for additional square footage and building renewal distributions.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-506. Providing Technical Assistance in the Form of Project Management

A. A school district that does not have the experience or resources to successfully oversee a new school construction project may request technical support from the Board pursuant to A.R.S. § 15-2002(13) in the form of project management services.

B. The Executive Director may approve the project management request. Should the Executive Director deny the request, the school district has the right to appeal the decision to the Board.

C. The cost of the project management shall be made a part of the overall cost of the new school, and those funds shall be derived from the total allocation for the project provided by the School Facilities Board. Should the allocation of funds that the district receives pursuant to A.R.S. § 15-2041 satisfy the base cost of the new school plus the cost of the project management, then the Board shall not provide any additional funds for project management services.

D. If the school district's request for project management services is approved, the school district shall agree to reimburse the Board from its allocated funds for the cost of any independent contractors that the Board uses to provide the project management services.

E. The Board may provide the school district with monies to pay for the project management services in addition to the monies the school district receives pursuant to A.R.S. § 15-2041 provided:

1. The school district demonstrates that the monies it receives pursuant to A.R.S. § 15-2041 are not sufficient to build a school that meets the building adequacy guidelines and pay the fees for the project management; and
2. The school district demonstrates in writing to the Board's satisfaction that the school district does not have the experience or resources necessary to successfully complete the new school construction project.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-507. Reserved

R7-6-508. Reserved

R7-6-509. Reserved

R7-6-510. Reserved

R7-6-511. Repealed

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 6. CONTINGENCY FUNDS

R7-6-601. Allocation and Use of Contingency Monies

A. A sum equal to a percentage of the construction bid shall be set aside as a contingency fund to cover the cost of unknown conditions that could arise during construction. The School Facilities Board shall set aside an amount equal to five percent of the base cost for new construction and ten percent of the base cost for renovation of a structure or system replacement to cover these potential costs. Contingency funds are not part of the construction budget and are to be used only if needed. For deficiency corrections projects, any contingency funds which are not used shall be returned to the deficiency corrections fund. For projects funded by the new school facilities fund, any contingency funds which are not used may be used by the school district in accordance with A.R.S. § 15-2041.

B. The mechanism that is used to spend contingency funds during construction is a "change order." There are three types of situations that generally require a change order:

1. An unknown condition that was not determined until after construction was started and that requires a change, deletion or addition to the construction contract.
2. The school district has determined to change the scope of work and add to or delete from the contract.
3. A change is required to correct a discrepancy between what the contractor bid and what the architect and owner intended. This type of change order could be determined an "error or omission" on the part of the architect. If so, the owner should pursue the architect's error and omissions insurance to recover the cots of the required change.

C. Change orders can be additive or subtractive to the construction contract and both should be used. All changes in the scope of the contract and the contract documents should be considered potential change orders. Change order should not be used to correct conditions known prior to or discovered during the bid process. These should be addendum items and made part of the bid.

D. The following conditions apply to the use of all contingency monies allocated to a specific project approved by the School Facilities Board. If the district wishes to issue change orders that do not comply with these rules, the associated costs shall be accounted for separately and not considered part of the approved project. In other words, they would need to be paid out of separate monies and would not be considered part of the approved project, even though they might be included in the same basic contract. These costs would be paid for using local funds.

1. The school district may use contingency monies only to cover change orders that are to correct unknown conditions.
2. Contingency funds may not be used to cover change orders for the other two types of situations discussed in subsection (B) above: the district has determined to change the scope of work during construction by adding components, or a change is required to correct a discrepancy created by the architect that could be considered an error or omission by the architect.
3. For deficiency correction projects performed pursuant to A.R.S. § 15-2021 only, the Executive Director shall have the discretion to authorize the use of contingency funds for expansion of scope, to accommodate low budget estimates, and for all other project related costs.
4. Contingency monies shall not be used to pay for "bid add alternates." These items are not part of the final approved project.

E. A school district whose deficiency correction projects are combined with the deficiency correction projects of one or more additional school districts pursuant to R7-6-401 shall have the contingency amount included as a percentage of the overall set of projects that have been grouped together for such purposes. The Executive Director shall have the discretion to use, transfer, and/or combine the contingency amounts for any projects within such a group to any other project within the group of projects. The Executive Director's adjustment authority pursuant to R7-6-401 shall be considered as a percentage or sum of the overall group of projects.

F. The Board may modify or waive the requirements of this Section for good cause.

Historical Note

Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 7. MINIMUM SCHOOL FACILITY GUIDELINES FOR THE ARIZONA STATE SCHOOLS FOR THE DEAF AND BLIND

R7-6-701. Application

The provisions of this Article are applicable only to the Arizona State Schools for the Deaf and Blind ("ASDB") as created by A.R.S. Title 15, Chapter 11. Board funding for deficiency correction projects pursuant to this Article is subject to legislative authorization for such funding.

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed; new Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-702. Reserved

R7-6-703. Reserved

R7-6-704. Reserved

R7-6-705. School Site

A. A school site shall have safe access, parking, drainage, security, and area to accommodate a school facility that complies with the minimum gross square footage requirements established in A.R.S. § 5-2011, for the number of students at the school facility and that comply with these guidelines.

B. "Safe access" means a student drop off area or pedestrian pathway that allows students to enter the school facility without crossing vehicular traffic or by using a designated crosswalk. Any student drop off area that is used by a bus must be configured to accommodate bus width and turning requirements.

C. "Parking means a maintainable all weather surfaced area that is large enough to accommodate one parking space per staff FTE and 10 visitor parking spaces per 100 students. If this definition is not met, the sufficiency of the parking at the site is subject to review by the Board using the following criteria:
1. Availability of street parking around the school;
2. Availability of any nearby parking lots;
3. Availability of public transit;
4. Number of staff that drive to work on a daily basis; and
5. The average number of visitors on a daily basis.

D. "Drainage" means that a school site is configured such that runoff does not undermine the structural integrity of the school buildings located on the site or create flooding, ponding, or erosion resulting in a threat to health, safety, or welfare.

E. "Security" means perimeter fencing surrounding the campus with lockable access gates with at least one automatic gate including card access as well as sight/audio, two-way communication with a central security office. The campus shall also have an accessible security office of at least 300 square feet per campus for visitor registration and multiple campus surveillance cameras strategically located around campus feeding video to the security office via monitors. The campus shall also have a fenced or walled play/physical education area for students in programs for preschool children with disabilities and kindergarten and students in grades 1 through 6. The requirement for a fenced or walled play/physical education area is met if the entire school is fenced or walled; otherwise, the sufficiency of this requirement is subject to review by the Board using the following criteria:
1. Amount of vehicular traffic near the school site;
2. Existence of hazardous or natural barriers on or near the school site;
3. The amount of animal nuisance near the school site; and
4. Visibility of the play/physical education area.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-706. Reserved

R7-6-707. Reserved

R7-6-708. Reserved

R7-6-709. Reserved

R7-6-710. Academic Classroom Space

A. The ASDB shall have school facilities with cumulative classroom square footage of 150 square feet for each of its students in programs for preschool children with disabilities and kindergarten programs.

B. The ASDB shall have school facilities with cumulative classroom square footage of 100 square feet for each of its students in grades kindergarten through six.

C. The ASDB shall have school facilities with cumulative classroom square footage of 100 square feet for each of its students in grades seven and eight.

D. The ASDB shall have school facilities with cumulative classroom square footage of 100 square feet for each of its students in grades 9 through 12.

E. For purposes of measuring cumulative classroom square footage for programs for preschool children with disabilities, kindergarten programs and grades one through six, classroom spaces are those occupied throughout the school day by the same students, or usable for general classroom purposes.

F. For purposes of measuring cumulative classroom square footage for grades seven and eight, classroom spaces are 90 percent of the square footage of those rooms usable for general and specialty classroom purposes.

G. For purposes of measuring cumulative classroom square footage for grades 9 through 12, classroom spaces are 85 percent of the square footage of those rooms usable for general and specialty classroom purposes.

H. Classroom space is measured from interior wall to interior wall.

I. The amount of classroom space per student specified in this Article accounts for required teaching space.

J. The square footage of a general classroom is not counted as specialty classroom square footage.

K. The square footage of a specialty classroom is not counted as general classroom square footage.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-711. Classroom Fixtures and Equipment

A. Each general and specialty classroom shall contain two work surfaces per student and seating for each student in the classroom that accommodates the special needs of deaf, blind and multi-handicapped students. The work surface and seat shall be appropriate for the normal activity of the class conducted in the room. A work surface and seat are adequate if the items are:
1. Safe; and
2. Maintainable.

B. Each general and specialty classroom shall have an erasable surface and a surface suitable for projection purposes, appropriate for group classroom instruction and a display surface. A single surface may meet one or more of these purposes. An erasable surface and a surface suitable for projection purposes, appropriate for group classroom instruction must be at least three feet by five feet.

C. Each general and specialty classroom shall have storage for classroom materials or access to conveniently located storage.

D. Each general and specialty classroom shall have a work surface and seat for the teacher and for the aid assigned to the

classroom and secure storage for student records, that is located in the classroom or is convenient to access from the classroom.

E. Each classroom shall have the following equipment to facilitate instruction to deaf/hard of hearing students:
1. TTY
2. Accessible computer with Internet access and printer
3. Television with built-in captioned and videocassette recorder.
4. Loop systems for auditory access.
5. Sound field amplification system.
6. Overhead projector.

F. Each classroom shall have the following equipment to facilitate instruction to blind/visually impaired students:
1. One CCTV.
2. One listening station.
3. Two Braille n' Speaks.
4. Two Braille writers.
5. Slantboards.
6. Fully accessible computer station with Braille printer.
7. Tables to accommodate Braille writers and Braille books simultaneously.
8. Shelving for Braille materials, low vision aids/equipment.
9. Auditory electronic dictionaries and calculators.
10. Cane racks.
11. Television monitor with a video cassette recorder.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-712. Classroom Lighting

A. Each general, science, and art classroom shall have non-glare, natural light and a light system capable of maintaining at least 50 footcandles of ambient, indirect light and 70 footcandles of direct task lighting, which may include lamps.

B. The light level shall be measured at a work surface located in the approximate center of the classroom, between clean light fixtures under normal operating conditions.

C. A random sample of 10 percent of the general, science, and art classrooms in each building shall be measured to determine the classroom light level for the school facility.

D. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-713. Classroom Temperature

A. Each general, science, and art classroom, and all student resident space shall have a HVAC system capable of maintaining a temperature between 68° and 82° F under normal conditions with an occupied classroom.

B. Except in areas where the elevation is above 5,000 feet, defective or non-operable A/C conditioning and evaporative coolers shall be replaced with A/C. Non-air conditioned schools with elevations less than 5,000 feet shall be air-conditioned.

C. In the classrooms, the temperature shall be measured at a work surface in the approximate center of the classroom, under normal conditions.

D. A random sample of 10 percent of the student residence space, and the general, science, and art classrooms in each building shall be measured to determine the classroom temperature level for the school facility.

E. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-714. Classroom Acoustics

A. The library/media center, the multipurpose room, and each general, science, and art classroom shall be maintainable at a sustained background sound level of less than 35 decibels.

B. The sound level shall be measured at a work surface in the approximate center of the room, under normal conditions.

C. A random sample of 10 percent of all rooms in each building subject to this requirement shall be measured to determine the room sound level for the school facility.

D. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-715. Classroom Air Quality

A. Each general, science, and art classroom shall have a HVAC system capable of maintaining a CO2 level of not more than 800 PPM above the ambient CO2 level.

B. The air quality shall be measured at a work surface in the approximate center of the classroom, under normal conditions.

C. A random sample of 10 percent of the general, science, and art classrooms in each building shall be measured to determine the classroom air quality level for the school facility.

D. For purposes of this Section, all portable or modular buildings located at a school facility that were manufactured in the same year and installed at the school facility at the same time are considered a single building.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-716. Education Classroom Facilities for Disabled Students

A school facility shall have space or access to space capable of being used for the education programs of disabled students attending the school facility.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-717. Reserved

R7-6-718. Reserved

R7-6-719. Reserved

R7-6-720. Libraries and Media Centers/Research Area

A. A school facility shall have space for students to access research materials, literature, non-text reading materials, and reading books and technology, to permit students to achieve state academic standards as prescribed by the State Board of Education. This shall include space for reading, listening, and viewing materials.

B. For an elementary school facility that serves at least 150 students, this space shall be the greater of 1000 square feet or the

square footage equal to 325 square feet per student for 10 percent of the student body.

C. For a middle or junior high or high school facility that serves at least 150 students, this space shall be the greater of 1200 square feet or the square footage equal to 275 square feet per student for 10 percent of the student body.

D. A school facility that serves at least 150 students shall have library fixtures and equipment in accordance with R7-6-721 as modified from time to time.

E. A school facility shall have library materials in accordance with R7-6-721 as modified from time to time.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-721. Equipment for Libraries and Media Centers/ Research Area

A. The standard equipment list for libraries and media centers/ research areas is as follows:
1. Twelve linear feet of library book shelves per blind student and two linear feet of library book shelves per deaf student;
2. One work surface for every 40 students;
3. One seat for every eight students;
4. Two TV's/VCR's;
5. One overhead projector;
6. One accessible computer station with Internet access for every 25 students;
7. One Braille printer;
8. Ten books per students;
9. One almanac (may be electronic or hard copy);
10 One encyclopedia set per 200 students (may be electronic or hard copy);
11. One atlas (may be electronic or hard copy);
12. One unabridged dictionary (may be electronic or hard copy); and
13. At least one set of each of the books listed in subsections (9) through (12) of this Section shall be accessible to blind students.

B. Each almanac, encyclopedia and atlas shall have a publication date of 2000 or later.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-722. Reserved

R7-6-723. Reserved

R7-6-724. Reserved

R7-6-725. Cafeterias

A school facility shall have a covered area or space, or combination, to permit students to eat within the school site, outside of general classrooms. This space may have more than one function and may fulfill more than one guideline requirement.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-726. Food Service

A. A school facility shall have space and fixtures and equipment, in accordance with the standard equipment list in R7-6-727 as modified from time to time, for the preparation, receipt, storage, and service of food to students that is accessible to the serving area. The space, fixtures, and equipment shall be appropriate for the food service program of the school facility. Food service fixtures and equipment are subject to assessment under R7-6-765(A)(1) and (2).

B. Food service facilities and equipment shall comply with county health codes.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-727. Equipment List for Food Service.

A. A school facility shall have the following fixtures and equipment for the preparation, receipt, storage and service of food to students:
1. One three-compartment sink.
2. One double stack convection oven for a cooking kitchen or a warming oven.
3. One dishwasher if reusable dishes and silverware are used.
4. One hot food holding appliance.
5. One range with hood.
6. One refrigerator.
7. One freezer.
8. One milk refrigerator.

B. The items in subsection (A) of this Section may be substituted for a reasonable alternative.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-728. Reserved

R7-6-729. Reserved

R7-6-730. Auditoriums, Multipurpose Rooms, or Other Multiuse Space

A school facility shall have a space capable of being used for student assembly sufficient to accommodate one-half of the student body plus parents and staff, which shall be the same size or larger than an average classroom at the facility. The space must be equal to at least 50 square feet multiplied by one-third of the student body. This space may have more than one function and may fulfill more than one guideline requirement.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-731. Reserved

R7-6-732. Reserved

R7-6-733. Reserved

R7-6-734. Reserved

R7-6-735. Technology

A. Each classroom at a school facility shall have Internet access, at least through a network modem. Each school must have available either on a school basis or on a district-wide basis a firewall and filtering software. Each school facility shall have at least one network multimedia computer, available for student use, for every eight students, on a school wide network. Computer equipment is subject to assessment under R7-6-765(A)(1) and (2).

B. A multimedia computer is defined as a computer that has sound, CD-ROM, a keyboard, a monitor, and a pointing device.

C. Until June 30, 2005, each ASDB campus shall have an application service provider, coupled with an adequate variety of instructional software.

D. When five or more students are provided instruction remotely, at least one classroom in each school facility shall be equipped for distance learning activities, including video conferencing capable of supporting 30 frames per second.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-736. Reserved

R7-6-737. Reserved

R7-6-738. Reserved

R7-6-739. Reserved

R7-6-740. Transportation

A. Pupil transportation vehicles manufactured prior to 1978 shall be replaced if the eligible students transported exceeds the student transportation capacity of the district, excluding the vehicle eligible for replacement.

B. Diesel powered pupil transportation vehicles with more than 250,000 miles or more than 10 years of service, gasoline powered pupil transportation vehicles with more than 150,000 miles or more than 10 years of service, and coach buses with more than 500,000 miles or more than 15 years of service, shall be replaced if the eligible students transported exceeds the student transportation capacity of the district, excluding the vehicle eligible for replacement.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-741. Reserved

R7-6-742. Reserved

R7-6-743. Reserved

R7-6-744. Reserved

R7-6-745. Science Facilities

A. A school facility with students in grades 5 through 12 shall have classroom space to deliver practical science instruction, or classroom space for an alternate science delivery method.
1. For grades five through eight no space is required beyond the academic classroom requirement. For grades 9 through 12, 10 square feet per student of practical and instructional science space is required. The space shall not be smaller than the average classroom at the facility. This space is separate and distinct from the academic classroom requirement and may not be used for other instruction.

B. A school facility with students in grades 5 through 12 that delivers practical science instruction shall have science fixtures and equipment, in accordance with R7-6-746 as modified from time to time. If an alternate science delivery method is used by the ASDB, a school facility shall have science fixtures and equipment for students in grades 5 through 12 that are an alternate equivalent to the science fixtures and equipment identified in R7-6-746.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-746. Equipment List for Science Facilities

A. Science facilities for students in grades 9 through 12 shall have the following fixtures and equipment:
1. One demonstration table with non-corrosive surface per 250 students.
2. Six laboratory stations with a non-corrosive surface per 250 students.
3. One fume hood.
4. One chemical storage unit per 1,000 students.
5. One eye wash/shower per 250 students.
6. One dissecting microscope per 25 students, minimum of the lesser of 12 or one-half of the number of eligible students.
7. One refrigerator.

B. Science facilities for students in grades 5 through 12 shall have the following fixtures and equipment:
1. One sink per 250 students.
2. One compound microscope per 25 students, minimum of the lesser of 12 or one-half of the number of eligible students.
3. One balance per 250 students.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-747. Arts Facilities

A. A school facility with students in grades 7 through 12 shall have space to deliver art education programs including visual, music, and performing arts programs or have access to an alternate delivery method.

B. For grades 7 through 12, ten square feet per student of art and/or vocational education space is required. The space shall not be smaller than the average classroom at the facility. This space shall not be included in the academic classroom requirement and may not be used for other instruction.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-748. Vocational Education Facilities

A. A school facility with students in grades 7 through 12 shall have space to deliver vocational education programs or have access to an alternate delivery method.

B. For grades 7 through 12, forty square feet per student of art and/or vocational education space is required. The space shall not be smaller than the average classroom at the facility. This space shall not be included in the academic classroom requirement and may not be used for other instruction.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-749. Physical Education and Comprehensive Health Program Facilities

A. A school facility shall have area and space and fixtures, in accordance with R7-6-750 as modified from time to time, for physical education activity and space for a comprehensive health program established in compliance with the academic standards prescribed by the State Board of Education.

B. One hundred twenty-five square feet per student of comprehensive health space is required. The comprehensive health space is the indoor space available for physical education and this space shall not be included in the academic classroom requirement and this space shall not have more than one function or satisfy more than one guideline requirement.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-750. Equipment List for Physical Education

A. A school facility shall have the following equipment and fixtures for physical education:
1. Exterior to the building, one basketball court size surface area and two goals per 300 students, four court maximum.
2. Exterior to the building, one baseball/softball backstop.

B. Concrete shall be used when installing basketball courts.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-751. Alternate Delivery Method

If an alternate delivery method is used by the ASDB to deliver instruction in art, science, or vocational education, the alternate method must be approved by the ASDB governing board and be capable of meeting the requirements established in the academic standards prescribed by the State Board of Education for the specific subject area.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-752. Reserved

R7-6-753. Reserved

R7-6-754. Reserved

R7-6-755. Parent Work Space

A. If parents are invited to assist with school activities, a school facility shall include a work space capable of being used by parents.

B. One square foot per student, with a minimum of 150 square feet and a maximum of 800 square feet, is required. The maximum may be exceeded. The space may be divided into more than one room. This space may have more than one function.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-756. Two-way Internal Communication System

A school facility shall have a network and two-way internal communication system between a central location and each classroom, library, physical education space, and the cafeteria. The communication system shall have both audio and video capabilities.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-757. Fire Alarm

A school facility shall have a fire alarm system as required by the State Fire Marshal. The fire alarm system shall meet current ADAAG requirements.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-758. Administrative Space

A. A school facility shall have space for the use of the administration of the school. For the school administrator, 150 designated square feet is required. For general administrative purposes and additional 7.5 square feet per student is required, with a minimum of 150 square feet and a maximum of 2,500 square feet. The maximum may be exceeded.

B. A school facility shall have space to isolate a sick student from the other students. This space shall be a designated space that is accessible to a restroom, large enough to accommodate one cot per 50 students, with a maximum of eight cots. The maximum may be exceeded.

C. A school facility shall have work space available to the faculty. This space is in addition to any work area available to a teacher, in or near a classroom. One square foot per student with a maximum of 150 square feet and a maximum of 800 square feet is required. The maximum may be exceeded. The space may be divided into more than one room. This space may have more than one function.

D. A 9,500 square foot facility used for the administration of the Arizona School for the Deaf and Blind shall also be available.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-759. Reserved

R7-6-760. Laws and Building Codes

A. To the extent required by law, school buildings shall be in compliance with federal, state and local building and fire codes and laws that are applicable to the particular building.

B. At a minimum, the 1997 Uniform Building Code (UBC) is required to be met for new school facility construction and, as required, for building renovations in existing schools.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-761. Energy Saving Measures

New school facility construction and, as required, building renovations in existing schools, shall include, where reasonable, energy conservation upgrades that will provide dollar savings in excess of the cost of the upgrade within eight years of the installation.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-762. Reserved

R7-6-763. Reserved

R7-6-764. Reserved

R7-6-765. Building Systems

A. Building systems in a school facility must be in working order and capable of being properly maintained. A building system shall be considered to be in "working order and capable of being maintained," if all of the following:
1. The system is capable of being operated as intended and maintained.
2. Newly manufactured or refurbished replacement parts are available.
3. The remaining life expectancy of the system, at the time of the initial statewide assessment, is at least three years.
4. The system is capable of supporting the gross square footage standard and minimum school facility guidelines established in this Article.
5. Components of the system present no imminent danger of personal injury.

B. Building systems include, as required by law, roof, plumbing, telephone, electrical, and heating and cooling systems as well as fire alarm, two-way internal communication, computer cabling, and existing security systems.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-766. Reserved

R7-6-767. Reserved

R7-6-768. Reserved

R7-6-769. Reserved

R7-6-770. Building Structural Soundness

A school facility must be structurally sound. A school facility shall be considered structurally sound if the building presents no imminent danger or major visible signs of decay or distress, and the remaining life expectancy of the building structure appears to be at least a minimum of three years.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-771. Exterior Envelope, Interior Surfaces and Interior Finishes

The exterior envelope, interior surfaces, and interior finishes at school facilities must be safe and capable of being maintained.

1. An exterior envelope is safe and capable of being maintained if:
   a. Walls and roof are weather tight under normal conditions with routine upkeep;
   b. Doors and windows are weather tight under normal conditions with routine upkeep; and
   c. The building structural systems support the loads imposed on them.
2. An interior surface is safe and capable of being maintained if it is:
   a. Structurally sound;
   b. Capable of supporting a finish; and
   c. Capable of continuing in its intended use with normal maintenance and repair for at least three years after the initial statewide assessment.
3. An interior finish is safe and capable of being maintained if it is:
   a. Free of exposed lead paint;
   b. Free of friable asbestos; and
   c. Capable of continuing in its intended use, with normal maintenance and repair, for at least three years after the initial statewide assessment.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-772. Reserved

R7-6-773. Reserved

R7-6-774. Reserved

R7-6-775. Minimum Gross Square Footage

The ASDB shall have sufficient school facilities, which comply with minimum school facility guidelines established in this Article, to meet the per pupil minimum adequate gross square footage requirements for the ASDB as determined by law, based on number and grade distribution of the students served by the ASDB.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-776. Assessment of Minimum Gross Square Footage

A. Computation of the gross square footage of a school facility may be by physical measure or by calculation based on architectural plan documents.

B. The gross square footage of a school facility equals all space within the facility excluding space used for ASDB administrative purposes.

C. The gross square footage of the ASDB shall equal the sum of the gross square footage of each school facility owned by the ASDB.

D. The minimum gross square footage of the ASDB equals the sum of the products of the students in each grade or program for preschool children with disabilities or kindergarten program multiplied by the minimum adequate gross square footage requirements per pupil, applicable to the ASDB for such grade or program.

E. For the purpose of assessment of minimum gross square footage, the number of children in all grades and kindergarten shall be evenly distributed across all grades and kindergarten served by the ASDB.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-777. Reserved

R7-6-778. Reserved

R7-6-779. Reserved

R7-6-780. Student Boarding Space

Each ASDB campus shall provide safe and sanitary student boarding for resident ASDB students as follows:

1. A student dormitory consisting of a living area, resident kitchen, and bedroom for each student in grades preschool through 12 at a ratio of 400 square feet per student.
2. A bedroom for each Resource housing at a ratio of 150 square feet per occupant,
3. One live-in assistant housing (apartment) for every eight resident students at a ratio of 500 square feet per live-in assistant.
4. One laundry room for every student dormitory at a ratio of 100 square feet for every eight resident students.
5. All independent living dormitory space shall be constructed with 300 square feet per student with no fewer than two students per dormitory.

Historical Note

New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-781. ASDB Program Requirement Facilities

A. Each ASDB campus shall provide minimum facilities required to support ASDB audiology program requirements at a ratio of five square feet per deaf student and one square foot per blind student.

B. Each ASDB campus shall provide minimum facilities required to support ASDB auditory training and speech therapy program requirements at a ratio of three square feet per deaf student and one square foot per blind student.

C. Each ASDB campus shall provide minimum facilities required to support ASDB low vision program requirements at a ratio of three square feet per student.

D. Each ASDB campus shall provide minimum facilities required to support ASDB occupational and physical therapy program requirements at a ratio of five square feet per student with a minimum of 1,500 square feet.

E. Each ASDB campus shall provide minimum facilities required to support ASDB orientation and mobility program requirements at a ratio of six square feet per blind student.

F. Each ASDB campus shall provide a distance learning classroom required to support ASDB program requirements. This facility shall be at a minimum a 600 square foot separate/dedicated space for teaching to satellite, remote, and shared schools.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-782. Student Health Center
Each ASDB boarding campus shall have space for a student health center at a ratio of 13 square feet per student.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-783. Parent Outreach Program
Each ASDB campus shall have space for a Parent Outreach Program at a ratio of 10 square feet per family with students enrolled at the campus with a minimum area of 300 square feet.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-784. Reserved

R7-6-785. Expired

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4). Section expired under A.R.S. § 41-1056(E) at 11 A.A.R. 3252, effective June 30, 2005 (05-3).

R7-6-786. Reserved

R7-6-787. Reserved

R7-6-788. Reserved

R7-6-789. Reserved

R7-6-790. Guidelines Exception
The Board may grant an exception from any of the guidelines requirements, upon agreement between the Board and the school district. The Board shall grant an exception if it determines that the intent of the guideline is capable of being met by the ASDB in an alternate manner. If the Board grants the exception, the ASDB shall be deemed to meet the guideline and is not eligible for state funding to meet the guideline.

Historical Note
New Section made by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 8. REPEALED

R7-6-801. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 9. REPEALED

R7-6-901. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-902. Reserved
through
R7-6-910. Reserved

R7-6-911. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-912. Reserved
through
R7-6-920. Reserved

R7-6-921. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-922. Reserved
through
R7-6-930. Reserved

R7-6-931. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-932. Reserved
through
R7-6-940. Reserved

R7-6-941. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 10. REPEALED

R7-6-1001. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section

repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-1002. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-1003. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-1004. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 11. REPEALED

R7-6-1101. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 12. REPEALED

R7-6-1201. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 13. REPEALED

R7-6-1301. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-1302. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 14. REPEALED

R7-6-1401. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

R7-6-1402. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 15. REPEALED

R7-6-1501. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

ARTICLE 16. REPEALED

R7-6-1601. Repealed

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Section repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

EXHIBIT A. REPEALED

Historical Note
Adopted by exempt rulemaking at 6 A.A.R. 917, effective April 30, 1999, filed in the Office of the Secretary of State January 13, 2000 (Supp. 00-1). Exhibit A repealed by exempt rulemaking at 8 A.A.R. 287, effective June 7, 2001 (Supp. 01-4).

15-2002. Powers and duties; executive director; staffing; report

A. The school facilities board shall:

1. Make assessments of school facilities and equipment deficiencies and approve the distribution of grants as appropriate.

2. Maintain a database of school facilities to administer the building renewal grant fund and new school facilities formula. The facilities listed in the database must include all buildings that are owned by school districts. The school facilities board shall ensure that the database is updated on at least an annual basis. Each school district shall report to the school facilities board no later than September 1 of each year information as required by the school facilities board for the administration of the building renewal grant fund and computation of new school facilities formula distributions, including the nature and cost of major repairs, renovations or physical improvements to or replacement of building systems or equipment that were made in the previous year and that were paid for either with local monies or monies provided by the school facilities board from the building renewal grant fund. Each school district shall report any school or school buildings that have been closed, that have been leased to another entity or that operate as a charter school. The school facilities board may review or audit the information, or both, to confirm the information submitted by a school district. Notwithstanding any other provision of this chapter, if a school district converts space that is listed in the database maintained pursuant to this paragraph to space that will be used for administrative purposes, the school district is responsible for any costs associated with the conversion, maintenance and replacement of that space. If a building is significantly upgraded or remodeled, the school facilities board shall adjust the age of that school facility in the database as follows:

(a) Determine the building capacity value as follows:

(i) Multiply the student capacity of the building by the per pupil square foot capacity established by section 15-2041.

(ii) Multiply the product determined in item (i) of this subdivision by the cost per square foot established by section 15-2041.

(b) Divide the cost of the renovation by the building capacity value determined in subdivision (a) of this paragraph.

(c) Multiply the quotient determined in subdivision (b) of this paragraph by the currently listed age of the building in the database.

(d) Subtract the product determined in subdivision (c) of this paragraph from the currently listed age of the building in the database, rounded to the nearest whole number. If the result is a negative number, use zero.

3. Inspect school buildings at least once every five years to ensure compliance with the building adequacy standards prescribed in section 15-2011 and routine preventative maintenance guidelines as prescribed in this section with respect to construction of new buildings and maintenance of existing buildings. The school facilities board shall randomly select twenty school districts every thirty months and inspect them pursuant to this paragraph.

4. Review and approve student population projections submitted by school districts to determine to what extent school districts are entitled to monies to construct new facilities pursuant to section 15-2041. The board shall make a final determination within six months of the receipt of an application by a school district for monies from the new school facilities fund.

5. Certify that plans for new school facilities meet the building adequacy standards prescribed in section 15-2011.

6. Develop prototypical elementary and high school designs. The board shall review the design differences between the schools with the highest academic productivity scores and the schools with the lowest academic productivity scores. The board shall also review the results of a valid and reliable survey of parent quality rating in the highest performing schools and the lowest performing schools in this state. The survey of parent quality rating shall be administered by the department of education. The board shall consider the design elements of the schools with the highest academic productivity scores and parent quality ratings in the development of elementary and high school designs. The board shall develop separate school designs for elementary, middle and high schools with varying pupil capacities.

7. Develop application forms, reporting forms and procedures to carry out the requirements of this article.

8. Review and approve or reject requests submitted by school districts to take actions pursuant to section 15-341, subsection G.

9. Submit electronically an annual report on or before December 15 to the speaker of the house of representatives, the president of the senate, the superintendent of public instruction, the secretary of state and the governor that includes the following information:

(a) A detailed description of the amount of monies distributed by the school facilities board in the previous fiscal year.

(b) A list of each capital project that received monies from the school facilities board during the previous fiscal year, a brief description of each project that was funded and a summary of the board's reasons for the distribution of monies for the project.

(c) A summary of the findings and conclusions of the building maintenance inspections conducted pursuant to this article during the previous fiscal year.

(d) A summary of the findings of common design elements and characteristics of the highest performing schools and the lowest performing schools based on academic productivity,

including the results of the parent quality rating survey. For the purposes of this subdivision, "academic productivity" means academic year advancement per calendar year as measured with student-level data using the statewide nationally standardized norm-referenced achievement test.

10. On or before December 1 of each year, report electronically to the joint committee on capital review the amounts necessary to fulfill the requirements of sections 15-2022 and 15-2041 for the following three fiscal years. In developing the amounts necessary for this report, the school facilities board shall use the most recent average daily membership data available. On request from the board, the department of education shall make available the most recent average daily membership data for use in calculating the amounts necessary to fulfill the requirements of section 15-2041 for the following three fiscal years. The board shall provide copies of the report to the president of the senate, the speaker of the house of representatives and the governor.

11. Adopt minimum school facility adequacy guidelines to provide the minimum quality and quantity of school buildings and the facilities and equipment necessary and appropriate to enable pupils to achieve the educational goals of the Arizona state schools for the deaf and the blind. The school facilities board shall establish minimum school facility adequacy guidelines applicable to the Arizona state schools for the deaf and the blind.

12. In each even-numbered year, report electronically to the joint committee on capital review the amounts necessary to fulfill the requirements of section 15-2041 for the Arizona state schools for the deaf and the blind for the following two fiscal years. The Arizona state schools for the deaf and the blind shall incorporate the findings of the report in any request for new school facilities monies. Any monies provided to the Arizona state schools for the deaf and the blind for new school facilities are subject to legislative appropriation.

13. On or before June 15 of each year, submit electronically detailed information regarding demographic assumptions, a proposed construction schedule and new school construction cost estimates for individual projects approved in the current fiscal year and expected project approvals for the upcoming fiscal year to the joint committee on capital review for its review. A copy of the report shall also be submitted electronically to the governor's office of strategic planning and budgeting. The joint legislative budget committee staff, the governor's office of strategic planning and budgeting staff and the school facilities board staff shall agree on the format of the report.

14. Every two years, provide school districts with information on improving and maintaining the indoor environmental quality in school buildings.

15. On or before December 31 of each year, report to the joint legislative budget committee on all class B bond approvals by school districts in that year. Each school district shall report to the school facilities board on or before December 1 of each year information required by the school facilities board for the report prescribed in this paragraph.

B. The school facilities board may contract for the following services in compliance with the procurement practices prescribed in title 41, chapter 23:

1. Private services.

2. Construction project management services.

3. Assessments for school buildings to determine if the buildings have outlived their useful life pursuant to section 15-2041, subsection G.

4. Services related to land acquisition and development of a school site.

C. The governor shall appoint an executive director of the school facilities board pursuant to section 38-211. The executive director is eligible to receive compensation as determined pursuant to section 38-611 and may hire and fire necessary staff subject to title 41, chapter 4, article 4 and as approved by the legislature in the budget. The executive director shall have demonstrated competency in school finance, facilities design or facilities management, either in private business or government service. The executive director serves at the pleasure of the governor. The staff of the school facilities board is exempt from title 41, chapter 4, articles 5 and 6. The executive director:

1. Shall analyze applications for monies submitted to the board by school districts.

2. Shall assist the board in developing forms and procedures for the distribution and review of applications and the distribution of monies to school districts.

3. May review or audit, or both, the expenditure of monies by a school district for deficiencies corrections and new school facilities.

4. Shall assist the board in the preparation of the board's annual report.

5. Shall research and provide reports on issues of general interest to the board.

6. May aid school districts in the development of reasonable and cost-effective school designs in order to avoid statewide duplicated efforts and unwarranted expenditures in the area of school design.

7. May assist school districts in facilitating the development of multijurisdictional facilities.

8. Shall assist the board in any other appropriate matter or method as directed by the members of the board.

9. Shall establish procedures to ensure compliance with the notice and hearing requirements prescribed in section 15-905. The notice and hearing procedures adopted by the board shall include the requirement, with respect to the board's consideration of any application filed after July 1, 2001 or after December 31 of the year in which the property becomes territory in the vicinity of a military airport or ancillary military facility as defined in section 28-8461 for monies

to fund the construction of new school facilities proposed to be located in territory in the vicinity of a military airport or ancillary military facility, that the military airport receive notification of the application by first class mail at least thirty days before any hearing concerning the application.

10. May expedite any request for monies in which the local match was not obtained for a project that received preliminary approval by the state board for school capital facilities.

11. Shall expedite any request for monies in which the school district governing board submits an application that shows an immediate need for a new school facility.

12. Shall make a determination as to administrative completion within one month after the receipt of an application by a school district for monies from the new school facilities fund.

13. Shall provide technical support to school districts as requested by school districts in connection with the construction of new school facilities and the maintenance of existing school facilities and may contract directly with construction project managers pursuant to subsection B of this section. This paragraph does not restrict a school district from contracting with a construction project manager using district or state resources.

D. When appropriate, the school facilities board shall review and use the statewide school facilities inventory and needs assessment conducted by the joint committee on capital review and issued in July, 1995.

E. The school facilities board shall contract with one or more private building inspectors to complete an initial assessment of school facilities and equipment and shall inspect each school building in this state at least once every five years to ensure compliance with section 15-2011. A copy of the inspection report, together with any recommendations for building maintenance, shall be provided to the school facilities board and the governing board of the school district.

F. The school facilities board may consider appropriate combinations of facilities or uses in making assessments of and curing deficiencies pursuant to subsection A, paragraph 1 of this section and in certifying plans for new school facilities pursuant to subsection A, paragraph 5 of this section.

G. The board shall not award any monies to fund new facilities that are financed by class A bonds that are issued by the school district.

H. The board shall not distribute monies to a school district for replacement or repair of facilities if the costs associated with the replacement or repair are covered by insurance or a performance or payment bond.

I. The board may contract for construction services and materials that are necessary to correct existing deficiencies in school district facilities. The board may procure the construction services necessary pursuant to this subsection by any method, including construction-manager-at-risk, design-build, design-bid-build or job-order-contracting as provided by title 41, chapter 23. The

construction planning and services performed pursuant to this subsection are exempt from section 41-791.01.

J. The school facilities board may enter into agreements with school districts to allow school facilities board staff and contractors access to school property for the purposes of performing the construction services necessary pursuant to subsection I of this section.

K. Each school district shall develop routine preventative maintenance guidelines for its facilities. The guidelines shall include plumbing systems, electrical systems, heating, ventilation and air conditioning systems, special equipment and other systems and for roofing systems shall recommend visual inspections performed by district staff for signs of structural stress and weakness. The guidelines shall be submitted to the school facilities board for review and approval. If on inspection by the school facilities board it is determined that a school district facility was inadequately maintained pursuant to the school district's routine preventative maintenance guidelines, the school district shall return the building to compliance with the school district's routine preventative maintenance guidelines.

L. The school facilities board may temporarily transfer monies between the capital reserve fund established by section 15-2003, the emergency deficiencies correction fund established by section 15-2022 and the new school facilities fund established by section 15-2041 if all of the following conditions are met:

1. The transfer is necessary to avoid a temporary shortfall in the fund into which the monies are transferred.

2. The transferred monies are restored to the fund where the monies originated as soon as practicable after the temporary shortfall in the other fund has been addressed.

3. The school facilities board reports to the joint committee on capital review the amount of and the reason for any monies transferred.

M. After notifying each school district, and if a written objection from the school district is not received by the school facilities board within thirty days of the notification, the school facilities board may access public utility company records of power, water, natural gas, telephone and broadband usage to assemble consistent and accurate data on utility consumption at school facilities to determine the effectiveness of facility design, operation and maintenance measures intended to reduce energy and water consumption and costs. Any public utility that provides service to a school district in this state shall provide the data requested by the school facilities board pursuant to this subsection.

N. The school facilities board shall not require a common school district that provides instruction to pupils in grade nine to obtain approval from the school facilities board to reconfigure its school facilities. A common school district that provides instruction to pupils in grade nine is not entitled to additional monies from the school facilities board for facilities to educate pupils in grade nine.

15-2011. Minimum school facility adequacy requirements; definition

A. The school facilities board, as determined and prescribed in this chapter, shall provide funding to school districts for new construction as the number of pupils in the district fills the existing school facilities and requires more pupil space.

B. School buildings in a school district are adequate if all of the following requirements are met:

1. The buildings contain sufficient and appropriate space and equipment that comply with the minimum school facility adequacy guidelines established pursuant to subsection F of this section. The state shall not fund facilities for elective courses that require the school district facilities to exceed minimum school facility adequacy requirements. The school facilities board shall determine whether a school building meets the requirements of this paragraph by analyzing the total square footage that is available for each pupil in conjunction with the need for specialized spaces and equipment.

2. The buildings are in compliance with federal, state and local building and fire codes and laws that are applicable to the particular building, except that a school with an aggregate area of less than five thousand square feet is subject to permitting and inspection by a local fire marshal and is only subject to regulation or inspection by the state fire marshal if the county, city or town in which the school is located does not employ a local fire marshal. An existing school building is not required to comply with current requirements for new buildings unless this compliance is specifically mandated by law or by the building or fire code of the jurisdiction where the building is located.

3. The building systems, including roofs, plumbing, telephone systems, electrical systems, heating systems and cooling systems, are in working order and are capable of being properly maintained.

4. The buildings are structurally sound.

C. The standards that shall be used by the school facilities board to determine whether a school building meets the minimum adequate gross square footage requirements are as follows:

1. For a school district that provides instruction to pupils in programs for preschool children with disabilities, kindergarten programs and grades one through six, eighty square feet per pupil in programs for preschool children with disabilities, kindergarten programs and grades one through six.

2. For a school district that provides instruction to up to eight hundred pupils in grades seven and eight, eighty-four square feet per pupil in grades seven and eight.

3. For a school district that provides instruction to more than eight hundred pupils in grades seven and eight, eighty square feet per pupil in grades seven and eight or sixty-seven thousand two hundred square feet, whichever is more.

4. For a school district that provides instruction to up to four hundred pupils in grades nine through twelve, one hundred twenty-five square feet per pupil in grades nine through twelve.

5. For a school district that provides instruction to more than four hundred and up to one thousand pupils in grades nine through twelve, one hundred twenty square feet per pupil in grades nine through twelve or fifty thousand square feet, whichever is more.

6. For a school district that provides instruction to more than one thousand and up to one thousand eight hundred pupils in grades nine through twelve, one hundred twelve square feet per pupil in grades nine through twelve or one hundred twenty thousand square feet, whichever is more.

7. For a school district that provides instruction to more than one thousand eight hundred pupils in grades nine through twelve, ninety-four square feet per pupil in grades nine through twelve or two hundred one thousand six hundred square feet, whichever is more.

D. The school facilities board may modify the square footage requirements prescribed in subsection C of this section or modify the amount of monies awarded to cure the square footage deficiency pursuant to this section for particular school districts based on extraordinary circumstances for any of the following considerations:

1. The number of pupils served by the school district.

2. Geographic factors.

3. Grade configurations other than those prescribed in subsection C of this section.

E. In measuring the square footage per pupil requirements of subsection C of this section, the school facilities board shall:

1. Use the most recent one hundredth day average daily membership.

2. For each school, use the lesser of either:

(a) Total gross square footage.

(b) Student capacity multiplied by the appropriate square footage per pupil prescribed by subsection C of this section.

3. Consider the total space available in all schools in use in the school district, except that the school facilities board shall allow an exclusion of the square footage for certain schools and the pupils within the schools' boundaries if the school district demonstrates to the board's satisfaction unusual or excessive busing of pupils or unusual attendance boundary changes between schools.

4. Compute the gross square footage of all buildings by measuring from exterior wall to exterior wall. Square footage used solely for district administration, storage of vehicles and other nonacademic purposes shall be excluded from the net square footage.

5. Include all portable and modular buildings.

6. Include in the net square footage new construction funded wholly or partially by the school facilities board based on the square footage funded by the school facilities board. If the new construction is to exceed the square footage funded by the school facilities board, the excess square footage shall not be included in the net square footage if any of the following applies:

(a) The excess square footage was constructed before July 1, 2002 or funded by a class B bond, impact aid revenue bond or capital outlay override approved by the voters after August 1, 1998 and before June 30, 2002 or funded from unrestricted capital outlay expended before June 30, 2002.

(b) The excess square footage of new school facilities does not exceed twenty-five percent of the minimum square footage requirements pursuant to subsection C of this section.

(c) The excess square footage of expansions to school facilities does not exceed twenty-five percent of the minimum square footage requirements pursuant to subsection C of this section.

7. Exclude square footage built under a developer agreement according to section 15-342, paragraph 33 until the school facilities board provides funding for the square footage under section 15-2041, subsection O.

8. Include square footage that a school district has leased to another entity, including square footage leased to a charter school that is sponsored by a school district pursuant to section 15-183.

F. The school facilities board shall adopt rules establishing minimum school facility adequacy guidelines. The guidelines shall provide the minimum quality and quantity of school buildings and facilities and equipment necessary and appropriate to enable pupils to achieve the academic standards pursuant to section 15-203, subsection A, paragraphs 12 and 13 and sections 15-701 and 15-701.01. At a minimum, the school facilities board shall address all of the following in developing these guidelines:

1. School sites.

2. Classrooms.

3. Libraries and media centers, or both.

4. Cafeterias.

5. Auditoriums, multipurpose rooms or other multiuse space.

6. Technology.

7. Transportation.

8. Facilities for science, arts and physical education.

9. Other facilities and equipment that are necessary and appropriate to achieve the academic standards prescribed pursuant to section 15-203, subsection A, paragraphs 12 and 13 and sections 15-701 and 15-701.01.

10. Appropriate combinations of facilities or uses listed in this section.

G. The board shall consider the facilities and equipment of the schools with the highest academic productivity scores, as prescribed in section 15-2002, subsection A, paragraph 9, subdivision (d), and the highest parent quality ratings in the establishment of the guidelines.

H. The school facilities board may consider appropriate combinations of facilities or uses in making assessments of and curing existing deficiencies pursuant to section 15-2002, subsection A, paragraph 1 and in certifying plans for new school facilities pursuant to section 15-2002, subsection A, paragraph 5.

I. For the purposes of this section, "student capacity" means the capacity adjusted to include any additions to or deletions of space, including modular or portable buildings at the school. The school facilities board shall determine the student capacity for each school in conjunction with each school district, recognizing each school's allocation of space as of July 1, 1998, to achieve the academic standards prescribed pursuant to section 15-203, subsection A, paragraphs 12 and 13 and sections 15-701 and 15-701.01.

D-3

ARIZONA DEPARTMENT OF ECONOMIC SECURITY (F-16-0105)

Title 6, Chapter 18, Article 1, Definitions; Article 7, Life-Safety Inspection

GOVERNOR'S REGULATORY REVIEW COUNCIL
ANALYSIS OF FIVE-YEAR REVIEW REPORT

MEETING DATE: February 2, 2016 **AGENDA ITEM: D-3**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Kara Kerker and Chris Kleminich

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF ECONOMIC SECURITY (F-16-0105)**
Title 6, Chapter 18, Article 1, Definitions; Article 7, Life-Safety Inspection

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COMMENTS ON THE FIVE-YEAR-REVIEW REPORT

Purpose of the Agency and Number of Rules in the Report

The purpose of the Arizona Department of Economic Security (Department) is "to provide social services, welfare programs, vocational rehabilitation and employment services and . . . developmental disability programs." Laws 2008, Ch. 104, § 3.

This five-year review report covers ten rules in A.A.C. Title 6, Chapter 18, Articles 1 and 7, related to the Office of Licensing, Certification, and Regulation.

Article Contents, Including the Subject Matter of Each Rule in the Report

Article 1 contains one rule that addresses definitions.

Article 7 contains nine rules, related to life-safety inspections, that address applications; general condition and cleanliness of settings; safeguarding of hazards; storage of medications; safe appliances; electrical safety; plumbing requirements; fire safety; and pool requirements.

Year that Each Rule was Last Amended or Newly Made

All of the rules were newly made by exempt rulemaking on October 24, 2005.

Proposed Action

The Department plans to consolidate rules relating to life-safety inspection into A.A.C. Title 6, Chapter 6, related to Developmental Disabilities, and to repeal the remaining rules in Chapter 18. The Department plans to take these actions within 24 months of expiration of the moratorium, or receipt of an exception from the Governor's Office.

Summary of Reasons for the Proposed Action

On January 13, 2014, Executive Order 2014-01 established a separate Division of Child Safety and Family Services; thereby separating the Child Welfare licensing functions of the Office of Licensing, Certification, and Regulation (OLCR) from the Development Disabilities licensing functions. Effective May 29, 2014, A.R.S. § 8-451 created the Arizona Department of Child Safety (DCS), which was assigned the responsibility and authority to license foster homes and other child welfare programs. Licensing of these establishments no longer falls under the purview of Chapter 18. DCS was also given the responsibility and authority for oversight of Child Welfare Agencies operating Residential Group Care Facilities. As such, DCS promulgated rules pertaining to foster homes and other child welfare programs effective January 24, 2016. The rules in Chapter 18 related to foster homes and other child welfare programs should be repealed and the rules related to life-safety inspection for adults should be consolidated into Title 6, Chapter 6, Developmental Disabilities, as it is a more appropriate location.

Exemption or Request and Approval for Exception from the Moratorium

The Department indicates that on April 2, 2015, the Department sent a request to the Governor's Office for an exception to proceed with consolidating rules relating to life-safety inspection into Title 6, Chapter 6. Based on guidance from the Governor's Office, on September 2, 2015, the Department submitted a revised request, for which no approval was provided prior to the expiration of Executive Order 2015-01.

Substantive or Procedural Concerns

None.

Analysis of the agency's report pursuant to criteria in A.R.S. § 41-1056 and R1-6-301:

1. **<u>Has the agency certified that it is in compliance with A.R.S. § 41-1091?</u>**

Yes. The Department has certified its compliance with A.R.S. § 41-1091.

2. **<u>Has the agency analyzed the rules' effectiveness in achieving their objectives?</u>**

Yes. The Department indicates that all of the rules, except for Sections 703, 705, 707, and 709, are effective in achieving their objectives. The Department proposes the following changes to these rules to improve effectiveness:

- Section 703(6) prohibits the Office of Licensing, Certification, and Regulation (OLCR) regulated settings from having animals that pose a hazard due to behavior or disease. Without further explanation, the rule has been difficult to enforce and has created frustration for care providers. The rule would be more effective if it is amended to clarify the specific requirements and limitations on prohibited animals.

- Section 705 pertains to the operation and safety of appliances in the licensed setting, but fails to prohibit the indoor use of appliances intended solely for outdoor use. This rule would be more effective if this additional provision were included in the rule.

- Section 707(B) requires the OLCR to collect a sample of water for testing by a state-certified laboratory for all homes with a non-municipal source of water. Having the OLCR inspector collect water samples has proven to be duplicative in most cases. Most settings with a non-municipal source of water already have evidence of water testing by a state-certified laboratory. The rule, as written, does not take this possibility into consideration. The rule would be more effective if it is amended to allow consideration of and acceptance of evidence of existing water test results.

- Section 707(D) specifies a maximum hot water temperature, but does not set a minimum hot water temperature. As a result, it is possible for a setting that does not have any hot water to pass the inspection, even though the service may include food preparation and personal care. The rule would be more effective if language is added to require sanitary procedures for such settings, by requiring hot water or other sanitation solutions.

- Section 707(E) requires a shower or tub for every ten persons receiving care; however, these regulations also apply to non-residential environments, which may not include personal care services. The rule would be more effective if the language is added to exempt non-residential environments from this requirement.

- Section 709(A) requires rescue equipment for pools deeper than 4 feet. The required equipment has a collective cost of approximately $100 and can be cost-prohibitive for some applicants. There is no empirical evidence that the rescue equipment is effective in protecting or saving lives in residential pools.

- Section 709(B) requires a fenced enclosure for swimming pools. Questions are frequently raised by care providers regarding whether certain types of fencing are permissible, suggesting that the rule language may require clarification. Additionally, the rule implies but does not explicitly state that the fence must remain intact throughout the term of the license. The rule would be more effective if it is amended to clarify the enclosure requirements.

3. <u>Has the agency received any written criticisms of the rules during the last five years, including any written analysis questioning whether the rules are based on valid scientific or reliable principles or methods?</u>

No. The Department notes that it has not received any written criticisms of the rules during the last five years.

4. <u>Has the agency analyzed whether the rules are authorized by statute?</u>

Yes. The Department cites to A.R.S. § 36-554(A)(2)-(10) as general statutory authority for the rules reviewed. Notably, subsection (2) provides that the Department shall establish

standards, provide technical assistance, and supervise all developmental disability programs and services operated by or supported by the Department. In addition, subsection (10) provides that the Director shall do all other things reasonably necessary and proper to carry out the duties and the provisions of this chapter (Title 36, Public Health and Safety, Chapter 5.1, State Department of Developmental Disabilities).

Additionally, the Department cites to A.R.S. § 36-554(C)(6) under which it may "[m]ake and amend rules from time to time as deemed necessary for the proper administration of programs and services for the treatment of persons with developmental disabilities, for the admission of persons with developmental disabilities to the programs and services and to carry out the purposes of this chapter."

The Department also cites to A.R.S. § 41-1954(A)(3) under which it shall adopt rules it deems necessary or desirable to further the objectives and programs of the Department.

Furthermore, the Department cites to A.R.S. § 36-592(B) as specific authority, which states that "[b]efore issuing a license to an applicant[,] the [D]epartment shall investigate the activities and standards of care within the setting, the financial stability of the applicant, the character and training of the applicant and the adequacy of services. The [D]epartment by rule shall establish standards for licensure." Staff would note that the Department also has the requirement and authority to monitor and inspect adult developmental homes, child developmental foster homes, and secure facilities under A.R.S. § 36-592(D) and (F).

5. <u>Has the agency analyzed the rules' consistency with other rules and statutes?</u>

Yes. The Department indicates that the rules are consistent with other rules and statutes.

6. <u>Has the agency analyzed the current enforcement status of the rules?</u>

The Department indicates that it enforces the rules to the extent that it is not interfering with the jurisdiction of the Department of Child Safety. The Department also indicates that Section 703(6) is difficult to enforce and proposes the aforementioned change[1] to the rule to improve enforcement.

7. <u>Has the agency analyzed whether the rules are clear, concise, and understandable?</u>

Yes. The Department indicates that all the rules are generally clear, concise, and understandable, except for sections 703, 705, 707, and 709. The Department has proposed changes to improve the clarity, conciseness, and understandability of these rules.[2]

[1] See Section 2 "Effectiveness" of this memo for the stated change to Rule 703(6).
[2] See Section 2 "Effectiveness" of this memo for the stated changes to Rules 703, 705, 707, and 709.

8. Stringency of the Rules:

a. Are the rules more stringent than corresponding federal law?

The Department indicates that no federal law directly corresponds to Chapter 18.

b. If so, is there statutory authority to exceed the requirements of federal law?

Not applicable.

9. For rules adopted after July 29, 2010:

a. Do the rules require issuance of a regulatory permit, license or agency authorization?

A.R.S. § 41-1037 is not applicable, as the rules were last amended in 2005 and do not require the issuance of a regulatory permit, license, or agency authorization.

b. If so, are the general permit requirements of A.R.S. § 41-1037 met or does an exception apply?

Not applicable.

10. Has the agency indicated whether it completed the course of action identified in the previous five-year-review report?

Yes. The Department indicates that in the five-year-review report approved by the Council in 2011, the Department planned to submit a Notice of Final Rulemaking to the Council by January 2013. The Department sent a request to the Governor's Office to adopt new rules in Chapter 18 pertaining to the licensing of foster and developmental homes. On December 13, 2011, the Department sent a draft rulemaking to the Governor's Office and requested a moratorium exception to proceed through final rulemaking. The Department continued to revise the draft based on input from the Governor's Office, but an exception to proceed through final rulemaking was not granted.

Additionally, on January 13, 2014, Executive Order 2014-01 established a separate Division of Child Safety and Family Services; thereby separating the Child Welfare licensing functions of the Office of Licensing, Certification, and Regulation from the Developmental Disabilities licensing functions of the Department. This halted the Department's drafting of the rulemaking pertaining to the licensing of foster and developmental homes.

Furthermore, on January 5, 2015, all of the Department's rulemakings were put on hold as a result of the moratorium imposed by Executive Order 2015-01.

11. Has the agency included a proposed course of action?

Yes, as indicated above, the Department plans to consolidate rules relating to life-safety inspection into Title 6, Chapter 6, Developmental Disabilities and to repeal the remaining rules in Chapter 18 within 24 months of the receipt of approval from the current request for an exemption from the Governor's Office or expiration of the moratorium.

Conclusion

The report meets the requirements of A.R.S. § 41-1056 and R1-6-301. This analyst recommends the report be approved.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: D-3**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF ECONOMIC SECURITY (F-16-0105)**
Title 6, Chapter 18, Article 1, Definitions; Article 7, Life-Safety Inspection

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I reviewed the five-year-review report's economic, small business, and consumer impact comparison for compliance with A.R.S. § 41-1056 and make the following comments.

1. Economic Impact Comparison

An economic, small business, and consumer impact statement (EIS) was not available for the rules in Articles 1 and 7 contained in the five-year-review report. The rules in Chapter 18 were exempt from Council review when originally established.

The report addresses the life-safety inspection rules that apply to foster homes, child welfare residential group homes, adult developmental homes, child developmental homes, and setting providing home and community based services. These rules are intended to protect the health, safety, and welfare of children and vulnerable adults from environmental or facility-based hazards.

The Department notes that significant changes have occurred since 2010 with the establishment of the Department of Child Safety and the associated transfer of foster care licensing responsibility.

2. Has the agency determined that the rules impose the least burden and costs to persons regulated by the rules?

Yes. The Department indicates that once the proposed changes are made to the rules, the probable benefits of the rules will outweigh within this state the probable costs of the rules, and the rules will impose the least burden and costs to persons regulated by these rules, including paperwork and other compliance costs, necessary to achieve the underlying regulatory objectives.

3. Was an analysis submitted to the agency under A.R.S. § 41-1056(A)(7)?

No analysis was submitted to the agency by another person that compares the rules' impact on this state's business competitiveness to the impact on businesses in other states under A.R.S. § 41-1056(A)(7).

4. Conclusion

After review, staff concludes that the report complies with A.R.S. § 41-1056 and recommends approval.

DEPARTMENT OF ECONOMIC SECURITY
Your Partner For A Stronger Arizona

Douglas A. Ducey
Governor

Timothy Jeffries
Director

October 28, 2015

Bret Parke, Council Chair
Governor's Regulatory Review Council
Department of Administration
100 North 15th Avenue, Suite 402
Phoenix, Arizona 85007

Re: Five-year Review Report for A.A.C. Title 6, Chapter 18, Department of Economic Security Office of Licensing, Certification, and Regulation

Dear Mr. Parke:

Enclosed is the Department of Economic Security's Five-year Review Report on A.A.C. Title 6, Chapter 18. Included in the report are copies of the authorizing statutes and rules, along with any available economic impact statements.

Pursuant to A.R.S. § 41-1056(A) and A.A.C. R1-6-301(C)(4), I certify that the Arizona Department of Economic Security is in compliance with A.R.S. § 41-1091.

Thank you for your attention to this report. If you have any questions, or require more information, please contact me at (602) 542-6555. The Department will be present at the Council meetings to respond to any questions the Council members may have about the report.

Sincerely,

Robert Hobbs
Lead Rules Analyst

Enclosures

1789 W. Jefferson, S/C 837A, Phoenix, AZ 85007 • P.O. Box 6123, Phoenix, AZ 85005
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Arizona Department of Economic Security

Five-year Review Report

Title 6. Economic Security

Chapter 18. Department of Economic Security

Office of Licensing, Certification, and Regulation

Article 1. Definitions

Article 7. Life-safety Inspection

October 30, 2015

INTRODUCTION

Title 6, Chapter 18 covers life-safety inspection rules that apply to:

1. Foster homes, regulated under Arizona Administrative Code, Title 6, Chapter 5, Article 58;
2. Adult developmental homes, regulated under Arizona Administrative Code, Title 6, Chapter 6, Article 11;
3. Child developmental foster homes, regulated under Arizona Administrative Code, Title 6, Chapter 6, Article 10;
4. Child welfare agencies operating residential group care facilities and shelter care facilities regulated under Arizona Administrative Code, Title 6, Chapter 5, Article 74, but not outdoor experience programs; and
5. Settings providing home and community based services for individuals with developmental disabilities, regulated under Arizona Administrative Code, Title 6, Chapter 6, Article 15.

Article 1, Definitions, contains definitions for terms used in Article 7.

Article 7, Life-safety Inspection, specifies the life-safety inspection requirements. These requirements are intended to protect the health, safety, and welfare of children and vulnerable adults from environmental or facility-based hazards.

A.R.S. § 8-451, effective May 29, 2014, created the Arizona Department of Child Safety to which the responsibilities and authority for family foster parent licensing were transferred.

The Arizona Department of Economic Security plans to consolidate rules relating to life-safety inspection into Arizona Administrative Code, Title 6, Chapter 6, Developmental

Disabilities. After the Arizona Department of Economic Security consolidates the life-safety inspection rules into Title 6, Chapter 6, and because the Arizona Department of Child Safety promulgated its life-safety inspection rules effective January 24, 2016, the Arizona Department of Economic Security plans to submit the Notice of Final Rulemaking to repeal the rules in Title 6, Chapter 18 within 24 months of the receipt of approval from the Governor's Office or expiration of the moratorium.

ANALYSIS OF RULES

A. STATUTORY AUTHORITY

General: A.R.S. §§ 36-554(A)(2-10) and (C)(6), and 41-1954(A)(3)

Specific: A.R.S. § 36-592(B)

B. OBJECTIVE

ARTICLE 1. DEFINITIONS

R6-18-101. Definitions

The objective of this rule is to define 16 terms used in Article 7. The purpose of this rule is to help the public in understanding the terms used throughout this Chapter.

ARTICLE 7. LIFE-SAFETY INSPECTION

R6-18-701. Application

The objective of this rule is to identify the entities regulated by this Article. The purpose of this rule is to identify the entities to which the Article applies.

R6-18-702. General Condition and Cleanliness of the Setting

The objective of this rule is to establish the minimum standards for cleanliness and the general condition of a setting used to provide regulated care. It specifies items to consider when inspecting premises for cleanliness.

R6-18-703. Safeguarding of Hazards

The objective of this rule is to identify the safeguards care providers are required to implement, to reduce the risk of hazards to children and vulnerable adults in a regulated setting. It specifies hazards to consider when inspecting premises for safety.

R6-18-704. Storage of Medication

The objective of this rule is to require the locked storage of all medications, to protect children and vulnerable adults from unauthorized access to potentially dangerous substances. It specifies the ways in which various medications must be stored.

R6-18-705. Safe Appliances

The objectives of this rule are to ensure the availability of specific appliances within a regulated setting, and to ensure such appliances are in safe working order. It identifies the requirements of these appliances.

R6-18-706. Electrical Safety

The objectives of this rule are to ensure the availability of specific electrical systems within a regulated setting, and to ensure such systems are in safe working order. It identifies the specifics of electrical system requirements.

R6-18-707. Plumbing Requirements

The objectives of this rule are to ensure the availability of specific plumbing systems within a regulated setting, and to ensure such systems are in safe working order. It identifies the specifics of plumbing system requirements.

R6-18-708. Fire Safety

The objectives of this rule are to ensure the availability of specific fire safety equipment and development of procedural safeguards, to reduce the risk of fire hazards to children and vulnerable adults. It specifies items to consider when inspecting premises for fire safety.

R6-18-709. Pool Requirements

The objective of this rule is to require safeguards to reduce the risk of drowning to children and vulnerable adults. It specifies items to consider when inspecting premises for pool safety.

C. EFFECTIVENESS

With the exception of the issues raised below, the rules in Chapter 18 are effective in meeting their objectives.

R6-18-703

R6-18-703(6) prohibits the Office of Licensing, Certification, and Regulation (OLCR) regulated settings from having animals that pose a hazard due to behavior or disease. Without further explanation, the rule has been difficult to enforce and has created frustration for care providers. For example, care providers have inquired about whether certain breeds of dogs, reptiles, and exotic pets are permissible in a licensed setting. The rule would be more effective if it is amended to clarify the specific requirements and limitations.

R6-18-705

R6-18-705 pertains to the operation and safety of appliances in the licensed setting, but fails to prohibit the indoor use of appliances intended solely for outdoor use. This rule would be more effective if this additional provision were included in the rule.

R6-18-707

R6-18-707(B) requires OLCR to collect a sample of water for testing by a state-certified laboratory for all homes with a non-municipal source of water. Having the OLCR inspector collect water samples has proven to be duplicative in most cases. Most settings with a non-

municipal source of water already have evidence of water testing by a state-certified laboratory, but the rule, as written, does not take this possibility into consideration. The rule would be more effective if it is amended to allow consideration of and acceptance of evidence of existing water test results.

R6-18-707(D) specifies a maximum hot water temperature, but does not set a minimum hot water temperature. As a result, it is possible for a setting that does not have any hot water to pass the inspection, even though the service may include food preparation and personal care. The rule would be more effective if the language is added to require sanitary procedures for such settings, by requiring hot water or other sanitation solutions.

R6-18-707(E) requires a shower or tub for every ten persons receiving care; however, these regulations also apply to non-residential environments, which may not include personal care services. The rule would be more effective if the language is added to exempt non-residential environments from this requirement.

R6-18-709

R6-18-709(A) requires rescue equipment for pools deeper than 4 feet. The required equipment (shepherd's crook and ring buoy) has a collective cost of approximately $100 and can be cost-prohibitive for some applicants. There is no empirical evidence that the rescue equipment is effective in protecting or saving lives in residential pools.

R6-18-709(B) requires a fenced enclosure for swimming pools. Questions are frequently raised by care providers regarding whether certain types of fencing are permissible, suggesting that the rule language may require clarification. Additionally, the rule implies but does not explicitly state that the fence must remain intact throughout the term of the license. The rule would be more effective if it is amended to clarify the enclosure requirements.

D. CONSISTENCY

The rules in Chapter 18 are consistent with state and federal law, as well as Department policy and procedures.

E. ENFORCEMENT POLICY

The Department enforces the rules in Chapter 18 to the extent that it does not interfere with the jurisdiction of the newly established Arizona Department of Child Safety.

F. CLEAR, CONCISE, AND UNDERSTANDABLE

The rules in Chapter 18 are clear, concise, and understandable, except as explained in item C above.

G. WRITTEN CRITICISMS

The Department has not received any written criticism regarding the rules in Chapter 18.

H. ECONOMIC IMPACT COMPARISON

An Economic Impact Statement was not required for the original rulemaking in Chapter 18, filed by Notice of Exempt Rulemaking, 11 A.A.R. 3501, effective October 24, 2005. Major changes have occurred since the 2010 rules review due to the creation of the Department of Child Safety (DCS) which is now assigned responsibility for licensing foster homes and other child welfare programs that no longer fall under the Arizona Administrative Code, Title 6, Chapter 18.

OLCR is authorized by Arizona Revised Statutes to license child developmental homes and adult developmental homes and to certify home and community based services for individuals with developmental disabilities. The purpose of regulating DES developmental homes and contracted care providers is to protect vulnerable children and adults receiving services through the establishment and enforcement of safe standards for care.

The Department contracts with private agencies and individuals to provide a variety of services to children and vulnerable adults, including residential care in developmental and group home environments; attendant care; day treatment and training; habilitation; respite care; and therapies, including respiratory, occupational, physical, and speech therapy. The contracts for these services are coordinated through the Division of Developmental Disabilities (DDD).

One component of licensing and certification is the inspection of homes and facilities used for the provision of services. The Regulatory Support Unit within DDD OLCR schedules and conducts these inspections. The Arizona Administrative Code also requires periodic inspections for renewal licensure, relocation of licensed settings, and for significant new construction. Inspections directly impact the health and well-being of clients. Additionally impacted are contracted agencies and individual care providers.

OLCR is funded through legislative appropriations. No fees are currently charged for licensing, certification, or inspections conducted by OLCR.

FY 2015 expenditures reflect inspections done since OLCR became an entity within DDD and separate from the DCS child welfare licensing program, while FY 2010 expenditures reflect inspections performed while the units were combined. This explains the significant change from FY 2010 to FY 2015.

Estimated expenditures for the Regulatory Support Unit

	FY 2010	FY 2015
Expenditures:		
Personnel Related	362,066	268,403
Workspace, Equipment, Services	8,058	5,370
Travel/Vehicles	18,817	1,948
Total	388,941	275,721
Inspection Data:		
SOGHs and ICFs*	NA	113
Initial Inspections	1,722	351
Re-inspections	NA	541
Renewal	1,040	510
Relocation	608	155
Special (new construction/pool install, etc.)	126	33
Total	3,496	1703

*OLCR added inspections of State Operated Group Homes (SOGHs) and Independent Care Facilities (ICFs) beginning Fall 2015 at the request of the DDD Assistant Director.

I. BUSINESS COMPETITIVENESS ANALYSIS

The Department did not receive a business competitive analysis from a member of the public during the process of preparing this report.

J. COURSE OF ACTION FROM PREVIOUS FIVE-YEAR REVIEW REPORT

In the previous Five-year Review Report, approved by the Council on January 11, 2011, the Department had indicated that it planned to submit the Notice of Final Rulemaking to the Governor's Regulatory Review Council by January 2013.

On November 29, 2010, the Department had received an exception from the Governor's Office to draft a rulemaking to repeal Chapter 5, Articles 58 and 59; repeal Chapter 6, Articles 10 and 11; and adopt new rules in Chapter 18 pertaining to the licensing of foster and developmental homes. On December 13, 2011, the Department sent a draft rulemaking to the Governor's Office and requested a moratorium exception to proceed through final rulemaking. The Department continued to revise the draft based on input from the Governor's Office, but an exception to proceed through final rulemaking was not granted.

On January 13, 2014, the Governor's Executive Order 2014-01 established a separate Division of Child Safety and Family Services; thereby separating the Child Welfare licensing functions of the Office of Licensing, Certification, and Regulation from the Developmental Disabilities licensing functions of the Office. This halted the Department's drafting of the rulemaking pertaining to the licensing of foster and developmental homes.

A.R.S. § 8-451, effective May 29, 2014, created the Arizona Department of Child Safety to which the responsibilities and authority for family foster parent licensing were transferred as was the responsibility and authority for oversight of Child Welfare Agencies operating Residential Group Care Facilities.

On January 5, 2015, all of the Department's rulemakings were put on hold as a result of the moratorium imposed by the Governor's Executive Order 2015-01. On April 2, 2015, the

Department sent a request to the Office of the Governor for an exception to proceed with consolidating rules relating to life-safety inspection into Title 6, Chapter 6, Developmental Disabilities. Based on guidance from the Office of the Governor, on September 2, 2015, the Department submitted a revised request. At the time of submission of this Five-year Review Report, the Department is anticipating the response from the Office of the Governor on the revised request.

K. DETERMINATION OF BURDEN AND COSTS

The Department believes that, with the changes recommended in this Report, the probable benefits of the rules will outweigh within this state the probable costs of the rules, and the rules will impose the least burden and costs to persons regulated by these rules, including paperwork and other compliance costs, necessary to achieve the underlying regulatory objectives.

L. CORRESPONDING FEDERAL LAW

There is no corresponding federal law specific to Chapter 18.

M. COMPLIANCE WITH A.R.S. § 41-1037

The Department has determined that A.R.S. § 41-1037 does not apply to these rules, because the rules do not require the issuance of a regulatory permit, license, or agency authorization.

N. PROPOSED ACTION

The Arizona Department of Economic Security plans to consolidate rules relating to life-safety inspection into Title 6, Chapter 6, Developmental Disabilities. After the Arizona Department of Economic Security consolidates the life-safety inspection rules into Title 6, Chapter 6, and because the Arizona Department of Child Safety promulgated its life-safety inspection rules effective January 24, 2016, the Arizona Department of Economic Security plans to submit the Notice of Final Rulemaking to the Council to repeal the rules in Title 6, Chapter 18 within 24 months of the receipt of approval from the Governor's Office or expiration of the moratorium.

TITLE 6. ECONOMIC SECURITY

CHAPTER 18. DEPARTMENT OF ECONOMIC SECURITY OFFICE OF LICENSING, CERTIFICATION, AND REGULATION

(Authority: A.R.S. § 41-1954 et seq.)

Editor's Note: The Chapter heading was updated at the request of the Department. The request was dated June 26, 2008, and filed on June 30, 2008 (Supp. 08-3).

Editor's Note: Sections of this Chapter were made under an exemption from the provisions of A.R.S. Title 41, Chapter 6, under Laws 2004, Chapter 199, § 4.

ARTICLE 1. DEFINITIONS

Section
R6-18-101. Definitions

ARTICLE 2. RESERVED

ARTICLE 3. RESERVED

ARTICLE 4. RESERVED

ARTICLE 5. RESERVED

ARTICLE 6. RESERVED

ARTICLE 7. LIFE-SAFETY INSPECTION

Article 7, consisting of Sections R6-18-701 through R6-18-709, made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (Supp. 05-3).

Section
R6-18-701. Application
R6-18-702. General Condition and Cleanliness of the Setting
R6-18-703. Safeguarding of Hazards
R6-18-704. Storage of Medication
R6-18-705. Safe Appliances
R6-18-706. Electrical safety
R6-18-707. Plumbing Requirements
R6-18-708. Fire Safety
R6-18-709. Pool Requirements

ARTICLE 1. DEFINITIONS

Article 1, consisting of Section R6-18-101 made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (Supp. 05-3).

R6-18-101. Definitions

1. "Care provider" means a person licensed or certified to provide care or supervision in a home or program that is regulated by OLCR.
2. "Firearm" means a handgun, pistol, revolver, rifle, shotgun, or other weapon that is designed to expel a projectile by the action of an explosive.

3. "Hazard" means a condition or situation that may cause or result in physical injury or illness to a child or vulnerable adult.
4. "Individual receiving care" means a child or adult who receives or is eligible for the services listed in R6-18-701.
5. "Life-Safety Inspection" means an examination of the premises by OLCR to verify compliance with standards intended to safeguard children and vulnerable adults from fire hazards and from other hazardous conditions.
6. "Lock" means a device operated by a key, combination, magnet, or keycard to safeguard medications, swimming pools, and highly toxic substances.
7. "Medication" means both prescription and over-the-counter remedies approved as drugs by the U.S. Food and Drug Administration (FDA).
8. "Mobile home" means a trailer that is mounted on wheels or a platform with utility connections exposed under the trailer.
9. "OLCR" means the Office of Licensing, Certification, and Regulation, which is based in the Arizona Department of Economic Security.
10. "Pool" means any natural or man-made body of water that:
    a. Could be used for swimming, recreational, or decorative purposes;
    b. Is greater than 18 inches in depth; and
    c. Includes swimming pools, spas, hot tubs, fountains, and fish-ponds.
11. "Safeguard" means to take reasonable measures to eliminate the risk of harm to an individual receiving care. Where a specific method is not otherwise prescribed in this Article, safeguarding may include:
    a. Locking up a particular substance or item;
    b. Putting a substance or item out of reach;
    c. Erecting a barrier that prevents an individual receiving care from reaching a particular place, item, or substance;
    d. Using protective safety devices; or
    e. Providing supervision.
12. "Setting" means:
    a. The home or building used to provide care or supervision; and
    b. The surrounding property and buildings that are owned, leased, or controlled by the care-provider.
13. "Skirting" means the barrier around the base of a mobile home that is intended to protect utility connections from damage or unauthorized contact.
14. "Slip-resistant surface" means the flooring provides friction to help prevent falls when the surface is wet. A slip resistant surface may be achieved by rippling or corrugating the surface, applying textured strips, installing a secured carpet, using rubber mats, and other similar measures.
15. "Trigger locked" means a firearm has been rendered temporarily or permanently inoperable by blocking the firing or discharge mechanism for the firearm with a locked device.
16. "UL Approved" means an electrical device bears the safety certification mark of a recognized testing laboratory, such as UL (Underwriters Laboratories) or ETL (Electrotechnical Laboratory).

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

ARTICLE 2. RESERVED

ARTICLE 3. RESERVED

ARTICLE 4. RESERVED

ARTICLE 5. RESERVED

ARTICLE 6. RESERVED

ARTICLE 7. LIFE-SAFETY INSPECTION

R6-18-701. Application

This Article applies to:

1. Foster homes, regulated under Title 6, Chapter 5, Article 58;
2. Adult developmental homes, regulated under Title 6, Chapter 6, Article 11;
3. Child developmental foster homes, regulated under Title 6, Chapter 6, Article 10;
4. Child welfare agencies operating residential group care facilities and shelter care facilities regulated under Title 6, Chapter 5, Article 74, but not outdoor experience programs; and
5. Settings providing home and community based services for individuals with developmental disabilities, regulated under Title 6, Chapter 6, Article 15.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-702. General Condition and Cleanliness of the Setting

The care provider shall ensure:

1. The interior and exterior of the setting are maintained in good repair and do not constitute a hazard. Damage that constitutes a hazard includes:
   a. Broken glass;
   b. Surfaces that are rusted, have sharp or jagged edges, or have nails protruding;
   c. Holes in walls, ceilings, or floors; or
   d. Broken furniture, fixtures, appliances, or equipment.
2. Play areas and therapy equipment are in good repair.
3. The setting is clean to the degree that the condition does not constitute a hazard. Conditions that constitute a hazard include rotting food, stale or accumulated urine or feces, or an accumulation of mold.
4. Garbage is removed from the setting at least once each week.
5. The setting and outside play areas are free of insect and rodent infestation, or the setting has an ongoing system to eliminate insects or rodents.
6. Water in a pool on the premises is maintained, is not stagnant, and is clear enough to see through the water to the bottom surface of the pool.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-703. Safeguarding of Hazards

The care provider shall ensure:

1. Highly toxic substances and materials are safeguarded in locked storage. Highly toxic substances include gasoline, lighter fluid, pesticides, radiator fluid, drain cleaner, ammonia, bleach, spray paint, turpentine, and other substances that can cause serious bodily harm or death if improperly used.

2. Household cleaning supplies are safeguarded to prevent unsafe or improper use. Household cleaning supplies are substances that are not intended for ingestion, but generally will not cause serious bodily harm or death if improperly used. Examples of household cleaning supplies include spray cleaners, laundry detergent, furniture polish, and dishwasher detergent.
3. Access to personal grooming supplies is not restricted unless the case plan or service plan for an individual receiving care specifically restricts such access. Personal grooming supplies include toothpaste, hand-soap, shampoo, and deodorant.
4. Firearms, ammunition, and other weapons, including crossbows, stun guns, air guns, and hunting knives are safeguarded to prevent unsafe or improper use. In addition,
   a. Firearms are unloaded, trigger locked, and kept in a locked storage container that is made of unbreakable material.
   b. Ammunition is maintained in locked storage that is separate from firearms.
5. All dogs older than 6 months have current rabies vaccination. Vaccination records are maintained in the setting.
6. Animals in the setting or on the property do not pose a hazard due to behavior or disease.
7. Ramps, bathtubs, and showers have slip-resistant surfaces.
8. Handrails and grab-bars are securely attached and stationary.
9. Skirting is intact around the base of the setting, if the setting is a mobile home.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-704. Storage of Medication

A. The care provider shall ensure:
1. Medication is maintained in locked storage, with the exception of the following:
   a. Medication that may be accessed by an individual receiving care, as specified in that individual's case plan or service plan; and
   b. Medication that must be readily and immediately accessible, such as an asthma inhaler or Epi-pen.
2. Medication that may be unlocked under subsection (1)(a) or (1)(b) is safeguarded to prevent improper use.
3. Medication that must be refrigerated is safeguarded in locked storage, without preventing access to refrigerated food. This may be accomplished by storing refrigerated medication in a locked box within the refrigerator.

B. Programs licensed as child welfare group homes or shelters shall safeguard medications using a double-lock system. A locked box stored inside a locked cabinet is an example of a double-lock system.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-705. Safe Appliances

The care provider shall ensure:
1. Safe and functioning appliances are available for food refrigeration and cooking, if applicable. Safe and functioning refrigerators shall maintain food at or below a temperature of 45° F.
2. Electrical lighting is available in bedrooms, living areas, and rooms used to provide services.
   a. Lighting is sufficient to perform normal activities; and
   b. Light sockets are equipped with light bulbs or safely covered to prevent electrical shock.

3. Adequate heating, cooling, and ventilation are available in bedrooms, living areas, and rooms used to provide services. Temperatures outside the range of 65° - 85° F are indicators of inadequate heating or cooling.
4. At least one operable telephone is available in the setting, unless the licensing authority has approved an alternative system for communication. Telephone includes cellular phones, digital phones, and phones with traditional land lines.
5. If the setting has a clothes dryer, the dryer is safely vented with a non-flammable vent hose.
6. If a portable heater is in the setting, it has a protective covering to keep hands and objects away from the heating element and, it is:
   a. Electric;
   b. UL Approved;
   c. Equipped with a tip-over shut-off switch;
   d. Placed at least 3 feet from curtains, paper, furniture, and any flammable object when in use;
   e. Not used as the primary source for heat in the setting; and
   f. Not used in bedrooms.
7. A carbon monoxide detector-alarm is functioning on each level of the setting that has an appliance or heating device using combustible fuel such as gas, oil, kerosene, wood, or charcoal.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-706. Electrical Safety

The care provider shall ensure:

1. Electrical cords are in good condition; no broken or frayed cords are in use.
2. Electrical panels and outlets are in good condition; no wiring is exposed, and covers are in place.
3. Extension cords are not used on a permanent basis.
4. Electrical outlets are not overloaded.
5. Major appliances are plugged directly into grounded outlets. Major appliances include refrigerators, freezers, dishwashers, stoves, ovens, washers, and dryers.
6. Mid-sized appliances, which include computers, televisions, and stereo equipment, are plugged into:
   a. Grounded outlets; or
   b. Power strips or surge protectors that are plugged into grounded outlets.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-707. Plumbing Requirements

A. The care provider shall ensure that a continuous source of safe drinking water is available to individuals receiving care.

B. If the setting has a non-municipal source of water, the OLCR inspector shall collect a water sample at the time of an initial inspection and may collect a sample at subsequent inspections.

1. The OLCR inspector shall submit the water sample to a state-certified laboratory for total coliform testing. The water sample shall also be tested for nitrate content when care is provided to children under 2 years of age.
2. If the water sample is not within acceptable levels for safe drinking water, the care provider shall provide OLCR a signed, written statement that:
   a. Certifies that individuals receiving care will be provided with safe drinking water, and
   b. Describes the care provider's plan for obtaining safe drinking water.

C. The care provider shall ensure that the sewage disposal for the setting is functioning. If the setting has a septic tank, it shall be in good working order, with no visible signs of leakage on the ground.

D. The care provider shall ensure that hot water temperature in areas for bathing does not exceed 120° F.

E. The care provider shall ensure that at least one working toilet, wash basin, and shower or tub is available for every ten persons living or receiving care in the setting at the same time.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-708. Fire Safety

The care provider shall ensure:

1. Flammables and combustibles are stored more than 3 feet from water heaters, furnaces, portable heaters, and fireplaces, and wood-burning stoves.
2. If the setting has a working fireplace or wood-burning stove, it is protected by a fire screen.
3. A functioning fire extinguisher with a rating of "2A 10BC" or greater is available near the kitchen area. If the setting has multiple levels at least one functioning fire extinguisher with a rating of "2A 10BC" or greater is available on each level.
4. A working smoke detector is installed:
   a. In the main living or program area of the setting;
   b. In each bedroom, if overnight care is provided; and
   c. On each level of a multiple-level setting.
5. A written emergency evacuation plan is developed to provide guidance on the safe and rapid evacuation of the setting. An emergency evacuation plan shall:
   a. Identify two routes of evacuation from each bedroom used by individuals residing in or receiving care in the setting. At least one of the exit routes for these bedrooms leads directly to the outside of the setting.
   b. Identify the location of fire extinguishers and fire evacuation equipment, including rope or chain ladders and emergency lighting, as applicable;
   c. Designate a safe meeting place outside the setting; and
   d. Be maintained in the setting to review with individuals residing in or receiving care in the setting.
6. Settings authorized to provide care or services to six or more individuals shall practice and document the completion of an evacuation drill at least once every three months.
7. The exit routes for the setting are clear of obstruction that could prevent safe and rapid evacuation.
8. The locks on exterior doors and windows, including the front door, screen doors, and bars on windows, are equipped with a quick release mechanism. A quick release mechanism is a lock that can be opened from inside the setting without special knowledge (such as a combination) or equipment (such as a key). The Department may grant an exception to this requirement for a double-key deadbolt on a door if:
   a. There is breakable glass within 40 inches of the interior locking mechanism;
   b. There is another exit with a quick release mechanism on the same level of the setting; and
   c. The key for the deadbolt is permanently maintained in a location that is:
      i. Within 6 feet of the locking mechanism,
      ii. Accessible to all household members,
      iii. Reviewed with persons residing in or receiving care in the setting, and
      iv. Identified on the emergency evacuation plan, specified in subsection (5).

9. The address for the setting is posted and visible from the street, or the local emergency response team, such as the local fire department, is notified of the location of the setting in writing, with a copy of this notification maintained in the setting.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

R6-18-709. Pool Requirements

A. For settings with a pool that is deeper than 4 feet, the care provider shall ensure the following safety equipment is available within the pool enclosure:
1. A shepherd's crook attached to a pole; and
2. A ring buoy attached to a rope that measures half the distance across the pool plus 10 feet.

B. A care provider who has a pool on the premises and provides services to a child age 5 and under or to an individual with developmental disabilities:
1. Shall ensure the pool is fenced with an enclosure that meets the following requirements:
   a. The exterior side of the fence is at least 5 feet high;
   b. If the fence is chain link, the mesh measures less than 1 3/4 inches horizontally;
   c. If the fence is constructed of vertical bars or wooden slats, the openings between bars or slats measure less than 4 inches;
   d. The exterior side of the fence is free of hand holds or foot holds or other means that could be used to climb over the fence;
   e. Gates for the fence are self-closing and self-latching and open out or away from the pool.
   f. The gate latch is at least 54" above the ground and is equipped with a key or combination lock.
   g. The gate to the enclosure is locked, except when there is an adult within the enclosure to supervise the pool and spa area.
2. Shall ensure the following, if the home or building used to provide care or supervision constitutes part of the enclosure:
   a. The enclosure does not interfere with safe egress from the setting.
   b. A door from the setting does not open within the pool enclosure.
   c. A window from the setting and located in a room that is designated as a bedroom for an individual receiving care is not positioned within the pool enclosure.
   d. Other windows from the setting and within the pool enclosure are permanently secured to open no more than 4 inches.

Historical Note

New Section made by exempt rulemaking at 11 A.A.R. 3501, effective October 24, 2005 (05-3).

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Office of Licensing, Certification, and Regulation

STATUTES

A.R.S. § 36-554. Powers and duties of director

A. The director shall:

1. Be responsible for developing and annually revising a statewide plan and initiating statewide programs and services for persons with developmental disabilities in locations where the programs and services are necessary, which shall include:

(a) Child services, which may include infant stimulation, developmental training for pre-school children and special education at Arizona training program facilities for school-age, children with developmental disabilities residing at Arizona training program facilities who do not attend public school.

(b) Adult services, in coordination with the vocational rehabilitation services of the department, which may include but not be limited to job training and training and adjustment services, job development and placement, sheltered employment and other nonvocational day activity services for adults.

(c) Residential services, including various community residential settings, Arizona training program facilities and state operated service centers which provide varying levels of supervision in accordance with the developmental disability levels of the persons placed at such settings, facilities or centers. The department shall contract with private profit or nonprofit agencies to provide appropriate residential settings for persons with developmental disabilities which provide for regular assistance and supervision of such persons and which provide varied developmental disability programs and services on or near the community residential setting.

(d) Resource services, which may include comprehensive evaluation services, information and referral services and outpatient rehabilitation and social development services. The department in providing developmental disability programs and services shall whenever practicable utilize qualified private contractors. In selecting private contractors, the department shall utilize those contractors which can clearly demonstrate an ability to perform such contract in accordance with standards and specifications adopted by the department.

2. Establish standards, provide technical assistance, and supervise all developmental disability programs and services operated by or supported by the department.

3. Coordinate the planning and implementation of developmental disability programs and activities, institutional and community, of all state agencies, provided this shall not be construed as depriving other state agencies of jurisdiction over, or the right to plan for, control, and operate programs that pertain to developmental disability programs but that fall within the primary jurisdiction of such other state agencies.

4. Periodically assess the effectiveness of the quality assurance system as required by 42 Code of Federal Regulations section 434.34 as it pertains to developmental disabilities programs.

5. License community residential settings pursuant to this chapter.

6. Develop rules establishing a procedure for handling complaints about community residential settings.

7. Inform in writing every parent or guardian of a client with a developmental disability residing at or transferring to a community residential setting of the complaint handling procedure.

8. As new community residential settings are developed over a period of time, reduce the clientele at Arizona training program facilities to those persons with developmental disabilities who are required to be in Arizona training program facilities because the community lacks an appropriate community residential setting that meets their individual needs or whose parents or legal guardians want them in an Arizona training program facility.

9. In conjunction with the division, individuals with developmental disabilities and their families, advocates, community members and service providers, develop, enhance and support environments that enable individuals with developmental disabilities to achieve and maintain physical well-being, personal and professional satisfaction, participation as family and community members and safety from abuse and exploitation.

10. Do all other things reasonably necessary and proper to carry out the duties and the provisions of this chapter.

11. Adopt rules regarding procurement procedures similar to those found in title 41, chapter 23.

B. Programs and services offered pursuant to subsection A, paragraph 1 of this section shall be provided in cooperation with public and private resources that can best meet the needs of persons with developmental disabilities and that are located in the community and in proximity to the persons being served.

C. The director may:

1. Establish nonresidential outpatient programs for placement, evaluation, care, treatment and training of persons with developmental disabilities residing in the community who are not eligible for public school programs, and who do not have access to other state supported programs providing equivalent services.

2. Develop cooperative programs with other state departments and agencies, political subdivisions of the state, and private agencies concerned with and providing services for persons with developmental disabilities.

3. Contract for the purchase of services with other state and local governmental or private agencies. Such agencies are authorized to accept and expend funds received pursuant to such contracts.

4. Stimulate research by public and private agencies, institutions of higher learning, and hospitals in the interest of the prevention of developmental disabilities and improved methods of care and training for persons with developmental disabilities.

5. Apply for, accept, receive, hold in trust or use in accordance with the terms of the grant or agreement any public or private funds or properties, real or personal, granted or transferred to it for any purpose authorized by this chapter.

6. Make and amend rules from time to time as deemed necessary for the proper administration of programs and services for the treatment of persons with developmental disabilities, for the admission of persons with developmental disabilities to the programs and services and to carry out the purposes of this chapter.

A.R.S. § 36-592. Adult developmental homes; child developmental foster homes; secure facilities; license application; investigation and operation

A. An applicant for an adult developmental home, child developmental foster home or secure facility license shall submit an application on a form prescribed by the department.

B. Before issuing a license to an applicant the department shall investigate the activities and standards of care within the setting, the financial stability of the applicant, the character and training of the applicant and the adequacy of services. The department by rule shall establish standards for licensure.

A.R.S. § 41-1954. Powers and duties

A. In addition to the powers and duties of the agencies listed in section 41-1953, subsection E, the department shall:

1. Administer the following services:
(a) Employment services, including manpower programs and work training, field operations, technical services, unemployment compensation, community work and training and other related functions in furtherance of programs under the social security act, as amended, the Wagner-Peyser act, as amended, the federal unemployment tax act, as amended, 33 United States Code, the family support act of 1988 (P.L. 100-485) and other related federal acts and titles.
(b) Individual and family services, which shall include a section on aging, services to children, youth and adults and other related functions in furtherance of social service programs under the social security act, as amended, title IV, except parts B and E, grants to states for aid and services to needy families with children and for child-welfare services, title XX, grants to states for services, the older Americans act, as amended, the family support act of 1988 (P.L. 100-485) and other related federal acts and titles.
(c) Income maintenance services, including categorical assistance programs, special services unit, child support collection services, establishment of paternity services, maintenance and operation of a state case registry of child support orders, a state directory of new hires, a support payment clearinghouse and other related functions in furtherance of programs under the social security act, title IV, grants to states for aid and services to needy families with children and for child-welfare services, title XX, grants to states for services, as amended, and other related federal acts and titles.
(d) Rehabilitation services, including vocational rehabilitation services and sections for the blind and visually impaired, communication disorders, correctional rehabilitation and other related functions in furtherance of programs under the vocational rehabilitation act, as amended, the Randolph-Sheppard act, as amended, and other related federal acts and titles.
(e) Administrative services, including the coordination of program evaluation and research, interagency program coordination and in-service training, planning, grants, development and management, information, legislative liaison, budget, licensing and other related functions.
(f) Manpower planning, including a state manpower planning council for the purposes of the federal-state-local cooperative manpower planning system and other related functions in furtherance of programs under the comprehensive employment and training act of 1973, as amended, and other related federal acts and titles.
(g) Economic opportunity services, including the furtherance of programs prescribed under the economic opportunity act of 1967, as amended, and other related federal acts and titles.
(h) Intellectual disability and other developmental disability programs, with emphasis on referral and purchase of services. The program shall include educational, rehabilitation, treatment and training services and other related functions in furtherance of programs under the developmental disabilities services and facilities construction act, Public Law 91-517, and other related federal acts and titles.
(i) Nonmedical home and community based services and functions, including department designated case management, housekeeping services, chore services, home health aid, personal care, visiting nurse services, adult day care or adult day health, respite sitter care, attendant care, home delivered meals and other related services and functions.

2. Provide a coordinated system of initial intake, screening, evaluation and referral of persons served by the department.
3. Adopt rules it deems necessary or desirable to further the objectives and programs of the department.

ARIZONA DEPARTMENT OF ECONOMIC SECURITY (F-16-0105)

Title 6, Chapter 18, Article 1, Definitions; Article 7, Life-Safety Inspection

GOVERNOR'S REGULATORY REVIEW COUNCIL
ANALYSIS OF FIVE-YEAR REVIEW REPORT

MEETING DATE: February 2, 2016 **AGENDA ITEM: D-4**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Kara Kerker and Chris Kleminich

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF PUBLIC SAFETY (F-16-0109)**
Title 13, Chapter 6, Article 1, General Provisions; Article 2, Agency Licenses; Article 3, Registration Certificates; Article 4, Appeals; Complaints, Records; Article 5, Uniforms and Vehicles; Article 6, Training; Article 7, Firearms-Safety Training Instructors

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COMMENTS ON THE FIVE-YEAR-REVIEW REPORT

Purpose of the Agency and Number of Rules in the Report

The purpose of the Arizona Department of Public Safety (Department) is to prevent crime, apprehend violators, train law enforcement personnel and promote public safety. Laws 2012, Ch. 315, § 3. The Department is responsible for creating and coordinating services for use by local law enforcement agencies in protecting the public safety. A.R.S. § 41-1711(A).

This five-year-review report covers thirty rules in seven articles in A.A.C. Title 13, Chapter 6, that relate to security guard licensing and training requirements.

Article Contents, Including the Subject Matter of Each Rule in the Report

Article 1 contains five rules, related to general provisions, that address definitions; general license requirements; fees; identification cards; and time-frames for making license and registration determinations.

Article 2 contains seven rules, related to agency licenses, that address applications for agency licenses; issuance of an agency license; agency license renewal; branch office certificates; change of the qualifying party; restructure of an agency; and business names.

Article 3 contains four rules, related to registration certificates, that address applications for registration certificates; renewal of registration certificates; lost or stolen registration certificates or identification cards; and change in the name of a registrant.

Article 4 contains four rules, related to appeals, complaints, and records, that address denial of an agency license or registration certificate; probation of an agency licensee or registrant; employee and business records; and complaints.

Article 5 contains three rules, related to uniforms and vehicles, that address uniforms, badges, and insignia; business attire and plain clothes; and vehicle markings, emblems, and insignia.

Article 6 contains three rules, related to training, that address security guard pre-assignment training; security guard refresher training; and armed security guard pre-assignment and refresher training.

Article 7 contains four rules, related to firearms-safety training instructors, that address qualifications of a firearms-safety instructor; application for certification as a firearms-safety instructor; firearms-safety instructor certification renewal; and requirements of a firearms-safety instructor.

Year that Each Rule was Last Amended or Newly Made

All of the rules were newly made on September 9, 2006.

Proposed Action

The Department plans to amend sections 101, 102, 103, 105, 202, 203, 204, 301, 401, 403, 501, and 704. The Department anticipates submitting a rulemaking to Council by July 1, 2017.

Summary of Reasons for the Proposed Action

The Department indicates that the rules should be amended to improve clarity, conciseness, understandability, consistency with statute, and effectiveness.

Exemption or Request and Approval for Exception from the Moratorium

The Department has notified staff that, in the event a moratorium is resstablished, a request for an exception from the moratorium will be sought.

Substantive or Procedural Concerns

None.

Analysis of the agency's report pursuant to criteria in A.R.S. § 41-1056 and R1-6-301:

1. **<u>Has the agency certified that it is in compliance with A.R.S. § 41-1091?</u>**

Yes. The Department has certified its compliance with A.R.S. § 41-1091.

2. <u>Has the agency analyzed the rules' effectiveness in achieving their objectives?</u>

Yes. The Department indicates that all of the rules, except sections 102, 103, 202, 203, 204, 301, 403, 501, and 704, are effective in achieving their objectives. The Department proposes the following changes to improve effectiveness:

- Amend section 102(F) to allow applications and fees to be submitted electronically through Department approved vendors.
- Amend section 102(G) by prohibiting photocopied signatures.
- Amend section 103 by:
    - Specifying a penalty for a late application to renew a security guard registration, consistent with the renewal of an agency license and resident manager license;
    - Removing reference to fingerprinting and digital photographing in subsections (A)(18) and (C), as the Department no longer performs these services;
    - Removing cash payment in subsection (D) and allowing for electronic payment and electronic application options; and
    - Adding the information from R13-6-202(H) to this rule to consolidate all information on fees.
- Amend section 202 by:
    - Moving subsection (H) to section 103 to consolidate all information on fees; and
    - Indicating in subsection (A) that a licensee that has an out-of-state address on an insurance certificate shall provide a certificate that indicates that the description of operations that the insurance is for security guard operations in Arizona.
- Add language to section 203 that allows for the applicant to request to pick up the license at the Department's office in Phoenix, and, if no request is made, the Department shall send the license to the applicant's mailing address; refer to R13-6-202(C).
- Include the telephone number for the branch office notice requirement in section 204.
- Amend section 301 by requiring military members to provide any and all discharge documents with the application to verify the person's eligibility under A.R.S. § 32-2622(B)(4).
- Include the requirement for the qualifying party to maintain documentation of all Department-required training received by the individuals specified in section 403.
- Provide for a procedure in section 501 for requesting an exemption, made available only in offices or businesses that generally are not open to the public, from some of the uniform requirements.
- Add the make, model, and serial number of each weapon the firearms-safety instructor is successfully trained in using to section 704(3).

3. <u>Has the agency received any written criticisms of the rules during the last five years, including any written analysis questioning whether the rules are based on valid scientific or reliable principles or methods?</u>

No. The Department notes that it has not received any written criticisms of the rules during the last five years.

4. <u>Has the agency analyzed whether the rules are authorized by statute?</u>

Yes. The Department cites general statutory authority for all of the rules reviewed under A.R.S. § 41-1713(A)(4), which states that the Director, as administrative head of the Department, shall make rules necessary for the operation of the Department.

A.R.S. § 32-2602(A) requires the Director to administer A.R.S. Title 32, Professions and Occupations, Chapter 26, Security Guards (Chapter 26). The Department cites to A.R.S. § 32-2602(D) as specific statutory authority for 13 A.A.C. 6, which states that the Department "shall adopt and enforce rules that are not in conflict with the laws of this state and that are necessary to enforce this chapter [Chapter 26]."

The Department cites to A.R.S. Title 41, State Government, Chapter 6, Administrative Procedure, Article 7.1, Licensing Timeframes as specific authority for the licensure time frames outlined in Rule 105.

The Department cites A.R.S. § 32-2607(A) as specific authority for charging fees found in Articles 1, 2, 3, 6 which states "[t]he [D]epartment shall charge and collect reasonable fees as determined by the [D]irector to cover the operational and equipment costs of regulating the security guard industry."

Additionally, the Department cites to A.R.S. § 32-2633 as specific authority for the identification cards referenced in Articles 1, 2, and 3, which requires the Department to determine the size and design of identification cards, to include the information listed on each identification card issued, and to issue identification cards to a holder of a license or registration certificate.

The Department cites to several statutes requiring a person or agency to be licensed in order to engage in security guard activities and outlines the requirements for each person or agency to maintain licensure. Most notably, the Department cites to A.R.S. § 32-2614 as specific authority for Article 2, which gives the Department the authority to issue licenses and identification cards to agencies that successfully comply with Chapter 26 and A.R.S. 32-2624(A) as specific authority for Article 3, which gives the Department the authority to issue registration certificates and identification cards to applicants for security guard who successfully comply with Chapter 26.

The Department cites to A.R.S. §§ 32-2612, 32-2640, and 32-2641 as specific authority for Article 4. A.R.S. §§ 32-2612(C) allows the Department to deny an agency license if the Department determines that the applicant is unfit based on a conviction, citation, or encounter with law enforcement for a statutory violation. A.R.S. § 32-2640 further allows the Department to deny the issuance or renewal of an agency license for the various reasons specified in the statute. A.R.S. § 32-2641 outlines the grounds under which the Department or Director may refuse to issue an identification card or registration certificate to an individual applying for a security guard registration certificate and/or identification card for the various reasons specified in the statute. Additionally, A.R.S. § 32-2639 allows the Department to investigate any licensee, registrant, associate, or employee if licensee, registrant, associate, or employee advertises or

performs services that require licensure pursuant to Chapter 26 or is engaged in activities that do not comply with Chapter 26.

The Department cites to A.R.S. § 32-2635 as specific statutory authority for Article 5, which states that the particular type of uniform or insignia for a security guard or armed security guard shall be subject to approval according to rules adopted by the Department.

The Department cites to A.R.S. § 32-2632 as specific statutory authority for Article 6, which requires the Department to establish the required training curriculum for pre-assignment, and renewal training.

The Department cites to A.R.S. § 32-2632(E) as specific statutory authority for Article 7, which states "[t]he [D]epartment shall adopt rules for . . . [c]ertification of firearms instructors who provide the firearms training . . . and [a] firearms training curriculum.

5. <u>Has the agency analyzed the rules' consistency with other rules and statutes?</u>

Yes. The Department indicates that all of the rules reviewed are consistent with other rules and statutes, except for sections 101, 202, 204, 401, and 403. The Department proposes the following changes to improve consistency with statutes and other rules:

- Correct the citation in section 101 from A.R.S. § 13-3101(A)(6) to A.R.S. § 13-3101(A)(7) for the "prohibited possessor" definition.
- Section 202(G), which requires the qualifying party to notify the Department within 15 days of a change of address of the principal office, is inconsistent with A.R.S. § 32-2614(D), which allows 30 days to provide the notice, and should be updated to reflect the statute.
- Section 204(E), which requires the qualifying party to notify the Department within 15 days of a change of address of a branch office, is inconsistent with A.R.S. § 32-2614(D), which allows 30 days to provide the notice, and should be updated to reflect the statute.
- The Department does not have statutory authority for section 401(G), which requires an applicant who is denied a license or certification to wait one year before reapplying. The authorizing statutes only refer to revoking a license or certification and does not specifically use the term "denied." The Department intends to amend the rule to delete the one-year waiting period for denied licenses and certifications.
- Include a new section in section 403 that requires a qualifying party to maintain adequate records on a client containing at lease sufficient information to identify the client, the dates of service, the fee for service, and the payments for service in accordance with A.R.S. § 32-2601(23)(D).

6. <u>Has the agency analyzed the current enforcement status of the rules?</u>

The Department indicates that it enforces the rules to the extent that they are consistent with statute. Rules that are inconsistent with statute are enforced according to statute.

7. Has the agency analyzed whether the rules are clear, concise, and understandable?

Yes. The Department indicates that all the rules are clear, concise, and understandable, except for sections 101, 105, 202, and 403. The Department has proposed the following changes to improve the clarity, conciseness, and understandability of these rules:

- Amend "classifiable fingerprints" in section 101 by removing the date reference to Form FD-258 (5-11-99) and replacing it with "issued on or after 5-11-99".
- Amend section 105 by specifying that the number of days in the rule is defined as business days.
- Remove "renewal" from section 202(C), as section 203 deals with renewals. Additionally, remove the information in subsection (H) and move it to section 103 to consolidate all information related to fees.
- Amend section 403 as identified above[1] for clarity.

8. Stringency of the Rules:

a. Are the rules more stringent than corresponding federal law?

The Department indicates that no federal laws directly correspond to the rules.

b. If so, is there statutory authority to exceed the requirements of federal law?

Not applicable.

9. For rules adopted after July 29, 2010:

a. Do the rules require issuance of a regulatory permit, license or agency authorization?

The rules have not been amended since they were newly made in 2006, meaning that A.R.S. § 41-1037 is not applicable.

b. If so, are the general permit requirements of A.R.S. § 41-1037 met or does an exception apply?

Not applicable.

[1] See Section 5 of this memo for proposed changes to Rule 403.

10. Has the agency indicated whether it completed the course of action identified in the previous five-year-review report?

Yes. The Department indicates that in the five-year-review report approved by the Council in 2011, the Department planned to amend sections 103, 105, 202, 204, 401, 403, 501, 503, 701, 702, and 703 by July 30, 2012. The Department did not complete this course of action due to the continuation of the moratorium.

11. Has the agency included a proposed course of action?

Yes, as indicated above, the Department plans to amend the rules with identified issues upon the expiration of Executive Order 2015-01. The Department anticipates submitting a rulemaking to Council by July 1, 2017.

Upon further review of section 503, the Department has determined that the issue identified with the rule in 2011 is sufficiently covered by statute and no longer plans to amend the rule.

Conclusion

The report meets the requirements of A.R.S. § 41-1056 and R1-6-301. This analyst recommends the report be approved.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: D-4**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF PUBLIC SAFETY (F-16-0109)**
Title 13, Chapter 6, Article 1, General Provisions; Article 2, Agency Licenses; Article 3, Registration Certificates; Article 4, Appeals; Complaints, Records; Article 5, Uniforms and Vehicles; Article 6, Training; Article 7, Firearms-Safety Training Instructors

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I reviewed the five-year-review report's economic, small business, and consumer impact comparison for compliance with A.R.S. § 41-1056 and make the following comments. These comments should not be interpreted as an endorsement of the data or methodology used by the agency in its economic impact analysis.

1. Economic Impact Comparison

The economic, small business, and consumer impact statement (EIS) from the most recent rulemaking was available for all of the rules contained in the five-year-review report. The economic impact information provided by the Department fulfills the criteria of A.R.S. § 41-1056.

The Department believes the rules, as enacted in 2006, has been generally effective in accomplishing their objectives, but are no longer sufficient for the Department's needs. The Department believes that the effectiveness of the following rules could be improved: R13-6-102, R13-6-103 (impacts R13-5-104, R13-6-201, R13-6-301, R13-6-302, R13-6-303, R13-6-304, R13-6-702, and R13-6-703), R13-6-202 through R13-6-204, R13-6-403, R13-6-501 and R13-6-704.

The Department licensed 308 security guard agencies and certified 32,442 security guards in FY 2015. There were 84 registered resident managers of security guard agencies, 182 registered associates, and 312 certified firearms-safety training instructors in FY 2015. During FY 2015, the Department received 16,787 applications related to the security guard industry. The Department collected $1,045,725 in fees related to regulating the security guard industry. It collected an additional $356,774, which was forwarded to the FBI for criminal background

checks of applicants. As required by A.R.S. § 32-2607(A) regulation of the security guard industry is self-supporting. During FY 2015, the Department received 383 complaints related to the security guard industry. Results of the complaints generated 260 license suspensions, three letters of concern, two citations, and eight cease-and-desist orders.

2. Has the agency determined that the rules impose the least burden and costs to persons regulated by the rules?

The Department indicates that the rules will impose the least burden and costs on stakeholders once the rules are amended to improve effectiveness and understandability.

3. Was an analysis submitted to the agency under A.R.S. § 41-1056(A)(7)?

No analysis was submitted to the Department by another person that compares the rules' impact on this state's business competitiveness to the impact on businesses in other states under A.R.S. § 41-1056(A)(7).

4. Conclusion

After review, the staff concludes that the report complies with A.R.S. § 41-1056 and recommends approval.

ARIZONA DEPARTMENT OF PUBLIC SAFETY

2102 WEST ENCANTO BLVD. P.O. BOX 6638 PHOENIX, ARIZONA 85005-6638 (602) 223-2000

"Courteous Vigilance"

DOUGLAS A. DUCEY Governor
FRANK L. MILSTEAD Director

November 16, 2015

Mr. Bret Parke, Chair
Governor's Regulatory Review Council
100 N 15th Ave Ste 402
Phoenix, AZ 85007

Dear Mr. Parke:

As required by Arizona Revised Statute §41-1056, the Department of Public Safety submits for your approval a five-year review report of its rules listed in Title 13 Public Safety, Chapter 6 Security Guards.

The Department reviewed Chapter 6, Articles 1 through 7 totaling thirty rules.

The Department does not intend for any of the rules to expire under A.R.S. § 41-1056(J).

The Department does not have any active Substantive Policy Statements for this chapter and therefore is in compliance with A.R.S. §41-1091.

If you have any questions regarding this report, please contact Mr. Paul Swietek, Police Planner at (602) 223-2049.

Thank you for your consideration.

Sincerely,

Frank L. Milstead, Colonel
Director

PS/ps

Enclosure

ARIZONA DEPARTMENT OF PUBLIC SAFETY

ARIZONA ADMINISTRATIVE CODE FIVE YEAR REVIEW REPORT

TITLE 13 – PUBLIC SAFETY

CHAPTER 6 – SECURITY GUARD

ARTICLES

1 – GENERAL PROVISIONS
2 – AGENCY LICENSES
3 – REGISTRATION CERTIFICATES
4 – APPEALS; COMPLAINTS; RECORDS
5 – UNIFORMS AND VEHICLES
6 – TRAINING
7 – FIREARMS-SAFETY TRAINING INSTRUCTORS

Issued: November 16, 2015
Revised: December 29, 2015

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INTRODUCTION

The Department of Public Safety, which is created by A.R.S. § 41-1711, is charged with, among other things, preventing crime and protecting the public. This is accomplished, in part, by enforcing statutes relating to security guards.

Included in this report is a review of the following thirty rules:

- R13-6-101 Definitions
- R13-6-102 General License Requirements
- R13-6-103 Fees
- R13-6-104 Identification Cards
- R13-6-105 Time-frames for Making Licensing and Registration Determinations
- R13-6-201 Application for an Agency License
- R13-6-202 Issuance of an Agency License
- R13-6-203 Agency License Renewal
- R13-6-204 Branch Office Certificate
- R13-6-205 Change of Qualifying Party
- R13-6-206 Restructure of an Agency
- R13-6-207 Business Name
- R13-6-301 Application for Registration Certificate
- R13-6-302 Renewal of Registration Certificate
- R13-6-303 Lost or Stolen Registration Certificate or Identification Card
- R13-6-304 Change in Name of Registrant
- R13-6-401 Denial of Agency License or Registration Certificate
- R13-6-402 Probation of Agency Licensee or Registrant
- R13-6-403 Employee and Business Records
- R13-6-404 Complaints

- R13-6-501 Uniforms, Badges, and Insignia
- R13-6-502 Business Attire and Plain Clothes
- R13-6-503 Vehicle Markings, Emblems, and Insignia
- R13-6-601 Security Guard Pre-assignment Training
- R13-6-602 Security Guard Refresher Training
- R13-6-603 Armed Security Guard Pre-assignment and Refresher Training
- R13-6-701 Qualifications of a Firearms-safety Instructor
- R13-6-702 Application for Certification as a Firearms-safety Instructor
- R13-6-703 Firearms-safety Instructor Certification Renewal
- R13-6-704 Requirements of a Firearms-safety Instructor

INFORMATION IDENTICAL FOR A GROUP OF RULES

Under A.A.C. R1-6-301(B), the following information is provided only once because it is identical for a group of rules:

1. Authorization of the rule by existing statutes

The Department's general authority is authorized under:

- A.R.S. § 41-1713(A)(4) states the Department may make rules necessary for the operation of the Department.

The Department's specific authority is authorized under:

- A.R.S. § 32-2602(D) which provides that the Department shall adopt and enforce rules that are not in conflict with the laws of the state and that are necessary to enforce the statutes relating to security guards.

The Department has additional statutory authority listed under Item 1 in the individual rule analysis section.

3. Effectiveness of the Rule in Achieving the Objective

The Department believes the rules are generally effective in accomplishing their objectives. However, as indicated in the Analysis of Individual Rules, the Department believes the effectiveness of the following rules could be improved: R13-6-102, R13-6-103 (impacts R13-5-104, R13-6-201, R13-6-301, R13-6-302, R13-6-303, R13-6-304, R13-6-702, and R13-6-703), R13-6-202 through R13-6-204, R13-6-301, R13-6-403, R13-6-501 and R13-6-704.

4. Consistency of the Rule with State and Federal Statues or Other Rules

The Department determined that the rules are consistent with statutes and other rules with the exception of R13-6-101, R13-6-104, R13-6-201, R13-6-202, R13-6-204, R13-6-301, R13-6-302, R13-6-303, R13-6-304, R13-6-401, R13-6-403, R13-6-702 and R13-6-703. There are no applicable federal statutes.

5. Agency Enforcement Policy

The Department enforces the rules to the extent that they are consistent with statute. Rules that are inconsistent with statute are enforced according to statute.

6. Clarity, Conciseness, and Understandability of the Rule

The rules are clear, concise, and understandable with the exception of R13-6-101, R13-6-105, R13-6-202, and R13-6-403.

7. Summary of Written Criticisms of the Rules Received in the Last Five Years

The Department has received no written criticisms of the rules in the last five years.

8. A Review of the Economic Impact Statement (EIS) Prepared on the Last Making of the Rule.

As indicated in the economic, small business, and consumer impact statement prepared with the 2006 rulemaking, most of the economic impact on the security guard business results from Statutes rather than rule. The Department believes that the statement prepared in 2006 was accurate for the time period but not for today's economy.

The Department currently licenses 308 security guard agencies. This represents a 5.84% increase in the number of licensed agencies since 2011. The Department currently certifies 32,442 security guards, 3,024 of whom are certified to be armed while on the job. The number of certified security guards has increased by 6,780, or 26.42%, and the percentage of certified security guards authorized to be armed while on the job has

decreased by 1,285, or 29.82%. There are currently 84 registered resident managers of security guard agencies, 182 registered associates, and 312 certified firearms-safety training instructors.

During FY 2015, the Department received 16,787 applications related to the security guard industry. The Department believes it acted within its time frames on all the applications. To determine its compliance with the timeframes, a random manual sampling was used because the current computerized system could not provide usable results. Records were manually evaluated and the required time frame was met for each application. The Department collected $1,045,725 in fees related to regulating the security guard industry. It collected an additional $356,774, which was forwarded to the FBI for criminal background checks of applicants. As required by A.R.S. § 32-2607(A) regulation of the security guard industry is self-supporting.

During FY 2015, the Department received 383 complaints related to the security guard industry. Results of the complaints generated 260 license suspensions, three letters of concern, two citations, one for compliance, and eight cease-and-desist orders.

The Licensing Unit continues to experience an increase in the costs of doing business. The unit is using outdated technology software that negatively impacts the efficiency of processing applications. Employee-related expenses (ERE) continue to moderately increase annually. The Unit is currently using volunteers and intermittent employees as well as overtime for full-time employees to meet its licensing timeframes. Without these stopgaps, licensing timeframes are likely to increase by upwards of four weeks over the existing 15-day timeframe. The last fee increase was in 2006 and with expenses increasing by the time of the rulemaking (a period of 11 years), the Unit is anticipating a need for a fee increase.

9. Analysis of the State's Business Competitiveness as Compared to Other States

The Department has not received any business comparative analysis by any person regarding the rules' impact on this state's business competitiveness as compared to the competitiveness of business in other states.

10. Agency Stated Course of Action from the Previous Five-Year Report

The Department's previous report was approved by the Council in 2011. In the report, the Department indicated it intended to amend rules R13-6-103, R13-6-105, R13-6-202, R13-6-204, R13-6-401, R13-6-403, R13-6-501, and R13-6-503 upon the expiration of the Governor's rulemaking moratorium. As the Council is aware, Governor Brewer's moratorium did not expire in 2011 as anticipated and was later renewed by Governor Ducey. The Department still intends to amend these rules with the exception of R13-6-503 upon expiration of the rulemaking moratorium; refer to Item 14 Planned Course of Action. Upon further review of R13-6-503, the Department will not amend the rule as the Department believes the issue of red/blue flashing lights is sufficiently covered by A.R.S. §§ 28-101(4), 28-624 and 28-947(B),(D).

11. Determination of Probably Benefits Outweighing the Probably Costs

The Department determined that the public safety benefits of the rules will outweigh the costs to the State and impose the least burden and cost to the regulated public once the changes identified in this report are made. Most of the economic impact on security guard agencies and security guards results from statutory requirements rather than rule. The Arizona Revised Statutes under Item 1 require that security guard agencies be licensed and security guards and associates be registered. Additionally, the statutes establish the requirements for licensure and registration; require the Department to set fees at an amount that fully recovers the cost of implementing the statutes; designate the information that must be on an identification card; require pre-assignment and refresher training for security guards; require initial and annual continuing firearms-safety instruction for armed security guards; require the Department to establish a firearms-

safety training curriculum; require that firearms-safety instructors be certified by the Department; require that security guard uniforms, badges, and insignia be approved by the Department; and designate 27 separate grounds for discipline.

The economic impact of the rules results from:

- Prescribing a form for initial and renewal applications and the procedure for submitting them,
- Requiring that a denied applicant wait one year before applying again,
- Requiring that an agency maintain personnel records for five years after an individual is no longer employed by the agency, and
- Specifying requirements for uniforms, badges, and insignia.

12. Determination of the Rules' Stringency Against Federal Law

The Department determined that the rules are not more stringent than corresponding federal law as there are no applicable federal laws.

13. Issuance of a Regulatory Permit for Rules Adopted After July 29, 2010, in Compliance with A.R.S. § 41-1037

None of the rules reviewed were adopted or amended after July 29, 2010; therefore, this analysis is not required for these rules.

14. Course of Action for the Rules

The Department intends to amend the following rules: R13-6-101 through R13-6-105, R13-6-201 through R13-6-204, R13-6-301 through R13-6-304, R13-6-401, R13-6-403, R13-6-501 and R13-6-702 through R13-6-704. A rulemaking waiver will be sought, as necessary. The rulemaking will be submitted to Council within one and a half years after the current rulemaking moratorium ends. Because Executive Order 2015-01 is currently scheduled to expire on December 31, 2015, the Department anticipates submitting a rulemaking before July 1, 2017.

ANALYSIS OF INDIVIDUAL RULES

ARTICLE 1 – GENERAL PROVISIONS

R13-6-101. Definitions

2. Objective

The objective of this rule is to clarify the rules by defining words that are used in a manner specific to the rules.

4. Consistency of the Rule with State and Federal Statues or Other Rules

In the *prohibited possessor* definition the correct A.R.S. reference should be § 13-3101(A)(7).

6. Clarity, Conciseness, and Understandability of the Rule

The rule can be made more clear and understandable by amending *classifiable fingerprints* by removing the date reference to Form FD-258 (5-11-99) and replacing it with *issued on or after 5-11-1999*.

R13-6-102. General License Requirements

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. §§ 32-2608, 32-2611, 32-2612, 32-2621, 32-2622, and 32-2632(C).

2. Objective

The objective of this rule is to establish the general requirements for the various licenses relating to security guards and to point applicants for the various licenses to the rule that provides more detailed application information for a specific license.

3. Effectiveness of the Rule in Achieving the Objective

The rule is partially effective. The effectiveness of the rule could be improved by amending Section F to allow for applications and fees to be submitted electronically through DPS-approved vendors. Section G could be improved by not allowing signatures to be photocopied.

R13-6-103. Fees

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. § 32-2607(A).

2. Objective

The objective of this rule is to establish the fees that the Department collects for its various licensing activities relating to security guards.

3. Effectiveness of the Rule in Achieving the Objective

The rule is partially effective. The effectiveness of the rule could be improved by specifying a penalty for a late application to renew a security guard registration. This amendment makes the renewal of a security guard registration consistent with renewal of an agency license and resident manager license. The rule will be improved by removing Paragraph C as the Department no longer performs fingerprinting and digital photo services. The rule will be improved by amending Section D to remove cash payment and to allow for electronic payment and electronic application options. R13-6-202(H) should be moved to this rule to consolidate information on fees.

R13-6-104. Identification Cards

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. §§ 32-2614, 32-2624, and 32-2633.

2. Objective

The objective of this rule is to identify the licensees and certificate holders to whom the Department issues an identification card, the information the Department places on an identification card, and the manner in which a licensee or certification holder is required to treat the identification card.

4. Consistency of the Rule with State and Federal Statues or Other Rules

If the rule is amended to remove the fees in Sections D and E (See R13-6-103 Analysis Item #3), then the references to R13-6-103(A)(15) and R13-6-103(A)(14) will need to be removed.

R13-6-105. Time-frames for Making Licensing and Registration Determinations

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. § 41-1072 et seq.

2. Objective

The objective of this rule is to describe the manner and time in which the Department reviews and acts upon a license or registration application.

6. Clarity, Conciseness, and Understandability of the Rule:

The rule can be made more clear and understandable by specifying that the number of days in the rule is defined as business days.

ARTICLE 2 – AGENCY LICENSES

R13-6-201. Application for an Agency License

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2613 and 32-2635.

2. Objective

   The objective of this rule is to provide detail regarding the information required to be submitted by the qualifying party of a security guard agency for which an agency license is sought. If the security guard agency will have a resident manager, information is also provided regarding the information required from the resident manager.

4. Consistency of the Rule with State and Federal Statues or Other Rules

   If the rule is amended to remove the fees (See R13-6-103 Analysis Item #3), then the reference to R13-6-103 will need to be removed. The Secretary of State has a technical error listing this rule as R13-2-201 in the A.A.C.

R13-6-202. Issuance of an Agency License

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2614.

2. Objective

   The objective of this rule is to describe the steps that must be taken by an applicant after the Department provides notice that the applicant's agency license is ready for issuance. The rule also provides information regarding posting, transferring, or surrendering a license.

3. Effectiveness of the Rule in Achieving the Objective

The rule is partially effective. The effectiveness of the rule could be improved for both the liability and workers' compensation insurance required under Section A by indicating that a licensee that has an out-of-state address on an insurance certificate shall provide a certificate that indicates in the *description of operations* that the insurance is for security guard operations in Arizona.

4. Consistency of the Rule with State and Federal Statutes or other Rules

Section G, which requires the qualifying party to notify the Department within 15 days of a change of address of the principal office, is inconsistent with A.R.S. § 32-2614(D) which allows 30 days to provide the notice.

6. Clarity, Conciseness, and Understandability of the Rule

The rule can be made clearer by removing the word *renewal* from Section C as R13-6-203 deals with renewals. The rule can further be made more concise by removing the information in Section H and moving it to R13-6-103.

R13-6-203. Agency License Renewal

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. § 32-2607.

2. Objective

The objective of this rule is to provide information regarding when, how, and by whom an agency license is required to be renewed and the consequences of failing to renew timely.

3. Effectiveness of the Rule in Achieving the Objective

The rule is partially effective. The effectiveness of the rule could be improved if language was added that allowed for the applicant to request to pick up the license at the Department's office in Phoenix and if no request is made, the Department shall send the license to the applicant's mailing address; refer to R13-6-202(C).

R13-6-204. Branch Office Certificate

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. § 32-2617.

2. Objective:

The objective of this rule is to describe the procedure for the qualifying party of a licensed agency to obtain a certificate to operate a branch office and the manner in which a branch office certificate is to be handled.

3. Effectiveness of the Rule in Achieving the Objective

The rule is partially effective. The effectiveness of the rule could be improved if the notice regarding operation of a branch office included the telephone number for the branch office.

4. Consistency of the Rule with State and Federal Statutes or other Rules

Section E, which requires the qualifying party to notify the Department within 15 days of a change of address of a branch office, is inconsistent with A.R.S. § 32-2614(D), which allows 30 days to provide the notice.

R13-6-205. Change of Qualifying Party

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2601(18), 32-2612(B), and 32-2616.

2. Objective

   The objective of this rule is to describe the consequence for a licensed agency if the qualifying party leaves as well as the procedure for obtaining a new qualifying party.

R13-5-206. Restructure of an Agency

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2601(21).

2. Objective

   The objective of this rule is to describe the information that must be submitted to the Department when a licensed agency changes the form in which it does business.

R13-6-207. Business Name

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2613(A)(2) and 32-2636(A)(2).

2. Objective

   The objective of this rule is to protect the public by establishing standards for the name of a licensed agency that minimize confusion or deceit.

ARTICLE 3 – REGISTRATION CERTIFICATES

R13-6-301. Application for Registration Certificate

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2607, 32-2608, 32-2621, 32-2622, and 32-2623.

2. Objective

   The objective of this rule is to establish the procedure and information required to apply for a registration certificate as an associate, security guard, or armed security guard.

3. Effectiveness in the Rule in Achieving the Objective

   The rule is partially effective. The effectiveness of the rule will be improved for armed applications by requiring military members to provide any and all discharge documents with the application to verify the person's eligibility under A.R.S. § 32-2622(B)(4).

4. Consistency of the Rule with State and Federal Statutes or other Rules

   If the rule is amended to remove the fees in Sections A and C (See R13-6-103 Analysis Item 3), then the references to R13-6-103 will need to be removed.

R13-6-302. Renewal of Registration Certificate

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2607, 32-2608, 32-2621, and 32-2623.

2. Objective

   The objective of this rule is to provide information regarding when and how a registration certificate is required to be renewed and the consequences of failing to renew timely.

4. Consistency of the Rule with State and Federal Statutes or other Rules

   If the rule is amended to remove the fees in Section B (See R13-6-103 Analysis Item #3), then the references to R13-6-103 will need to be removed.

R13-6-303. Lost or Stolen Registration Certificate or Identification Card

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2614, 32-2624, and 32-2633.

2. Objective

   The objective of this rule is to describe the procedure for obtaining a new registration certificate or identification card when a previous one is lost or stolen.

4. Consistency of the Rule with State and Federal Statutes or other Rules

   If the rule is amended to remove the fees (See R13-6-103 Analysis Item #3), then the reference to R13-6-103(A)(14) will need to be removed.

R13-6-304. Change in Name of Registrant

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2624.

2. Objective

   The objective of this rule is to describe the procedure for notifying the Department that a registrant's name has changed.

4. Consistency of the Rule with State and Federal Statutes or other Rules

   If the rule is amended to remove the fees in Section B (See R13-6-103 Analysis Item #3), then the references to R13-6-103 will need to be removed.

ARTICLE 4 – APPEALS; COMPLAINTS; RECORDS

R13-6-401. Denial of Agency License or Registration Certificate

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2612, 32-2622, 32-2640, and 32-2641.

2. Objective

   The objective of this rule is to establish the standards used by the Department to decide whether to deny a license or registration certificate to an applicant, the procedure for appealing a denial, and the manner in which the Department handles an appeal.

4. Consistency with statutes and other rules:

   The Department does not have statutory authority for Section G which requires an applicant who is denied a license or certification to wait one year before reapplying. The authorizing statutes only refer to revoking a license or certification and does not specifically use the term *denied*. The Department intends to amend the rule to delete the one-year waiting period for denied licenses and certifications.

R13-6-402. Probation of Agency Licensee or Registrant

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2636.

2. Objective

   The objective of this rule is to describe the circumstances under which the Director may fix a period and terms of probation for a licensee or registrant and the consequences of being on probation.

R13-6-403. Employee and Business Records

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. §§ 32-2601, 32-2632, and 32-2639.

2. Objective

The objective of this rule is to establish that it is the responsibility of the qualifying party to maintain employee and business records, the term for which the records must be maintained, and to whom the records must be disclosed.

3. Effectiveness of the Rule in Achieving the Objective

The rule is partially effective. The effectiveness of the rule could be improved if it included the requirement for the qualifying party to maintain documentation of all DPS-required training received by the individuals specified.

4. Consistency of the Rule with State and Federal Statutes or other Rules

The qualifying party shall maintain adequate records on a client containing at least sufficient information to identify the client, the dates of service, the fee for service and the payments for service in accordance with A.R.S. § 32-2601(23)(D).

6. Clarity, Conciseness, and Understandability of the Rule

The rule can be made clearer by adding a new paragraph that states the qualifying party shall maintain adequate records on a client containing at least sufficient information to identify the client, the dates of service, the fee for the service and the payments for service.

R13-6-404. Complaints

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2602, 32-2636, and 32-2639.

2. Objective

   The objective of this rule is to establish against whom an individual may submit a written complaint and the manner in which the Department handles a submitted complaint.

ARTICLE 5 – UNIFORMS AND VEHICLES

R13-6-501. Uniforms, Badges, and Insignia

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2635 and 32-2636.

2. Objective

   The objective of this rule is to describe the requirements and limitations for the uniform worn by security guards and to establish standards to ensure that a reasonable person does not mistake a security guard for a law enforcement officer.

3. Effectiveness of the Rule in Achieving the Objective

   The rule is partially effective. The effectiveness of the rule could be improved by providing a procedure for requesting an exemption from some of the uniform requirements. The exemption would be available only in offices or businesses that generally are not open to the public.

R13-6-502. Business Attire and Plain Clothes

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2635 and 32-2636.

2. Objective

   The objective of this rule is to indicate that a security guard wearing business attire or plain clothes is forbidden to display a badge.

R13-6-503. Vehicle Markings, Emblems, and Insignia

1. Authorization of the Rule by Existing Statutes

This rule is authorized by A.R.S. § 32-2602(D) and is justified as being relevant to language in A.R.S. § 32-2635 regarding insignia that shall not deceive or confuse the public or be identical with that of any law enforcement officer and the language in A.R.S. § 32-2634 that a security guard shall not possess the authority of a peace officer and A.R.S. § 32-2636(A)(4) and A.R.S. § 28-101(4).

2. Objective

The objective of this rule is to establish standards for markings, emblems, and insignias on a vehicle under the control of a security guard to ensure that a reasonable person does not mistake the vehicle for that of a law enforcement agency or peace officer.

ARTICLE 6 – TRAINING

R13-6-601. Security Guard Pre-assignment Training

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2607, 32-2613, 32-2622, and 32-2632.

2. Objective

   The objective of this rule is to establish minimum standards for the training required before an individual may submit an application for a security guard registration certificate.

R13-6-602. Security Guard Refresher Training

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2632.

2. Objective

   The objective of this rule is to establish minimum standards for the training required before a security guard may submit an application for renewal of the security guard registration certificate.

R13-6-603. Armed Security Guard Pre-assignment and Refresher Training

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. §§ 32-2607, 32-2613, 32-2622, and 32-2632.

2. Objective

   The objective of this rule is to establish minimum standards for the training required of a security guard who uses a firearm within the scope of the security guard's employment.

ARTICLE 7 – FIREARMS-SAFETY TRAINING INSTRUCTORS

R13-6-701. Qualifications of a Firearms-safety Instructor

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2632.

2. Objective

   The objective of this rule is to establish the minimum qualifications for an individual to be certified by the Department as a firearms-safety instructor.

R13-6-702. Application for Certification as a Firearms-safety Instructor

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2632.

2. Objective

   The objective of this rule is to list the information that is required to be submitted to the Department before the Department will certify an individual as a firearms-safety instructor.

4. Consistency of the Rule with State and Federal Statutes or other Rules

   If the rule is amended to remove the fees in Section A (See R13-6-103 Analysis Item 3), then the reference to R13-6-103 will need to be removed.

R13-6-703. Firearms-safety Instructor Certification Renewal

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2632.

2. Objective

   The objective of this rule is to establish standards for obtaining renewal of certification as a firearms-safety instructor.

4. Consistency of the Rule with State and Federal Statutes or other Rules

   If the rule is amended to remove the fees in Section A (See R13-6-103 Analysis Item 3), then the reference to R13-6-103 will need to be removed.

R13-6-704. Requirements of a Firearms-safety Instructor

1. Authorization of the Rule by Existing Statutes

   This rule is authorized by A.R.S. § 32-2632.

2. Objective

   The objective of this rule is to provide limitations on the program provided by a certified firearms-safety instructor and to establish recordkeeping requirements.

3. Effectiveness of the Rule in Achieving the Objective

   The rule is partially effective. The effectiveness of the rule could be improved by adding to Section 3 the make, model, and serial number of each weapon the firearms-safety instructor is successfully trained in using.

ARTICLE 1. GENERAL PROVISIONS

R13-6-101. Definitions

In addition to the definitions in A.R.S. § 32-2601, the following definitions apply to this Chapter:

"Branch office" means a location other than the principal place of business shown on a qualifying party's agency license at which the qualifying party conducts the business of private security guard service.

"Branch office certificate" means a document issued by the Department to a qualifying party that authorizes the qualifying party to conduct the business of private security guard service in this state at a location other than the principal place of business shown on the qualifying party's agency license.

"Classifiable fingerprints" means fingerprint impressions that meet the criteria of the Federal Bureau of Investigation as contained in Form FD-258 (5-11-99), published by the U.S. Government Printing Office. This form is incorporated by reference and available from the Department and the FBI (Attn: Logistical Support Unit, CJIS Division, 1000 Custer Hollow Road, Clarksburg, WV 26306) or online at www.bookstore.gpo.gov. The material incorporated by reference contains no future editions or amendments.

"Corporation" or "domestic corporation" has the same meaning as prescribed in A.R.S. § 10-140.

"Foreign corporation" means a for-profit corporation that is incorporated under a law other than the law of Arizona.

"Limited liability company" means the same as corporation.

"Partnership" means an association of two or more individuals who are co-owners of a for-profit business organized under A.R.S. Title 29, Partnership.

"Probation" means a period during which an agency or individual who has violated A.R.S. Title 32, Chapter 26, is allowed to demonstrate compliance with licensure requirements to avoid having the Department take an administrative action such as suspension or revocation.

"Prohibited possessor" has the same meaning as prescribed in A.R.S. § 13-3101(A)(6).

"Resident manager" means an individual who meets all requirements for an agency license, is a full-time legal resident of Arizona, and is designated by a qualifying party who lives outside of Arizona to manage the agency of the qualifying party.

"Restructure" means to change the name or business form of a licensed agency.

"Sole proprietorship" means a business operated for profit by one owner.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-102. General License Requirements

A. The qualifying party for an agency license and the resident manager, if the agency will have a resident manager, shall meet the requirements under A.R.S. § 32-2612 and submit the application required under R13-6-201.

B. Each partner, officer, director, member, and manager of an agency, except the qualifying party and resident manager, shall meet the requirements under A.R.S. § 32-2622 and submit the application required under R13-6-301.

C. An applicant for a security guard or armed security guard registration certificate shall meet the requirements under A.R.S. § 32-2622 and submit the application required under R13-6-301.

D. An applicant for a firearms-safety training instructor certificate shall meet the requirements under R13-6-701 and submit the application required under R13-6-702.

E. An application form may be obtained in person at the Phoenix Licensing Unit office, by mailing a request to the Arizona DPS Licensing Unit, by telephone, or online at www.azdps.gov/license.
F. A completed application form may be presented in person at the Phoenix Licensing Unit office or by mail to the Arizona DPS Licensing Unit.
G. A blank application form may be duplicated to provide a copy to multiple individuals.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-103. Fees

A. Under the authority provided by A.R.S. § 32-2607, the Department establishes and shall collect the following fees:
   1. Original agency license application, $500;
   2. Agency license, $500;
   3. Application for renewal of an agency license, $500;
   4. Agency restructure, $100;
   5. Penalty for late application for renewal of an agency license, $100;
   6. Resident manager license application, $50;
   7. Resident manager license renewal application, $50;
   8. Penalty for late application for renewal of resident manager license, $10;
   9. Associate or security guard registration certificate, $50;
   10. Associate or security guard registration certificate renewal, $50;
   11. Armed security guard registration certificate, $100;
   12. Armed security guard registration certificate renewal, $100;
   13. Upgrade from security guard to armed security guard registration certificate, $50;
   14. Replacement identification card, $10;
   15. Armed security guard additional employer registration, $10;
   16. Firearms-safety instructor certificate, $50;
   17. Firearms-safety instructor certificate renewal, $50; and
   18. Fingerprint and digital photo fee (optional), $15.
B. In addition to the fees in subsections (A)(1), (A)(3), (A)(6), (A)(7), and (A)(9) through (A)(12), and (A)(16) and (A)(17), the Department shall collect a fee in the amount necessary to cover the cost of non-criminal justice fingerprint processing for a criminal history record check under A.R.S. § 41-1750(J).
C. If applicable equipment and personnel are available, and if an applicant makes a request, Department personnel shall take the applicant's photograph and fingerprints upon submission of an application and payment of the fee listed in subsection (A)(18).
D. A person shall pay a fee by cash, cashier's check, certified check, or money order made payable to the Arizona Department of Public Safety. Upon request, the Department shall accept another means of payment that the Department determines is in the state's interest. All fees are non-refundable except if A.R.S. § 41-1077 applies.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-104. Identification Cards

A. The Department shall provide an identification card to the following licensees and certificate holders:
   1. Qualifying party,
   2. Resident manager,
   3. Associate,
   4. Security guard, and
   5. Armed security guard.
B. The Department shall ensure that an identification card includes the following information about the licensee or certificate holder:
   1. Name,
   2. Photograph,
   3. Physical description,
   4. Date of birth,
   5. License or registration certificate number, and
   6. License or registration certificate expiration date.
C. A licensee or certificate holder shall not assign or transfer an identification card. An identification card is valid only during the effective dates of the license or certificate under which the card is issued.
D. An armed security guard employed by more than one licensee shall pay the fee required under R13-6-103(A)(15) and obtain an identification card for each license under which the armed security guard is employed.
E. If an identification card is lost or stolen, the holder of the card shall notify the Department immediately in writing. The Department shall issue a duplicate identification card upon submission of the fee required under R13-6-103(A)(14).
F. A security guard shall have the security guard's identification card in the security guard's possession and display it when requested by the Department or any peace officer.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-105. Time-frames for Making License and Registration Determinations

A. For the purpose of A.R.S. § 41-1072, the Department establishes the following time-frames for every license issued under this Chapter:
   1. Administrative completeness review time-frame: five days;
   2. Substantive review time-frame: 10 days; and
   3. Overall time-frame: 15 days.
B. An administratively complete application consists of all the information and documents listed in:
   1. R13-6-201 for an agency or resident manager license;
   2. R13-6-301 for a security guard, armed security guard, or associate registration certificate; and
   3. R13-6-702 for a firearms-safety instructor certificate.
C. The administrative completeness review time-frame listed in subsection (A)(1) begins on the date the Department receives an application.
   1. If the application is not administratively complete when received, the Department shall send a notice of deficiency to the applicant. The Department shall include in the deficiency notice a list of the documents and information needed to complete the application.

2. Within 45 days from the date of the deficiency notice, the applicant shall submit to the Department the missing documents and information. The time-frame for the Department to finish the administrative completeness review is suspended from the date of the deficiency notice until the date the Department receives the missing documents and information.
3. The Department and applicant may agree in writing to extend the 45-day period in subsection (C)(2) upon written request by the applicant before the end of the period.
4. If the applicant fails to provide the missing documents and information within the time provided, the Department shall close the applicant's file. If an individual whose file is closed wants to be considered further for licensing, the individual shall submit a new application under R13-6-201, R13-6-301, or R13-6-702.

D. The substantive review time-frame listed in subsection (A)(2) begins on the date the Department determines an application is administratively complete.
1. During the substantive review time-frame, the Department may make one comprehensive written request for additional information. The Department and applicant may agree in writing to allow the Department to make a supplemental request for additional information.
2. The applicant shall submit to the Department the additional information within 45 days from the date of the Department's comprehensive request. The time-frame for the Department to complete the substantive review of the application is suspended from the date of the comprehensive request for additional information until the Department receives the additional information.
3. The Department and applicant may agree in writing to extend the 45-day period in subsection (D)(2) upon written request by the applicant before the end of the period.
4. If the applicant fails to provide the additional information within the time provided, the Department shall close the applicant's file. If an individual whose file is closed wants to be considered further for licensing, the individual shall submit a new application under R13-6-201, R13-6-301, or R13-6-702.
5. When the substantive review is complete, the Department shall inform the applicant in writing of its decision whether to grant or deny a license to the applicant.
   a. The Department shall deny a license if it determines that the applicant does not meet all substantive criteria required by statute and rule. An applicant who is denied a license may appeal the Department's decision under A.R.S. Title 41, Chapter 6, Article 10.
   b. The Department shall grant a license if it determines that the applicant meets all substantive criteria required by statute and rule.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

ARTICLE 2. AGENCY LICENSES

R13-2-201. Application for an Agency License

A. The individual who will be the qualifying party of an agency shall submit an application for an agency license. The qualifying party shall ensure that the application consists of:

1. A complete application form that provides the following information about the applicant:
   a. Full name;
   b. Home address;
   c. Mailing address if different from the home address;
   d. Home and business telephone numbers;
   e. Height, weight, hair and eye colors, sex, and date and place of birth;
   f. Social Security number; and
   g. Any other name by which the applicant has ever been known;
2. Properly completed fingerprint card with classifiable fingerprints of the qualifying party;
3. Fees prescribed in R13-6-103;
4. Legible, notarized copy of a government-issued photo identification document for the qualifying party, such as a state identification card or motor vehicle driver license;
5. Two color photographs of the qualifying party suitable for use in making an identification card such as passport photos or 1" x 1 1/4" facial photos;
6. Exact details as to the character and nature of the qualifying party's required experience under A.R.S. § 32-2612;
7. Proof of U.S. citizenship or legal resident status with authorization to seek employment by providing one document from List A on U.S. Department of Justice Form I-9 or one document from both Lists B and C. The Department shall return original documents to the applicant;
8. The following information about the agency:
   a. The name under which the agency will do business and if required under R13-6-207, a copy of the trade name registration provided by the Arizona Secretary of State's Office;
   b. The principal business address;
   c. The principal business mailing address if different from the principal business address; and
   d. A brief statement describing the nature of the business in which the agency will engage;
9. If the business form is not a sole proprietorship:
   a. Partnership agreement, articles of organization, or articles of incorporation; and
   b. From each partner, officer, director, and member of the agency, an application for registration certificate as described in R13-6-301;
10. If the agency is a foreign corporation, evidence of Arizona Corporation Commission approval to transact business in Arizona;
11. If the agency will maintain a branch office, the notice required under R13-6-204 to obtain a branch office certificate; and
12. The following information required for approval of uniforms, badges, patches, and insignia under A.R.S. § 32-2635:
    a. Color photographs showing the front, back, and both sides of all uniforms;
    b. A full-size color copy or example of the agency patch;
    c. A full-size color copy of the agency badge or, if no badge will be used, a written statement of this fact;
    d. Color photographs showing the front, back, and both sides of agency vehicles;

e. Close-up color photograph of insignia on agency vehicles; and
f. Color photographs showing the front and back of any light bar on agency vehicles.

B. The applicant shall sign the completed application form before a notary public, authorize the Department to obtain information about the applicant from any person or entity, and certify that all information provided is true and correct.

C. If an agency will have a resident manager, the resident manager shall use the application form described under this Section and provide the information required under subsections (A)(1) through (A)(7).

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-202. Issuance of an Agency License

A. The Department shall notify an applicant when the agency license is ready for issuance. The applicant has 90 days from the date of notification to:
1. Pay applicable license fees;
2. Provide a certificate of liability insurance showing at least $100,000 coverage for any one person and $300,000 coverage for any one event and naming the Department as the certificate holder; and
3. If the agency will have employees, provide a certificate of workers' compensation insurance that names the Department as the certificate holder.

B. If an applicant does not provide the required information within 90 days, the Department shall deny the applicant a license and the application fee is forfeited.

C. An applicant for an agency license or renewal may request to pick up the license at the Department's office in Phoenix. If no request is made, the Department shall send the license to the mailing address of the applicant.

D. The Department shall ensure that an agency license contains the name and street address of the licensed business and the number of the license.

E. The qualifying party shall post the agency license in a conspicuous place in the principal business office.

F. The qualifying party shall not assign or transfer the agency license.

G. The qualifying party shall notify the Department in writing within 15 business days of any change of address of the principal office.

H. If the qualifying party surrenders the agency license before the expiration date, the Department shall not refund any portion of the license fee.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-203. Agency License Renewal

A. An agency license expires on the date specified on the license. A qualifying party may submit a renewal application to the Department up to 60 days before the expiration date.

B. The qualifying party shall provide the information required under R13-6-201 with the renewal application.

C. If the qualifying party fails to submit a renewal application before the expiration date, the qualifying party and each partner, member, officer, director, resident manager, and employee

shall cease performing private security guard services subject to regulation by A.R.S. Title 32, Chapter 26.

D. The Department shall not renew an agency license if a renewal application is filed more than 90 days after the expiration date on the agency license. If more than 90 days elapse after the expiration date on the agency license, the former qualifying party may resume providing security guard services only by obtaining a new license under R13-6-201.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-204. Branch Office Certificate

A. A qualifying party shall not operate a branch office unless the qualifying party obtains a branch office certificate. To obtain a branch office certificate, the qualifying party shall provide written notice of the branch office address to the Department.

B. The Department shall ensure that a branch office certificate contains the agency name, license number, expiration date, and address of the branch office.

C. A branch office certificate expires on the date the agency license expires and is renewed when the agency license is renewed.

D. The qualifying party shall post the branch office certificate in a conspicuous place in the branch office.

E. The qualifying party shall notify the Department in writing within 15 business days of any change of address for the branch office.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-205. Change of Qualifying Party

A. Within 15 business days after the qualifying party leaves an agency, each partner, member, officer, director, resident manager, and employee of the agency shall cease performing private security guard services subject to regulation by A.R.S. Title 32, Chapter 26, unless the requirement in subsection (B) is met.

B. Before the agency may resume performing private security guard services, an individual who meets the requirements of a qualifying party shall submit an application for a new agency license under R13-6-201.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-206. Restructure of an Agency

A. If an application for restructure is made at the time of license renewal, the Department shall waive the restructure fee in R13-6-103. If an application for restructure is made at other than the time of license renewal, the agency shall pay the restructure fee.

B. The qualifying party shall submit an application for restructure for the agency. Any new partner, officer, director, or member of the agency shall meet the requirements of A.R.S. § 32-2622 and submit the application required under R13-6-301.

C. To change a sole proprietorship to a partnership, the applicant shall provide a partnership agreement with notarized signatures of the partners.

D. To change a corporation to a partnership, the applicant shall provide documentation of dissolving the corporation and a partnership agreement with notarized signatures of the partners.
E. To change a corporation to a sole proprietorship, the applicant shall provide documentation of dissolving the corporation.
F. To change a sole proprietorship or partnership to a corporation, the applicant shall provide the Articles of Incorporation bearing the approval stamp of the Arizona Corporation Commission. If the change is to a foreign corporation, the applicant shall submit documentation of Arizona Corporation Commission approval for the foreign corporation to transact business in Arizona.
G. To change a partnership to a sole proprietorship, the applicant shall provide documentation of dissolving the partnership.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-207. Business Name

A. The Department shall not grant a license to an agency with a name that includes the words "United States," "Federal," "State of Arizona," "Police," or "Bureau of Investigation," or a name that associates the business with any governmental or law enforcement agency.
B. The Department shall not grant a license to an agency with a name that includes "corporation," "corp.," "incorporated," "Inc.," or "L.L.C." unless corporation papers are filed with the Arizona Corporation Commission or approval to operate as a foreign corporation is obtained from the Arizona Corporation Commission.
C. The Department shall not issue a license to a corporation or limited liability company using a trade name unless the trade name is registered with the Arizona Secretary of State's Office. A sole proprietorship or partnership may, but is not required to, register a trade name.
D. The Department shall not approve a new business name that is similar to the business name of a currently licensed agency.
E. The qualifying party of an agency, resident manager, and agency associates and employees shall do business and present themselves under the name on the agency license.
F. A qualifying party shall do all business under the name and at the address that is on file with the Department and noted on the agency license. The qualifying party shall ensure that both the agency name and license number are listed on all letterhead and business cards and included in advertising and contracts with clients.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

ARTICLE 3. REGISTRATION CERTIFICATES

R13-6-301. Application for Registration Certificate

A. Before a registration certificate application is submitted, the qualifying party of the agency shall:
   1. Determine that the applicant meets the requirements of A.R.S. § 32-2622,
   2. Assess the accuracy of the information provided by the applicant,
   3. Verify proof of U.S citizenship or legal resident status with authorization to seek employment by examining either one document from List A on U.S. Department of Justice Form I-9 or one document from both Lists B and C, and
   4. Ensure that the application includes:
      a. A properly completed application form that provides the following information about the applicant:
         i. Full name;
         ii. Home address;
         iii. Mailing address if different from the home address;
         iv. Home and business telephone numbers;
         v. Social Security number; and
         vi. Height, weight, sex, hair and eye colors, and date and place of birth;
      b. The applicant's signature certifying that the information provided is true and correct;
      c. Two color photographs suitable for use in making an identification card such as passport photos or 1" x 1 1/4" facial photos;
      d. A properly completed fingerprint card with classifiable fingerprints;
      e. The fee required under R13-6-103(A)(9) or (A)(11);
      f. If applicable, the training verification form described in R13-6-601(C); and
      g. If applicable, the firearms-safety training verification form described in R13-6-603(C);

B. An associate, security guard, or armed security guard registrant shall conduct business and be identified under the name used on the application and the registration certificate. The Department shall not approve a fictitious name for use on an associate, security guard, or armed security guard registration certificate.

C. If an applicant for an armed security guard registration is employed by more than one agency, the applicant shall submit an application with the words "Additional Employer" written across the top of the application, submit the fee under R13-6-103, and meet the requirements of this Section. The applicant's additional employer armed security guard registration certificate expires on the date specified on the applicant's initial armed security guard registration certificate.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-302. Renewal of Registration Certificate

A. An associate, security guard, or armed security guard registration certificate expires on the date specified on the registration certificate. An associate, security guard, or armed security guard may submit a renewal application to the Department up to 60 days before the expiration date.

B. The Department shall not renew a registration certificate unless the application is complete and contains:
   1. The information required under R13-6-301(A)(4)(a) through (A)(4)(d);

2. The fee required under R13-6-103(A)(10) or (A)(12);
3. If applicable, the refresher training verification form described in R13-6-602(C); and
4. If applicable, the refresher firearms-safety training verification form described in R13-6-603(C).

C. If an associate, security guard, or armed security guard fails to submit a renewal application before the expiration date, the associate, security guard, or armed security guard shall cease performing private security guard services subject to regulation by A.R.S. Title 32, Chapter 26.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-303. Lost or Stolen Registration Certificate or Identification Card

If a registration certificate or identification card is lost or stolen, the registrant shall notify the Department immediately and request a new registration certificate or identification card and pay the fee under R13-6-103(A)(14).

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-304. Change in Name of Registrant

A. A registrant whose name changes shall notify the Department in writing within 15 days of the name change and may request a new identification card.

B. The registrant shall include with the notice of name change a government-issued photo identification card with the new name or a certified court document recording the name change and the fee under R13-6-103.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

ARTICLE 4. APPEALS; COMPLAINTS; RECORDS

R13-6-401. Denial of Agency License or Registration Certificate

A. The Department shall deny an agency license or registration certificate to an applicant if the Department determines that the applicant does not meet the requirements of A.R.S. § 32-2612 or 32-2622, or there are grounds for denial under A.R.S. § 32-2640 or 32-2641. The Department shall send a notice of denial to the applicant at the address on file with the Department. The Department shall ensure that the notice of denial meets the requirements at A.R.S. § 41-1092.03(A).

B. If a request for hearing is received, the Department shall:
   1. Send a notice of the date and time of the hearing to the applicant,
   2. Set the hearing date at least 30 days after the date of the notice, and
   3. Hold the hearing before the Board.

C. If the applicant does not appear at the scheduled hearing, the Board shall conduct the hearing in the applicant's absence.

D. Within 20 days after conclusion of the hearing, the Board shall prepare findings of fact, conclusions of law, and a recommendation for the Director.

E. Within 30 days after receiving a copy of the recommendation, the Director shall adopt the recommendation in its entirety, modify it, or decide the case upon the record and issue a final decision.

F. The Department shall send a copy of the Director's final decision to the applicant at the address on file with the Department.

G. A denied applicant shall not apply again for at least one year from the date of denial.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-402. Probation of Agency Licensee or Registrant

Upon recommendation of the Board, the Director may fix a period and terms of probation to protect the public health or safety or to rehabilitate or educate a licensee or registrant. A licensee may continue to operate and a registrant may continue to perform the duties of security guard or armed security guard during a period of probation subject to the terms established by the Director.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-403. Employee and Business Records

A. A qualifying party shall maintain at the principal place of business, a file or record of the name, street address, title, employment date, and date of termination of each resident manager, partner, officer, director, member, security guard, and armed security guard for at least five years from the date of termination.

B. The qualifying party shall make the files or records available for inspection by any peace officer, personnel of the Department's licensing section, or other designated representative of the Department.

C. The qualifying party shall submit a copy of the files or records and information pertaining to the files or records to the Department upon request.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-404. Complaints

A. A person may file with the Department a written complaint against a person regulated under this Chapter. After receiving a complaint, the Department shall investigate to determine whether the allegation, if true, amounts to a violation of statute or rule. The Department may forward a copy of the complaint to the person against whom the complaint is made and request that the person respond.

B. At the conclusion of the investigation, the Department shall forward a copy of the complaint to the person against whom the complaint is made and the Director shall take an action listed in A.R.S. § 32-2636.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

ARTICLE 5. UNIFORMS AND VEHICLES

R13-6-501. Uniforms, Badges, and Insignia

A. Uniforms are classified as either traditional or casual.

B. A traditional uniform consists of slacks and a collared, buttoned-down, long- or short-sleeve shirt, which may be worn with or without a tie. A traditional uniform shall have:

1. A patch on each shoulder of the shirt that is a minimum of two inches by three inches in size and bears the name of the agency;
2. A patch or badge on the left breast of the shirt that is a minimum of 1.5 inches by two inches in size and bears the name of the agency; and
3. If the patches and badge do not contain the words "Security" or "Security Guard," the words "Security" or "Security Guard" in letters that are at least 1/2 inch high and directly below each shoulder patch and the breast patch or badge.

C. A casual uniform consists of a polo shirt or T-shirt and either shorts or pants. A casual uniform shall have:

1. A patch on each shoulder of the shirt that is a minimum of two inches by three inches in size and bears the name of the agency;
2. A patch or badge on the left breast of the shirt that is a minimum of 1.5 inches by two inches in size and bears the name of the agency;
3. If the patches and badge do not contain the words "Security" or "Security Guard," the words "Security" or "Security Guard" in letters that are at least 1/2 inch high and directly below each shoulder patch and the breast patch or badge; and
4. A patch across the back of the shirt bearing the words "Security" or "Security Guard" in letters that are at least three inches high.

D. If a security guard wears a jacket or coat with a traditional or casual uniform, the jacket or coat shall have:

1. A patch on each shoulder of the jacket or coat that is a minimum of two inches by three inches in size and bears the name of the agency;
2. A patch or badge on the left breast of the jacket or coat that is a minimum of 1.5 inches by two inches in size and bears the name of the agency;
3. If the patches and badge do not contain the words "Security" or "Security Guard," the words "Security" or "Security Guard" in letters that are at least 1/2 inch high and directly below each shoulder patch and the breast patch or badge; and
4. A patch across the back of the jacket or coat bearing the words "Security" or "Security Guard" in letters that are at least three inches high.

E. The patches on a traditional or casual uniform or security guard jacket or coat may be sewed on, embroidered, or imprinted.

F. The Department shall not approve a uniform, badge, patch, or insignia that bears markings similar to the markings of a law enforcement agency of the federal or state government or a political subdivision of the state.

G. The Department shall not approve a uniform, badge, patch, or insignia that bears the words "Police," "Officer," "Patrolman," "Deputy," "Marshall," "Agent," "Sheriff," or any other word that could cause a reasonable person to confuse a security guard with law enforcement personnel.

H. The Department shall not approve a uniform that consists of the color combinations blue over blue, tan over tan, tan over brown, or black over black. The Department shall determine on an individual basis whether other color combinations may cause a reasonable person to confuse a

security guard with law enforcement personnel. A security guard jacket or coat may be any color if the jacket or coat meets the requirements in this Section.

I. The qualifying party shall ensure that a security guard employed by the security guard agency does not wear a uniform, badge, or patch or use an insignia that is not approved by the Department.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-502. Business Attire and Plain Clothes

A security guard who is wearing business attire or plain clothes rather than a uniform described in R13-5-501 shall not display a badge.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-503. Vehicle Markings, Emblems, and Insignia

A. The qualifying party shall ensure that a vehicle under the control of a security guard agency does not bear markings similar to the vehicle markings used by a law enforcement agency of the federal or state government or a political subdivision of the state.

B. The qualifying party shall ensure that emblems, seals, and other insignia on a vehicle under the control of a security guard agency do not bear the words "Police," "Officer," "Patrolman," "Deputy," "Marshall," "Sheriff," "Agent," or any other word that could cause a reasonable person to confuse the vehicle with a law enforcement vehicle.

C. The qualifying party shall ensure that all markings, emblems, seals, and other insignia displayed on a vehicle under the control of a security guard agency have written approval from the Department before being displayed.

D. A vehicle under the control of a security guard agency is not an authorized emergency vehicle. The operator of a vehicle under the control of a security guard agency shall comply with all traffic-control laws.

E. The qualifying party shall ensure that a vehicle under the control of a security guard agency is not equipped with a siren or bell unless the vehicle is an armored car equipped with a siren as a crime alarm device.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

ARTICLE 6. TRAINING

R13-6-601. Security Guard Pre-assignment Training

A. The qualifying party of a security guard agency shall ensure that a person employed as a security guard by the agency completes eight hours of pre-assignment training before applying for and being granted a security guard registration certificate.

B. The qualifying party shall ensure that the curriculum established by the Department is used for the eight-hour pre-assignment training. The curriculum consists of:
1. Orientation,
2. Criminal law and laws of arrest,
3. Uniform and grooming,
4. Communications,
5. Use of force,
6. General security guard procedures,
7. Crime scene preservation and first response,
8. Ethics, and
9. Emergency response procedures.

C. After a security guard completes the eight-hour pre-assignment training, the qualifying party shall complete a training verification form and:
1. The security guard shall sign the form affirming completion of the training;
2. The instructor shall sign the form affirming that the security guard completed the training;
3. The qualifying party shall sign the form affirming that the security guard met the training requirements of A.R.S. § 32-2632; and
4. The security guard shall submit the form with the application described under R13-6-301.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-602. Security Guard Refresher Training

A. The qualifying party of a security guard agency shall ensure that a person employed as a security guard by the agency completes eight hours of refresher training before renewing the security guard's registration certificate.

B. The qualifying party shall ensure that the curriculum established by the Department is used for the eight-hour refresher training. The curriculum consists of:
1. Criminal law and laws of arrest,
2. Use of force,
3. General security guard procedures,
4. Crime scene preservation and first response,
5. Ethics, and
6. Emergency response procedures.

C. After the security guard completes the eight-hour refresher training, the qualifying party shall complete a training verification form and:
1. The security guard shall sign the form affirming completion of the refresher training;
2. The instructor shall sign the form affirming that the security guard completed the refresher training;
3. The agency qualifying party shall sign the form affirming that the security guard met the refresher training requirements of A.R.S. § 32-2632; and

4. The security guard shall submit the form with the renewal application described in R13-6-302.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-603. Armed Security Guard Pre-assignment and Refresher Training

A. The qualifying party of a security guard agency shall ensure that in addition to completing the pre-assignment training described in R13-6-601 and refresher training described in R13-6-602, a security guard who will use a firearm within the scope of the security guard's employment with the agency completes:

1. Sixteen hours of firearms-safety instruction before being assigned to a position requiring that a firearm be carried, and
2. Eight hours of refresher firearms-safety instruction before renewing the security guard's registration certificate.

B. The qualifying party shall ensure that firearms-safety training is provided by an instructor who is certified by the Department under R13-6-702 and uses the curriculum established by the Department.

C. After the armed security guard completes the sixteen hours of pre-assignment firearms-safety training or the eight hours of refresher firearms-safety training, the qualifying party shall complete a training verification form and:

1. The armed security guard shall sign the form affirming completion of the firearms-safety training;
2. The instructor shall sign the form affirming that the armed security guard completed the firearms-safety training;
3. The agency qualifying party shall sign the form affirming that the armed security guard met the firearm-safety training requirements of A.R.S. § 32-2632; and
4. The armed security guard shall submit the form with the application described in R13-6-301 or R13-6-302.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

ARTICLE 7. FIREARMS-SAFETY TRAINING INSTRUCTORS

R13-6-701. Qualifications of a Firearms-safety Instructor

Only an individual who meets the following qualifications is eligible to be certified by the Department under A.R.S. § 32-2632 as a firearms-safety instructor:

1. Is a resident of this state or a U.S. citizen;
2. Is at least 21 years old;
3. Is not under indictment for and has not been convicted in any jurisdiction of a felony;
4. Does not suffer from mental illness and has not been adjudicated mentally incompetent or committed to a mental institution;
5. Is not unlawfully present in the United States;
6. Is not a prohibited possessor; and
7. Possesses current evidence of completing one of the following firearms-safety training instructor programs:
   a. Arizona Basic Police Firearms Instructor training provided by the Arizona Peace Officers Standards and Training Board;
   b. Police Firearms Instructor Development School provided by the National Rifle Association;
   c. Law Enforcement Security Firearms Instructor Development School provided by the National Rifle Association;
   d. Training provided by the National Rifle Association that results in rating as one of the following:
      i. Pistol Instructor and Personal Protection Instructor,
      ii. Law Enforcement Tactical Handgun Instructor, or
      iii. Law Enforcement Handgun or Shotgun Instructor; or
   e. Firearms Instructor Training Program provided by a federal law enforcement agency.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-702. Application for Certification as a Firearms-safety Instructor

A. To be certified as a firearms-safety instructor, an individual shall provide the following to the Department:

1. A completed application form with the following information:
   a. Full legal name;
   b. Home address, including ZIP code and county;
   c. Mailing address if different from the home address;
   d. E-mail address;
   e. Social Security number;
   f. Driver license number or state identification card number and state of issuance;
   g. Home, business, and mobile telephone numbers;
   h. National origin or race, sex, height, weight, eye and hair colors, and date and place of birth; and
   i. A statement whether the individual suffers from mental illness or has been adjudicated mentally incompetent or committed to a mental institution;
2. A properly completed fingerprint card with classifiable fingerprints, unless the individual is currently registered as a firearms-safety instructor under A.R.S. § 13-3112;

3. The current evidence of completion referenced in R13-6-701(7); and
4. The fees required under R13-6-103.

B. If an individual is qualified under R13-6-701 and complies with the requirements in this Section, the Department shall certify the individual as a firearms-safety instructor.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-703. Firearms-safety Instructor Certification Renewal

A. A certified firearms-safety instructor shall renew the instructor's certification every two years by providing the following to the Department:
1. A completed application form with the information listed in R13-6-702(A)(1);
2. A properly completed fingerprint card with classifiable fingerprints unless currently registered as a firearms-safety instructor under A.R.S. § 13-3112;
3. The current evidence of completion referenced in R13-6-701(7); and
4. The renewal fee required under R13-6-103.

B. Upon verification that the firearms-safety instructor is qualified under R13-6-701 and complied with this Section, the Department shall renew the firearms-safety instructor's certification.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

R13-6-704. Requirements of a Firearms-safety Instructor

A firearms-safety instructor shall:
1. Conduct only firearms-safety training programs that are established by the Department;
2. Conduct Department-established firearms-safety training programs only in this state;
3. Maintain for five years the following firearms-safety training records regarding each individual to whom training is provided:
   a. Name and age of the individual at the time training started;
   b. Date and number of hours of each training session;
   c. Location of each training session;
   d. Name of the security guard agency or firearms-safety training organization sponsoring the training session;
   e. Title and Department-assigned number of the training program; and
   f. Whether the individual passed, failed, or withdrew from the training program; and
4. Make the firearms-safety training records referenced in subsection (3) available for inspection upon request by the Department.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 2825, effective September 9, 2006 (Supp. 06-3).

13-3101.Definitions

A. In this chapter,unlessthe context otherwise requires:

1. "Deadly weapon" means anything that is designed for lethal use. The term includesa firearm.

2. "Deface" means to remove,alter or destroy the manufacturer's serial number.

3. "Explosive" means any dynamite,nitroglycerine,black powder,or other similar explosive material, including plastic explosives.Explosive doesnot include ammunition or ammunition components such as primers,percussion caps,smokeless powder,black powder and black powder substitutes used for hand loading purposes.

4. [11]Firearm[11] means any loaded or unloaded handgun, pistol, revolver, rifle, shotgun or other weapon that will expel,is designed to expel or may readily be converted to expel a projectile by the action of an explosive. Firearm does not include a firearm in permanently inoperable condition.

5. "Improvised explosive device" means a device that incorporates explosives or destructive,lethal, noxious,pyrotechnic or incendiary chemicals and that isdesigned to destroy, disfigure,terrify or harass.

6. "Occupied structure" means any building, object,vehicle, watercraft, aircraft or place with sides and a floor that is separately securable from any other structure attached to it, that isused for lodging, business, transportation, recreation or storage and in which one or more human beings either are or are likely to be present or sonear as to be in equivalent danger at the time the discharge of a firearm occurs.Occupied structure includes any dwelling house,whether occupied, unoccupied or vacant.

7."Prohibited possessor" means any person:

(a) Who has been found to constitute a danger to self or to others or to have persistent or acute disabilities or grave disabilities pursuant to court order pursuant to section 36-540, and whose right to possess a fireann has not been restored pursuant to section 13-925.

(b) Who has been convicted within or without this state of a felony or who has been adjudicated delinquent for a felony and whose civil right to possess or carry a gun or firearm has not been restored.

(c) Who is at the time of possession serving a term of imprisonment in any correctional or detention facility.

(d) Who is at the time of possession serving a term of probation pursuant to a conviction for a domestic violence offense as defmed in section 13-3601 or a felony offense,parole,community supervision,work furlough, home arrest or release on any other basis or who is serving a term of probation or parole pursuant to the interstate compact under title 31,chapter 3,article 4.1.

(e) Who is an undocumented alien or a nonimmigrant alien traveling with or without documentation in this state for business or pleasure or who is studying in this state and who maintains a foreign residence abroad. This subdivision does not apply to:

(i) Nonimmigrant aliens who possess a valid hunting license or permit that is lawfully issued by a state in the United States.

(ii) Nonimmigrant aliens who enter the United States to participate in a competitive target shooting event or to display firearms at a sports or hunting trade show that is sponsored by a national, state or local

firearms trade organization devoted to the competitive use or other sporting use of firearms.

(iii) Certain diplomats.

(iv) Officials of foreign governments or distinguished foreign visitors who are designated by the United States department of state.

(v) Persons who have received a waiver from the United States attorney general.

(t) Who has been found incompetent pursuant to rule 11,Ariz.ona rules of criminal procedure,and who subsequently has not been found competent.

(g) Who is found guilty except insane.

8. "Prohibited weapon":

(a) Includes the following:

(i) An item that isabomb,grenade, rocket having a propellant charge of more than four ounces or mine and that isexplosive,incendiary or poison gas.

(ii) A device that is designed, made or adapted to muffle the report of a firearm.

(iii) A firearm that is capable of shooting more than one shot automatically, without manual reloading, by a single function of the trigger.

(iv) A rifle with a barrel length ofless than sixteen inches,or shotgun with a barrel length of less than eighteen inches,or any firearm that ismade from a rifle or shotgun and that, as modified, has an overall length of lessthan twenty-six inches.

(v) Aninstrument, including a nunc that consists of two or more sticks, clubs,bars or rods to be used as handles, connected by a rope, cord, wire or chain, in the design of a weapon used in connection with the practice of asystem of self-defense.

(vi) A breakable container that contains a flammable liquid with a flash point of one hundred fifty degrees Fahrenheit or lessand that has awick or similar device capable of being ignited.

(vii) A chemical or combination of chemicals,compounds or materials,including dry ice,that is possessed or manufactured for the purpose of generating a gas to cause a mechanical failure,rupture or bursting or an explosion or detonation ofthe chemical or combination of chemicals,compounds or materials.

(viii) An improvised explosive device.

(ix) Any combination of parts or materials that is designed and intended for use in making or converting a device into an item set forthin item (i),(vi) or (viii) of this subdivision.

(b) Does notinclude:

(i) Any frreworks that are imported, distributed or used in compliance with state laws or local ordinances.

(ii) Any propellant, propellant actuated devices or propellant actuated industrial tools that are manufactured, imported or distributed for their intended purposes.

(iii)A device that is commercially manufactured primarily for the purpose of illumination.

9. "Trafficking" means to sell, transfer,distribute,dispense or otherwise dispose of a weapon or explosive to another person, or to buy, receive, possess or obtain control of a weapon or explosive,with the intent to sell, transfer,distribute,dispense or otherwise dispose of the weapon or explosive to another person.

B. The items set forthin subsection A, paragraph 8,subdivision (a), items (i), (ii), (iii) and (iv) of this section do not include any firearms or devicesthat are registered inthe national firearms registry and transfer records of the United Statestreasury department or any frreann that has been classified as a curio or relic by the United States treasury department.

28-101. Definitions

In this title, unless the context otherwise requires:

1. "Alcohol" means any substance containing any form of alcohol, including ethanol, methanol, propynol and isopropynol.

2. "Alcohol concentration" if expressed as a percentage means either:

(a) The number of grams of alcohol per one hundred milliliters of blood.

(b) The number of grams of alcohol per two hundred ten liters of breath.

3. "All-terrain vehicle" means either of the following:

(a) A motor vehicle that satisfies all of the following:

(i) Is designed primarily for recreational nonhighway all-terrain travel.

(ii) Is fifty or fewer inches in width.

(iii) Has an unladen weight of one thousand two hundred pounds or less.

(iv) Travels on three or more nonhighway tires.

(v) Is operated on a public highway.

(b) A recreational off-highway vehicle that satisfies all of the following:

(i) Is designed primarily for recreational nonhighway all-terrain travel.

(ii) Is sixty-five or fewer inches in width.

(iii) Has an unladen weight of one thousand eight hundred pounds or less.

(iv) Travels on four or more nonhighway tires.

4. "Authorized emergency vehicle" means any of the following:

(a) A fire department vehicle.

(b) A police vehicle.

(c) An ambulance or emergency vehicle of a municipal department or public service corporation that is designated or authorized by the department or a local authority.

(d) Any other ambulance, fire truck or rescue vehicle that is authorized by the department in its sole discretion and that meets liability insurance requirements prescribed by the department.

5. "Autocycle" means a three-wheeled motorcycle on which the driver and passengers ride in a completely enclosed seating area that is equipped with a roll cage, safety belts for each occupant and antilock brakes and that is designed to be controlled with a steering wheel and pedals.

6. "Aviation fuel" means all flammable liquids composed of a mixture of selected hydrocarbons expressly manufactured and blended for the purpose of effectively and efficiently operating an internal combustion engine for use in an aircraft but does not include fuel for jet or turbine powered aircraft.

7. "Bicycle" means a device, including a racing wheelchair, that is propelled by human power and on which a person may ride and that has either:

(a) Two tandem wheels, either of which is more than sixteen inches in diameter.

(b) Three wheels in contact with the ground, any of which is more than sixteen inches in diameter.

8. "Board" means the transportation board.

9. "Bus" means a motor vehicle designed for carrying sixteen or more passengers, including the driver.

10. "Business district" means the territory contiguous to and including a highway if there are buildings in use for business or industrial purposes within any six hundred feet along the highway, including hotels, banks or office buildings, railroad stations and public buildings that occupy at least three hundred feet of frontage on one side or three hundred feet collectively on both sides of the highway.

11. "Combination of vehicles" means a truck or truck tractor and semitrailer and any trailer that it tows but does not include a forklift designed for the purpose of loading or unloading the truck, trailer or semitrailer.

12. "Controlled substance" means a substance so classified under section 102(6) of the controlled substances act (21 United States Code section 802(6)) and includes all substances listed in schedules I through V of 21 Code of Federal Regulations part 1308.

13. "Conviction" means:

(a) An unvacated adjudication of guilt or a determination that a person violated or failed to comply with the law in a court of original jurisdiction or by an authorized administrative tribunal.

(b) An unvacated forfeiture of bail or collateral deposited to secure the person's appearance in court.

(c) A plea of guilty or no contest accepted by the court.

(d) The payment of a fine or court costs.

14. "County highway" means a public road that is constructed and maintained by a county.

15. "Dealer" means a person who is engaged in the business of buying, selling or exchanging motor vehicles, trailers or semitrailers and who has an established place of business.

16. "Department" means the department of transportation acting directly or through its duly authorized officers andagents.

17. "Digital network or software application" has the same meaning prescribed in section 28-9551.

18. "Director" means the director of the department of transportation.

19. "Drive" means to operate or be in actual physical control of a motor vehicle.

20. "Driver" means a person who drives or is in actual physical control of a vehicle.

21. "Driver license" means a license that is issued by a state to an individual and that authorizes the individual to drive a motor vehicle.

22. "Electric personal assistive mobility device" means a self-balancing two nontandem wheeled device with an electric propulsion system that limits the maximum speed of the device to fifteen miles per hour or less and that is designed to transport only one person.

23. "Farm" means any lands primarily used for agriculture production.

24. "Farm tractor" means a motor vehicle designed and used primarily as a farm implement for drawing implements of husbandry.

25. "Foreign vehicle" means a motor vehicle, trailer or semitrailer that is brought into this state other than in the ordinary course of business by or through a manufacturer or dealer and that has not been registered in this state.

26. "Golf cart" means a motor vehicle that has not less than three wheels in contact with the ground, that has an unladen weight of less than one thousand eight hundred pounds, that is designed to be and is operated at not more than twenty-five miles per hour and that is designed to carry not more than four persons including the driver.

27. "Hazardous material" means a material, and its mixtures or solutions, that the United States department of transportation determines under 49 Code of Federal Regulations is, or any quantity of a material listed as a select agent or toxin under 42 Code of Federal Regulations part 73 that is, capable of posing an unreasonable risk to health, safety and property if transported in commerce and that is required to be placarded or marked as required by the department's safety rules prescribed pursuant to chapter 14 of this title.

28. "Implement of husbandry" means a vehicle designed primarily for agricultural purposes and used exclusively in the conduct of agricultural operations, including an implement or vehicle whether self-propelled or otherwise that meets both of the following conditions:

(a) Is used solely for agricultural purposes including the preparation or harvesting of cotton, alfalfa, grains and other farm crops.

(b) Is only incidentally operated or moved on a highway whether as a trailer or self-propelled unit. For the purposes of this subdivision, "incidentally operated or moved on a highway" means travel between a farm and another part of the same farm, from one farm to another farm or between a farm and a place of repair, supply or storage.

29. "Limousine" means a motor vehicle providing prearranged ground transportation service for an individual passenger, or a group of passengers, that is arranged in advance or is operated on a regular route or between specified points and includes ground transportation under a contract or agreement for services that includes a fixed rate or time and is provided in a motor vehicle with a seating capacity not exceeding fifteen passengers including the driver.

30. "Livery vehicle" means a motor vehicle that:

(a) Has a seating capacity not exceeding fifteen passengers including the driver.

(b) Provides passenger services for a fare determined by a flat rate or flat hourly rate between geographic zones or within a geographic area.

(c) Is available for hire on an exclusive or shared ride basis.

(d) May do any of the following:

(i) Operate on a regular route or between specified places.

(ii) Offer prearranged ground transportation service as defined in section 28-141.

(iii) Offer on demand ground transportation service pursuant to a contract with a public airport, licensed business entity or organization.

31. "Local authority" means any county, municipal or other local board or body exercising jurisdiction over highways under the constitution and laws of this state.

32. "Manufacturer" means a person engaged in the business of manufacturing motor vehicles, trailers or semitrailers.

33. "Moped" means a bicycle that is equipped with a helper motor if the vehicle has a maximum piston displacement of fifty cubic centimeters or less, a brake horsepower of one and one-half or less and a maximum speed of twenty-five miles per hour or less on a flat surface with less than a one percent grade.

34. "Motor driven cycle" means a motorcycle, including every motor scooter, with a motor that produces not more than five horsepower.

35. "Motor vehicle":

(a) Means either:

(i) A self-propelled vehicle.

(ii) For the purposes of the laws relating to the imposition of a tax on motor vehicle fuel, a vehicle that is operated on the highways of this state and that is propelled by the use of motor vehicle fuel.

(b) Does not include a motorized wheelchair, an electric personal assistive mobility device or a motorized skateboard. For the purposes of this subdivision:

(i) "Motorized skateboard" means a self-propelled device that has a motor, a deck on which a person may ride and at least two tandem wheels in contact with the ground.

(ii) "Motorized wheelchair" means a self-propelled wheelchair that is used by a person for mobility.

36. "Motor vehicle fuel" includes all products that are commonly or commercially known or sold as gasoline, including casinghead gasoline, natural gasoline and all flammable liquids, and that are composed of a mixture of selected hydrocarbons expressly manufactured and blended for the purpose of effectively and efficiently operating internal combustion engines. Motor vehicle fuel does not include inflammable liquids that are specifically manufactured for racing motor vehicles and that are distributed for and used by racing motor vehicles at a racetrack, use fuel as defined in section 28-5601, aviation fuel, fuel for jet or turbine powered aircraft or the mixture created at the interface of two different substances being transported through a pipeline, commonly known as transmix.

37. "Motorcycle" means a motor vehicle that has a seat or saddle for the use of the rider and that is designed to travel on not more than three wheels in contact with the ground but excludes a tractor and a moped.

38. "Motorized quadricycle" means a self-propelled motor vehicle to which all of the following apply:

(a) The vehicle is self-propelled by an emission-free electric motor and may include pedals operated by the passengers.

(b) The vehicle has at least four wheels in contact with the ground.

(c) The vehicle seats at least eight passengers, including the driver.

(d) The vehicle is operable on a flat surface using solely the electric motor without assistance from the pedals or passengers.

(e) The vehicle is a commercial motor vehicle as defined in section 28-5201.

(f) The vehicle is licensed by the department of weights and measures to operate as a limousine pursuant to section 28-9503.

(g) The vehicle is manufactured by a motor vehicle manufacturer that is licensed pursuant to chapter 10 of this title.

(h) The vehicle complies with the definition and standards for low-speed vehicles set forth in federal motor vehicle safety standard 500 and 49 Code of Federal Regulations section 571.3(b) and 571.500, respectively.

39. "Neighborhood electric vehicle" means a self-propelled electrically powered motor vehicle to which all of the following apply:

(a) The vehicle is emission free.

(b) The vehicle has at least four wheels in contact with the ground.

(c) The vehicle complies with the definition and standards for low speed vehicles set forth in federal motor vehicle safety standard 500 and 49 Code of Federal Regulations sections 571.3(b) and 571.500, respectively.

40. "Nonresident" means a person who is not a resident of this state as defined in section 28-2001.

41. "Off-road recreational motor vehicle" means a motor vehicle that is designed primarily for recreational nonhighway all-terrain travel and that is not operated on a public highway. Off-road recreational motor vehicle does not mean a motor vehicle used for construction, building trade, mining or agricultural purposes.

42. "Operator" means a person who drives a motor vehicle on a highway, who is in actual physical control of a motor vehicle on a highway or who is exercising control over or steering a vehicle being towed by a motor vehicle.

43. "Owner" means:

(a) A person who holds the legal title of a vehicle.

(b) If a vehicle is the subject of an agreement for the conditional sale or lease with the right of purchase on performance of the conditions stated in the agreement and with an immediate right of possession vested in the conditional vendee or lessee, the conditional vendee or lessee.

(c) If a mortgagor of a vehicle is entitled to possession of the vehicle, the mortgagor.

44. "Pedestrian" means any person afoot. A person who uses an electric personal assistive mobility device or a manual or motorized wheelchair is considered a pedestrian unless the manual wheelchair qualifies as a bicycle. For the purposes of this paragraph, "motorized wheelchair" means a self-propelled wheelchair that is used by a person for mobility.

45. "Power sweeper" means an implement, with or without motive power, that is only incidentally operated or moved on a street or highway and that is designed for the removal of debris, dirt, gravel, litter or sand whether by broom, vacuum or regenerative air system from asphaltic concrete or cement concrete surfaces, including parking lots, highways, streets and warehouses, and a vehicle on which the implement is permanently mounted.

46. "Public transit" means the transportation of passengers on scheduled routes by means of a conveyance on an individual passenger fare-paying basis excluding transportation by a sightseeing bus, school bus or taxi or a vehicle not operated on a scheduled route basis.

47. "Reconstructed vehicle" means a vehicle that has been assembled or constructed largely by means of essential parts, new or used, derived from vehicles or makes of vehicles of various names, models and types or that, if originally otherwise constructed, has been materially altered by the removal of essential parts or by the addition or substitution of essential parts, new or used, derived from other vehicles or makes of vehicles. For the purposes of this paragraph, "essential parts" means integral and body parts, the removal, alteration or substitution of which will tend to conceal the identity or substantially alter the appearance of the vehicle.

48. "Residence district" means the territory contiguous to and including a highway not comprising a business district if the property on the highway for a distance of three hundred feet or more is in the main improved with residences or residences and buildings in use for business.

49. "Right-of-way" when used within the context of the regulation of the movement of traffic on a highway means the privilege of the immediate use of the highway. Right-of-way when used within the context of the real property on which transportation facilities and appurtenances to the facilities are constructed or maintained means the lands or interest in lands within the right-of-way boundaries.

50. "School bus" means a motor vehicle that is designed for carrying more than ten passengers and that is either:

(a) Owned by any public or governmental agency or other institution and operated for the transportation of children to or from home or school on a regularly scheduled basis.

(b) Privately owned and operated for compensation for the transportation of children to or from home or school on a regularly scheduled basis.

51. "Semitrailer" means a vehicle that is with or without motive power, other than a pole trailer, that is designed for carrying persons or property and for being drawn by a motor vehicle and that is constructed so that some part of its weight and that of its load rests on or is carried by another vehicle. For the

purposes of this paragraph, "pole trailer" has the same meaning prescribed in section 28-601.

52. "State" means a state of the United States and the District of Columbia.

53. "State highway" means a state route or portion of a state route that is accepted and designated by the board as a state highway and that is maintained by the state.

54. "State route" means a right-of-way whether actually used as a highway or not that is designated by the board as a location for the construction of a state highway.

55. "Street" or "highway" means the entire width between the boundary lines of every way if a part of the way is open to the use of the public for purposes of vehicular travel.

56. "Taxi" means a motor vehicle that has a seating capacity not exceeding fifteen passengers, including the driver, that is registered as a taxi in this state or any other state, that provides passenger services and that:

(a) Does not primarily operate on a regular route or between specified places.

(b) Offers local transportation for a fare determined on the basis of the distance traveled or prearranged ground transportation service as defined in section 28-141 for a predetermined fare.

57. "Traffic survival school" means a school that offers educational sessions to drivers who are required to attend and successfully complete educational sessions pursuant to this title that are designed to improve the safety and habits of drivers and that are approved by the department.

58. "Trailer" means a vehicle that is with or without motive power, other than a pole trailer, that is designed for carrying persons or property and for being drawn by a motor vehicle and that is constructed so that no part of its weight rests on the towing vehicle. A semitrailer equipped with an auxiliary front axle commonly known as a dolly is deemed to be a trailer. For the purposes of this paragraph, "pole trailer" has the same meaning prescribed in section 28-601.

59. "Transportation network company" has the same meaning prescribed in section 28-9551.

60. "Transportation network company vehicle" has the same meaning prescribed in section 28-9551.

61. "Transportation network service" has the same meaning prescribed in section 28-9551.

62. "Truck" means a motor vehicle designed or used primarily for the carrying of property other than the effects of the driver or passengers and includes a motor vehicle to which has been added a box, a platform or other equipment for such carrying.

63. "Truck tractor" means a motor vehicle that is designed and used primarily for drawing other vehicles and that is not constructed to carry a load other than a part of the weight of the vehicle and load drawn.

64. "Vehicle" means a device in, on or by which a person or property is or may be transported or drawn on a public highway, excluding devices moved by human power or used exclusively on stationary rails or tracks.

65. "Vehicle transporter" means either:

(a) A truck tractor capable of carrying a load and drawing a semitrailer.

(b) A truck tractor with a stinger-steered fifth wheel capable of carrying a load and drawing a semitrailer or a truck tractor with a dolly mounted fifth wheel that is securely fastened to the truck tractor at two or more points and that is capable of carrying a load and drawing a semitrailer.

28-624. Authorized emergency vehicles

A. If an authorized emergency vehicle is driven in response to an emergency call, in pursuit of an actual or suspected violator of law or in response to but not on return from a fire alarm, the driver may exercise the privileges provided in this section subject to the conditions stated in this section.

B. If the driver of an authorized emergency vehicle is operating at least one lighted lamp displaying a red or red and blue light or lens visible under normal atmospheric conditions from a distance of five hundred feet to the front of the vehicle, the driver may:

1. Notwithstanding this chapter, park or stand.

2. Proceed past a red or stop signal or stop sign, but only after slowing down as necessary for safe operation.

3. Exceed the prima facie speed limits if the driver does not endanger life or property.

4. Disregard laws or rules governing the direction of movement or turning in specified directions.

C. The exemptions authorized by this section for an authorized emergency vehicle apply only if the driver of the vehicle while in motion sounds an audible signal by bell, siren or exhaust whistle as reasonably necessary and if the vehicle is equipped with at least one lighted lamp displaying a red or red and blue light or lens visible under normal atmospheric conditions from a distance of five hundred feet to the front of the vehicle, except that an authorized emergency vehicle operated as a police vehicle need not be equipped with or display a red or red and blue light or lens visible from in front of the vehicle.

D. This section does not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons and does not protect the driver from the consequences of the driver's reckless disregard for the safety of others.

28-947. Special restrictions on lamps

A. A person shall direct a lighted lamp or illuminating device on a motor vehicle, other than a head lamp, spot lamp, auxiliary lamp or flashing front direction signal, that projects a beam of light of an intensity greater than three hundred candlepower so that no part of the beam strikes the level of the roadway on which the vehicle stands at a distance of more than seventy-five feet from the vehicle.

B. A person shall not drive or move a vehicle or equipment on a highway with a lamp or device on the vehicle that is capable of displaying a red or red and blue light or lens visible from directly in front of the center of the vehicle. Lights visible from the front of a vehicle shall be amber or white. This section does not apply to either of the following:

1. An authorized emergency vehicle or a vehicle on which a red or red and blue light or lens visible from the front is expressly authorized or required by this chapter.

2. A fire engine that is solely used for hobby or display purposes and that has been issued a historic vehicle license plate pursuant to section 28-2484 if either of the following applies:

(a) The lights are covered and are not activated while a person is transporting or driving the vehicle to or from a parade, authorized assemblage of historic vehicles or test.

(b) The lights are activated only in a parade, for an authorized assemblage of historic vehicles or for testing purposes.

C. Except as provided in subsection D or E of this section, flashing lights on motor vehicles are prohibited except either:

1. On authorized emergency vehicles, school buses or snow removal equipment.

2. As warning lights on disabled or parked vehicles.

3. On a vehicle as a means for indicating a right or left turn.

D. A vehicle may have lamps that may be used to warn the operators of other vehicles of the presence of a vehicular traffic hazard requiring the exercise of unusual care in approaching, overtaking or passing. The vehicle may display these lamps as a warning in addition to any other warning signals required by this article. The lamps used to display the warning to the front shall be mounted at the same level and as widely spaced laterally as practicable and shall display simultaneously flashing white or amber lights or any shade of color between white and amber. The lamps used to display the warning to the rear shall be mounted at the same level and as widely spaced laterally as practicable and shall show simultaneously flashing amber or red lights or any shade of color between amber and red. These warning lights shall be visible from a distance of at least one thousand five hundred feet under normal atmospheric conditions at night.

E. A person may equip a motorcycle with a means of modulating the intensity of a head lamp beam between the higher and lower brightness at a rate of two hundred to two hundred eighty cycles per minute. A person shall not modulate the head lamp beam during the hours of darkness as prescribed in section 28-922.

32-2601. Definitions

Inthis chapter,unless the context otherwise requires:

1. "Advertising" means submitting bids, contracting or making known by any public notice,publication or solicitation of business,directly or indirectly, that servicesregulated under this chapter are available for consideration.

2. "Agency license" means a certificate that is authenticated by the department and that attests that a qualifying party isauthorized to conduct the business of private security guard service in this state.

3. "Applicant[11] means a person who has submitted a completed application and all required application and fingerprint processing fees.

4. "Armed security guard" means a registered security guard who wears,carries,possesses or has access to a firearm at any time during the course of employment.

5. "Associate" means a person who is a partner or corporate officer in a security guard agency.

6. "Board[11] means the private investigator and security guard hearing board established pursuant to section 32-2404.

7."Conviction" means an adjudication of guilt by a federal, state or local court resulting from trial or plea, including a plea of no contest, regardless of whether or not the adjudication of guilt was set aside or vacated.

8. "Department" means the department of public safety.

9. "Director" means the director of the department of public safety.

10. "Emergency action" means a summary suspension of a license pending revocation, suspension or probation in order to protect the public health, safety or welfare.

11. [11]Employee[11] means an individual who works for anemployer, is listed on the employer's payroll records and is under the employer's direction and control.

12."Employer" means a person who is licensed pursuant to this chapter,who employs an individual for wages or salary, who lists the individual on the employer's payroll records and who withholds all legally required deductions and contributions.

13."Identification card" means a card issued by the deparbnent to a qualified applicant for an agency license,to an associate or to a registrant.

14. [11]Letter of concern" means an advisory letter to notify a licensee or registrant that while there is insufficient evidence to support probation, suspension or revocation of a license or registration the department believesthe licensee or registrant should modify or eliminate certain practicesand that continuation of the activitiesthat led to the information being submitted to the department may result in further disciplinary action against the person's license or registration.

15."Licensee" means a person to whom an agency license isgranted pursuant to article 2 of this chapter.

16."Private security guard service[11] means any agency, individual or employer in the business of

furnishing to the public for hire, fee or reward dogs, watchmen, patrol service,private security guards or other persons to protect human life or to prevent the theft or the misappropriation or concealment of goods,wares,merchandise,money, bonds,stocks,notes,choses in action or other property, valuable documents,papers and articles of value.

17. "Proprietmy company" means a company that employs security guards or armed security guards solely for use of and service to itself and not for others.

18. "Qualifying party" means the individual who meets the qualifications under this chapter for an agency license.

19. "Registrant" means an employee of a licensed agency who is qualified to perform the services of a security guard.

20. "Registration certificate" means a certificate that is authenticated by the department and that attests that an employee of a business holding an agency license has satisfactorily complied with article 3 of this chapter.

21. "Restructuring" means any change in abusiness' legal status.

22. "Security guard" means any person employed by a private security guard service or proprietary company as a watchman, patrolman, bodyguard, personal protection guard, private security guard or other person who performs security guard services,but doesnot include any regularly commissioned police or peace officer or railroad police appointed pursuant to section 40-856.

23. "Unprofessional conduct" means any of the following:

(a) Engaging or offering to engage by fraud or misrepresentation in activitiesregulated by this chapter.

(b) Aiding or abetting a person who isnot licensed or registered pursuant to this chapter in representing that person as a security guard in this state.

(c) Gross negligence in the practice of a security guard.

(d) Failing or refusing to maintain adequate records on a client containing at least sufficient information to identify the client, the dates of service,the fee for service and the payments for service.

(e) Committing a felony or a misdemeanor involving any crime that is grounds for denial, suspension or revocation of a security guard agency license or employee registration certificate. In all cases, conviction by a court of competentjurisdiction or a plea of no contest is conclusive evidence of the commission.

(t) Making a fraudulent or false statement to the department, the board or the department's investigators, staff or consultants.

32-2602. Administration by director; duty to keep records; rules; criminal history records checks

A. The director of the department of public safety shall administer this chapter.

B. The department shall keep a record of:

1. All applications for licenses or registration under this chapter.

2. Whether a license, registration certificate, renewal license or renewal registration certificate has been issued under each application.

3. If a license or registration certificate is revoked or suspended, the date of filing the order for revocation or suspension.

4. A list of all individuals, qualifying parties, firms, partnerships, associations or corporations that have had licenses or registrations revoked or suspended and a written record of complaints filed against any licensees or registrants.

5. All insurance policies required to be filed under this chapter.

C. The department shall maintain all records kept pursuant to subsection B of this section for at least five years. The records, except the financial statement of licensees, are open to inspection as public records.

D. The department shall adopt and enforce rules that are not in conflict with the laws of this state and that are necessary to enforce this chapter.

E. The director may conduct periodic criminal history records checks pursuant to section 41-1750 for the purpose of updating the licensing and registration status of current license and registration holders.

32-2607. Fees; renewal of license or registration certificate

A. The department shall charge and collect reasonable fees as determined by the director to cover the operational and equipment costs of regulating the security guard industry.

B. An agency license granted under this chapter may be renewed after receiving an application on such form as the department prescribes, receipt of the fees prescribed pursuant to subsection A of this section and proof of required liability insurance and workers' compensation. Except as provided in section 32-4301, in no event shall renewal be granted more than ninety days after the expiration date of a license. No person, firm, company, partnership or corporation may carry on any business subject to this article during any period that may exist between the date of expiration of a license and the renewal of the license.

C. A security guard or armed security guard registration certificate granted under this article may be issued after application on such form as the department prescribes, the payment of fees prescribed pursuant to subsection A of this section and proof of the completion of training as required by this chapter.

D. A security guard or armed security guard registration certificate granted under this article may be renewed after application on such form as the department prescribes and the payment of renewal fees.

E. Except as provided in section 32-4301, the department shall not renew an agency license or registration certificate more than ninety calendar days after expiration. A licensee or registrant shall not engage in any activity regulated by this chapter during any period between the date of expiration of the license or registration and the renewal of the license or registration.

F. The department may renew a suspended license or registration as provided in this chapter. While suspended, the renewal of the license or registration does not entitle the licensee, security guard or armed security guard to engage in any activity regulated by this chapter or in any other activity or conduct in violation of the order or judgment that suspended the license or registration certificate.

G. The department shall not renew a revoked license or registration certificate. The department shall not accept an application for a license or registration from a person whose license or registration has been revoked until at least one year after the date of revocation.

32-2608. License or registration required; violation; classification

A. A person, except a regularly commissioned peace officer, shall not act or attempt to act or represent that the person is a security guard unless the person is registered as a security guard pursuant to this chapter and is acting within the scope of the person's employment for an agency licensed pursuant to article 2 of this chapter.

B. A person who knowingly violates this section is guilty of a class 1 misdemeanor.

32-2611. Necessity of an agency license

A person shall not engage in a business regulated by this chapter or act, assume to act as or represent himself to be a licensee unless the person is licensed pursuant to this chapter.

32-2612. Qualifications of applicant for agency license; substantiation of work experience

A. Each applicant, if an individual, or each associate, director or manager, if the applicant is other than an individual, for an agency license to be issued pursuant to this chapter shall:

1. Be at least twenty-one years of age.

2. Be a citizen or a legal resident of the United States who is authorized to seek employment in the United States.

3. Not have been convicted of any felony or currently be under indictment for a felony.

4. Within the five years immediately preceding the application for an agency license, not have been convicted of any misdemeanor act involving:

(a) Personal violence or force against another person or threatening to commit any act of personal violence or force against another person.

(b) Misconduct involving a deadly weapon as provided in section 13-3102.

(c) Dishonesty or fraud.

(d) Arson.

(e) Theft.

(t) Domestic violence.

(g) A violation of title 13, chapter 34 or 34.1 or an offense that has the same elements as an offense listed in title 13, chapter 34 or 34.1.

(h) Sexual misconduct.

S. Not be on parole, on community supervision, on work furlough, on home arrest, on release on any other basis or named in an outstanding arrest warrant.

6. Not be serving a term of probation pursuant to a conviction for any act of personal violence or domestic violence, as defined in section 13-3601, or an offense that has the same elements as an offense listed in section 13-3601.

7. Not be any of the following:

(a) Adjudicated mentally incompetent.

(b) Found to constitute a danger to self or others or to be in persistent or acute disability or grave disability pursuant to section 36-540.

(c) Found incompetent pursuant to rule 11, Arizona rules of criminal procedure.

(d) Found guilty except insane.

8. Not have a disability as defined in section 41-1461, unless that person is a qualified individual as

defined in section 41-1461.

9. Not have been convicted of acting or attempting to act as a security guard or a security guard agency without a license if a license was required.

10. Not be a registered sex offender.

B. The qualifying party for an agency license and the resident manager, if a resident manager is required pursuant to section 32-2616, shall have at least three years of full-time experience as a manager, supervisor or administrator of a security guard agency or three years of full-time supervisory experience with any federal, United States military, state, county or municipal law enforcement agency. The qualifying party for an agency license and the resident manager, if a resident manager is required pursuant to section 32-2616, must substantiate managerial work experience claimed as years of qualifying experience and provide the exact details as to the character and nature of the experience on a form prescribed by the department and certified by the employer. On written request, an employer shall submit to the employee a written certification of prior work experience within thirty calendar days. The written certification is subject to independent verification by the department. If an employer goes out of business, the employer shall provide registered employees with a complete and accurate record of their work history. If an applicant is unable to supply written certification from an employer in whole or in part, the applicant may offer written certification from persons other than an employer covering the same subject matter for consideration by the department. The burden of proving the minimum years of experience is on the applicant.

C. The department may deny an agency license if the department determines that the applicant is unfit based on a conviction, citation or encounter with law enforcement for a statutory violation.

32-2613. Application for agency license; financial responsibilicy; notice and opportunicy to supply additional information

A. Every application for an original or renewal agency license to operate as a private security guard service shall set forth verified information to assist the department in determining the applicant's ability to meet the requirements set forth in this chapter and shall include the following:

1. The full name and business address of the applicant.

2. The name under which the applicant intends to do business.

3. A statement as to the general nature of the business in which the applicant intends to engage, including identification of armed security guard training requirements and identification of employees acting as armed security guards.

4. Photographs of the applicant of a number and type prescribed by the department.

5. Fingerprints of the applicant of a quality and number prescribed by the department for the purpose of obtaining state and federal criminal records checks pursuant to section 41-1750 and Public Law 92-544. The department may exchange this fingerprint data with the federal bureau of investigation. The department may conduct periodic state criminal history checks to ensure continued qualification under this chapter.

6. A verified statement of the applicant's experience and qualifications.

7. Such other information, evidence, statements or documents as may reasonably be required by the director.

B. If the applicant is other than an individual, each of its partners, resident officers, associates, directors and managers, in addition to its qualifying party, shall comply with the requirements of subsection A of this section. If the applicant is other than an individual, the application shall contain the full name and address of each of its board members, the president, vice-president, secretary and treasurer. The person who will manage the business conducted in this state shall comply in full with the requirements of subsection A of this section.

C. An application for an original or a renewal agency license shall be accompanied by:

1. The fee as prescribed pursuant to section 32-2607.

2. A certificate of a liability insurance policy, issued by an insurance company licensed or authoriz.ed to do business in this state. The minimum limits of such liability insurance policies shall be established by the department. Any insurer issuing such a policy shall give written notice to the department of any cancellation of such policy. Such notice shall be given by the insurer to the director at least ten days before such cancellation by certified mail.

3. A certificate of workers' compensation insurance.

4. A completed form describing the agency's training program for employees as described in section 32-2632, subsection A, including training requirements for and identification of armed security guards employed by the agency. The form shall be as prescribed by the director and require such information as the director deems necessary.

D. If an application is incomplete, the department shall notify the applicant pursuant to section 41-1074. If the department requires additional information to make a decision on licensure, the department shall notify the applicant pursuant to section 41-1075. The department shall send notices under this subsection to the applicant's last known residential address and shall include sufficient information to assist the applicant to complete the application process. The applicant has forty-five calendar days from the date of notification to provide the additional documentation. If the applicant fails to respond within forty-five calendar days, the application and any certificates issued are automatically suspended until the department receives the necessary documentation to approve or deny the application.

32-2614. Issuance of an agency license and identification card; deadline for completing application

A. The department shall issue an agency license under this article to any applicant who satisfactorily complies with this chapter. Each agency license shall contain the name and address of such licensee and the number of the license and shall be issued for a period of two years.

B. Upon the issuance of an agency license, an identification card as described in section 32-2633 shall be issued to such licensee if an individual, or if such licensee is other than an individual, to its qualifying party, associates, resident managers and each of its resident officers, associates, directors and partners. The identification card is evidence that the licensee is duly licensed pursuant to this chapter. If any person to whom the card of an agency licensee, other than an individual, is issued terminates the person's positio office or association with the licensee, the person shall surrender the card to the licensee and within five business days the licensee shall mail or deliver the card to the director for cancellation. If the person fails or refuses to surrender the card to the licensee, the licensee shall notify the director within five business days of the termination of the person's positio office or association with the licensee.

C. On notification by the department to an applicant that the agency license is ready for issuance, the applicant shall complete the application process within ninety calendar days. Failure to complete the process results in the application being canceled and the applicant forfeits all fees. Subsequent application by the same applicant requires the payment of all application and license fees prescribed pursuant to section 32-2607.

D. An agency licensee shall, within thirty calendar days, notify the department in writing of any change in the name or address of the business or any change of associates or directors.

32-2616. Qualifying par:131; responsibilities

A. An applicant for an agency license shall have a qualifying party.

B. For a sole proprietorship, the qualifying party shall be the agency licensee.

C. For a partnership, corporation or limited liability company, the qualifying party shall be the individual who is liable for managing the agency. All other partners or corporate officers shall register as associates pursuant to article 3 of this chapter.

D. If the qualifying party lives outside this state, the qualifying party shall designate a resident manager who is a manager of the agency, who maintains full-time legal residency in this state and who meets the requirements of sections 32-2612 and 32-2613.

E. If required, the qualifying party shall maintain workers' compensation insurance and liability insurance in effect as prescribed by section 32-2613, subsection C.

32-2617. Branch office certificate

A. A licensee may not establish a branch office of a licensed agency unless the department has issued a branch office certificate.

B. A branch office certificate authorizes the qualifying party of an agency licensee to conduct the business of a private security guard service agency in this state at a location other than the principal place of business shown on the agency license.

C. An application for abranch office certificate shall be on such fonn as the department prescribes.

D. The branch office certificate shall be issued inthe name of the licensed agency only.

32-2621. Necessity of security guard registration

A. No perso except a regularly commissioned peace officer, shall act, attempt to act or represent himself as a security guard unless such person is registered as a guard pursuant to this chapter and acting within the scope of his employment for an agency licensed pursuant to article 2 of this chapter.

B. The provisions of this article shall not apply to individual agency licensees or to qualifying parties, officers, directors, partners or managers of an agency licensee who are licensed pursuant to article 2 of this chapter.

32-2622. Qualifications of applicant for associate, security guard or armed security guard registration certificate

A. An applicant for an associate or a security guard registration certificate issued pursuant to this article shall:

1. Be at least eighteen years of age.

2. Be a citizen or legal resident of the United States who is authorized to seek employment in the United States.

3. Not have been convicted of any felony or currently be under indictment for a felony.

4. Within the five years immediately preceding the application for an associate, security guard or armed security guard registration certificate, not have been convicted of any misdemeanor act involving:

(a) Personal violence or force against another person or threatening to commit any act of personal violence or force against another person.

(b) Misconduct involving a deadly weapon as provided in section 13-3102.

(c) Dishonesty or fraud.

(d) Arson.

(e) Theft.

(t) Domestic violence.

(g) A violation of title 13, chapter 34 or 34.1 or an offense that has the same elements as an offense listed in title 13, chapter 34 or 34.1.

(h) Sexual misconduct.

S. Not be on parole, on community supervision, on work furlough, on home arrest, on release on any other basis or named in an outstanding arrest warrant.

6. Not be serving a tenn of probation pursuant to a conviction for any act of personal violence or domestic violence, as defined in section 13-3601, or an offense that has the same elements as an offense listed in section 13-3601.

7. Not be either of the following:

(a) Adjudicated mentally incompetent.

(b) Found to constitute a danger to self or others pursuant to section 36-540.

8. Not have a disability as defined in section 41-1461, unless that person is a qualified individual as defined in section 41-1461.

9. Not have been convicted of acting or attempting to act as an associate security guard or armed security guard without a license if a license was required.

10. Not be a registered sex offender.

B. An applicant for an armed security guard registration certificate issued pursuant to this chapter shall:

1. Meet the requirements of subsection A of this section.

2. Successfully complete all background screening and training requirements.

3. Not be a prohibited possessor as defined in section 13-3101 or as described in 18 United States Code section 922.

4. Not have been discharged from the armed services of the United States under other than honorable conditions.

5. Not have been convicted of any crime involving domestic violence as defined in section 13-3601.

32-2623. Application for employee registration certificate

A. Every application for an employee registration certificate must set forth verified information to assist the department in determining the applicant's ability to meet the requirements set forthin this chapter, as follows:

1. The full name and address of the applicant.

2. Fingerprints of the applicant of a quality and number prescribed by the department for the purpose of obtaining state and federal criminal records checks pursuant to section 41-1750 and Public Law 92-544. The department may exchange this fingerprint data with the federal bureau of investigation. The department may conduct periodic state criminal history checks to ensure continued qualification under this chapter.

3. Photographs of the applicant of a number and type prescribed by the department.

4. Such other information, evidence, statements or documents as may reasonably be required by the department.

B. An application for an original or renewal security guard or armed security guard registration certificate shall be accompanied by:

1. The fees prescribed pursuant to section 32-2607.

2. A statement from the applicant's employer requesting and authorizing armed security guard registration status for the applicant.

C. If an application is incomplete, the department shall notify the applicant pursuant to section 41-1074. Ifthe department requiresadditional infonnation to make a decision on registration, the department shall notify the applicant pursuant to section 41-1075. The department shall send notices issued under this subsection to the applicant'slast known residential address and shall include sufficient information to assist the applicant to complete the application process. The applicant has forty-five calendar days from the date of notification to provide the additional documentation. Ifthe applicant fails to respond within forty-five calendar days,the application and any certificates issued are automatically suspended until the department receivesthe necessary documentation to approve or deny the application.

32-2624. Issuance of security guard registration certificate and identification card

A. After investigation, the department shall issue a security guard registration certificate or armed security guard registration certificate under this chapter to any applicant who satisfactorily complies with this chapter. Each security guard registration certificate shall contain the name and address of the registrant and the number of the certificate and shall be issued for two years.

B. When a security guard registration certificate is issued, an identification card as described in section 32-2633 shall be issued to the registrant. The identification card is evidence that the person is a duly registered security guard. An employee must obtain an armed security guard registration certificate and identification card for each sponsoring agency licensee.

C. A security guard employee may not possess or carry a firearm while on official duty unless the employee is currently registered as an armed security guard and is authorized by the person's employer to possess or carry the frreann.

D. A security guard shall notify the director within fifteen calendar days of any change in the security guard's name or residential address.

E. The deparbnent shall not issue a security guard provisional certificate.

32-2632. Duty of licensee to provide training of security guards; records; firearms training

A. An agency licensee shall provide eight hours of preassignment training of all persons employed as security guards before the employee acts in the capacity of a security guard. The required training curriculum shall be established by the department.

B. All renewal applicants shall complete eight hours of refresher training within ninety days before submitting a renewal application. The department shall establish the required training curriculum.

C. Every agency licensee shall keep an accurate and current record of pertinent infonnation on all persons employed as security guards, which shall be made available to the department in the event of an alleged violation of this chapter.

D. At least sixteen hours of initial frreanns instruction and eight hours annual continuing frrearms instruction in the use of the weapon used by the security guard is required if a firearm isused within the scope of employment. All firearms training and qualifications shall be conducted by a firearms instructor certified by the department and shall be completed before the security guard is assigned to any position requiring the carrying of a frrearm. The licensee shall provide amonthly report to the department identifying all armed security guards employed by the agency.

E. The department shall adopt rules for both of the following:

1. Certification of firearms instructors who provide the firearms training required by subsection D.

2. A firearms training curriculum.

32-2633.Identification cards

Each holder of a license or registration certificate issued under this chapter shall obtain a standard identification card that is issued by the department. The department shall detennine the size and design of the identification card and the card shall contain the following information:

1.Name ofemployee.

2. Date of expiration.

3. Photograph of employee.

4. Physical description ofemployee.

5.Employee'sregistration number.

6. Ifthe employee isan armed security guard, infonnation identifying the employee as an anned security guard and the name of the authorizing employer.

7. Such other information as may be determined necessary by the director.

32-2634. Authority; limitations

A person employed as a security guard or armed security guard shall not possess the authority of a regularly commissioned police or peace officer. Any duties performed by a security guard or armed security guard shall be performed in the capacity of a private citizen.

32-2635. Uniform and insignia

A. The particular type of uniform and insignia for a security guard or an armed security guard shall be subject to approval according to rules adopted by the department and shall be such that it will not deceive or confuse the public or be identical with that of any law enforcement officer of the federal government, this state or any political subdivision of this state. Shoulder identification patches shall be worn on all uniform jackets, coats and shirts and shall include the name of the agency licensee. Shoulder identification patches or emblems shall not be less than two inches by three inches in size.

B. No badge or shield shall be worn or carried by a security guard, an armed security guard or an employee or registrant of any patrol service agency or private security guard agency, unless previously approved by the director.

32-2636. Grounds for disciplinary action; emergency summary suspension; judicial review

A. The following constitute grounds for disciplinary action against a licensee or registrant, or if the licensee is other than an individual, against its qualifying party or any of its associates, directors or managers:

1. Using any letterhead, advertisement or other printed matter to represent, or in any other manner representing, that the licensee, registrant or qualifying party or its associate, director or manager is an instrumentality of the federal government or any state or political subdivision of a state.

2. Using a name that is different from that under which the licensee, registrant or qualifying party or its associate, director or manager is currently licensed or registered for any advertisement, solicitation or contract to secure business under this chapter unless the name is an authorized fictitious name.

3. Falsifying fingerprints, photographs or other documents while operating pursuant to this chapter.

4. Impersonating, or permitting or aiding and abetting an employee to impersonate, a law enforcement officer or employee of the United States or any state or political subdivision of a state.

5. Knowingly violating, or advising, encouraging or assisting in the violation of, any statute, court order, warrant or injunction in the course of business as a licensee or registrant under this chapter.

6. Committing or knowingly permitting any employee to commit any violation of this chapter or rules adopted pursuant to this chapter.

7. Committing an act of misconduct involving a weapon pursuant to section 13-3102.

8. Conviction of a felony.

9. Conviction of any act of personal violence or force against any person or conviction of threatening to commit any act of personal violence or force against any person.

10. Fraud or wilful misrepresentation in applying for an original license or registration or the renewal of an existing license or registration.

11. Soliciting business for an attorney in return for compensation.

12. Conviction of any act constituting fraud.

13. Being on parole, on community supervision, on work furlough, on home arrest, on release on any other basis or named in an outstanding arrest warrant.

14. Serving a term of probation pursuant to a conviction for any act of personal violence or domestic violence as defined in section 13-3601 or an offense that has the same elements as a domestic violence offense listed in section 13-3601, subsection A.

15. Wilfully failing or refusing to render client services or a report as agreed between the parties and for which compensation has been paid or tendered pursuant to the agreement of the parties.

16. The unauthorized release of information acquired on behalf of a client by a licensee, associate or registrant as a result of activities regulated under this chapter.

17. Failing or refusing to cooperate with or refusing access to an authorized representative of the department engaged in an official investigation pursuant to this chapter.

18. Employing or contracting with any unregistered or improperly registered person or unlicensed or improperly licensed person or agency to conduct activities regulated under this chapter if the licensure or registration status was known or could have been ascertained by reasonable inquiry.

19. Permitting, authorizing, aiding or in any way assisting a registered employee to conduct services as described in this chapter on an independent contractor basis and not under the authority of the licensed agency.

20. Failing to maintain in full force and effect workers' compensation insurance, if applicable, or liability insurance as prescribed by section 32-2613, subsection C.

21. Conducting security guard services regulated by this chapter on an expired, revoked or suspended license or registration.

22. Accepting employment, contracting or in any way engaging in employment that has an adverse impact on security guard services being conducted on behalf of clients.

23. Advertising in a false, deceptive or misleading manner.

24. Failing to display on request the identification card issued by the department pursuant to section 32-2624.

25. Committing any act of unprofessional conduct.

26. Being arrested for any offense listed in this chapter that would disqualify the licensee, registrant or qualifying party or any of its associates, directors or managers from obtaining a license or registration.

27. Failing to maintain all qualifications as prescribed by sections 32-2612 and 32-2622, as applicable.

B. An officer, director, associate, partner, qualifying party, employee or manager of the holder of an agency license issued pursuant to this chapter who is found in violation of this chapter shall be denied the privilege of operating under such a license. The remaining officers, directors, associates, partners, employees or managers of such licensee who are innocent of such violations may carry on the business.

C. Any person aggrieved by a decision of the director may request a hearing pursuant to title 41, chapter 6, article 10. Except as provided in section 41-1092.08> subsection H, fmal decisions of the director are subject to judicial review pursuant to title 12, chapter 7, article 6.

D. On completion of an investigati the director:

1. May dismiss the case.

2. May take emergency action.

3. May issue a letter of concern, if applicable.

4. May forward the findings to the board for review and possible disciplinary action.

5. Shall place all records, evidence> fmdings and conclusions and any other information pertinent to the

investigation in the public records section of the file maintained at the department.

6. May suspend the license or registration of a person who isarrested for an offensethat is listed in this chapter and that would disqualify the person from obtaining a license or registration.

E. A letter of concern is apublic document and may be used in future disciplinary actions against a licensee or registrant.

F. If the department fmds,based on its investigatio that the public health, safety or welfare requires emergency actio the director may order a summary suspension of a license or registration pending proceedings for revocation or other action. Ifthe director issues this order,the department shall serve the licensee or registrant with a written notice of complaint and fonnal hearing, setting forth the charges made against the licensee or registrant and the licensee's or registrant'sright to a formal hearing before the board pursuant to title 41,chapter 6, article 10.

G. Ifthe department finds,based on its investigatio that a violation of subsection A of this section occurred, a hearing by the board may be scheduled pursuant to title 41, chapter 6, article 10. Notice of the hearing shall be sent by certified mail, return receipt requested, to the licensee's or registrant's last known address inthe department's files.

H.Based on information the board receives during ahearing pursuant to title 41,chapter 6, article 10, it may recommend to the director that the director:

1. Dismissthe complaint ifthe board believes it is without merit.

2. Fix a period and terms of probation best adapted to protect the public health and safety and to rehabilitate or educate the licensee or registrant.

3. Suspend the license or registration for a period of not more than twelve months.

4. Revoke the license or registration.

I. The director shall review the records of a finding by the board involving a disciplinary action and may affirm, reverse,adopt, modify, supplement, amend or reject the recommendation of the board. On a finding by the board and review and concurrence by the director that alicensee or registrant committed a violation of subsection A of this section, the probati suspension or revocation appliesto all licenses or registrations held by a licensee or registrant under chapter 24 of this title and this chapter.

32-2639. Authority to investigate complaint; filing and response to complaints; retention of records

A. The department may investigate any licensee, registrant, associate, employee or person if that licensee, registrant, associate, employee or person advertises as providing or performs services that require licensure or registration under this chapter.

B. The department shall investigate whether a licensee or registrant is engaged in activities that do not comply with or are prohibited by this chapter.

C. The department shall enforce this chapter without regard to the place or location in which a violation may have occurred.

D. On the complaint of any person or on its own initiative, the department may investigate any suspected violation of this chapter or the business and business methods of any licensee, registrant or employee of a licensee or applicant for licensure or registration under this chapter.

E. A complaint filed against any licensee, associate, registrant or employee of a licensee must be in writing, on a form prescribed by the department and filed with the department.

F. In any investigation by the department, each licensee, associate, registrant, applicant, agency or employee, on request of the department, shall provide records and truthfully respond to questions concerning activities regulated under this chapter. The licensee shall maintain these records for five years at the licensee's principal place of business or at another location for a person whose license has been terminate canceled or revoked. At the department's request, the licensee shall make the records available immediately to the department during normal business hours or at another time acceptable to the parties, unless the department grants an extension. The licensee shall provide copies of any records requested by the department.

32-2640. Grounds for refusal to issue or renew an agency license; judicial review; good cause exceptions

A. Except as provided in subsection E of this section, the department may deny the issuance or renewal of an agency license if the individual applicant or, if the applicant is other than an individual:, any qualifying party:

1. Does not meet the requirements prescribed in section 32-2612.

2. Has committed any act that, if committed by a licensee, would be grounds for the suspension or revocation of a license pursuant to this chapter.

3. Has been refused a license under this chapter, or had such a license revoked or has been an associate of any applicant or licensee who has been refused a license under this chapter or who has had a license revoked.

4. While not licensed under this chapter, has committed or aided and abetted the commission of any act for which a registration certificate is required by this chapter or has acted, or attempted to act, as a private security guard service or a security guard.

5. Has knowingly made any false statement in the application.

6. Failed to provide adequate verification of required experience.

B. The denial of the issuance of an agency license or identification card under this chapter shall be in writing and shall describe the basis for the denial. The denial notice shall inform the applicant that if the applicant desires a hearing by the board to contest the denial, the applicant shall submit the request in writing to the department within thirty calendar days after service of the denial. Service is complete on the mailing of the denial to the address listed on the application.

C. Except as provided in section 41-1092.08, subsection H:, final decisions of the director are subject to judicial review pursuant to title 12, chapter 7, article 6.

D. If an applicant is denied an agency license, the applicant may petition the board for a good cause exception.

E. If the board granted a licensee a good cause exception pursuant to section 32-2609, the department may not deny the licensee's renewal application based on factors already reviewed by the board when granting the good cause exception.

32-2641. Grounds for refusal to issue a securizy: guard identification card or registration certificate; judicial review; good cause exceptions

A. Except as provided in subsection F of this section, the department may deny the issuance of an identification card to an applicant for a security guard registration certificate or an anned security guard registration certificate if the applicant:

1. Does not meet the requirements prescribed in section 32-2622 for the appropriate type of certificate.

2. Has committed any act which would be grounds for the suspension or revocation of a security guard registration pursuant to this chapter.

3. Has knowingly made any statement which is false in the application.

B. If the director determines that an applicant's criminal history contains open arrest information, the director shall:

1. Issue a notice to the applicant allowing forty-five days for the applicant to provide documentation concerning the disposition of the arrest or arrests.

2. Send to the applicant at the applicant's last known residential address sufficient information to assist the applicant in complying with the director's request under paragraph 1 of this subsection.

C. The denial of the issuance of a registration certificate under this article shall be in writing and shall describe the basis for the denial. The denial notice shall inform the applicant that if the applicant desires a hearing by the board to contest the denial the applicant shall submit the request in writing to the department within thirty calendar days after service of the denial notice. Service is complete on the mailing of the denial to the address listed on the application.

D. Except as provided in section 41-1092.08, subsection H, final decisions of the director are subject to judicial review pursuant to title 12, chapter 7, article 6.

E. If an applicant is denied a registration certificate, the applicant may petition the board for a good cause exception.

F. If the board granted an applicant for a security guard registration certificate or an anned security guard registration certificate a good cause exception pursuant to section 32-2609, the department may not deny the person's renewal application based on factors already reviewed by the board when granting the good cause exception.

41-1072.Definitions

Inthis article,unless the context otherwise requires:

1. "Administrative completenessreview time frame" means the number of days from agency receipt of an application for a license until an agency determinesthat the application contains all components required by statute or rule, including all information required to be submitted by other government agencies.The administrative completenessreviewtime frame does not include the period oftime during which an agency providespublic notice of the license application or performs a substantive review ofthe application.

2. "Overall time frame" means the number of days after receipt of an application for a license during which an agency detennines whether to grant or deny a license. The overall time frame consists of both the administrative completenessreview time frame and the substantive review time frame.

3. "Substantive review time frame" means the number of days after the completion of the administrative completeness review time frame during which an agency determines whether an application or applicant for a license meets all substantive criteria required by statute or rule. Any publicnotice and hearings required by law shall fall within the substantive review time frame.

41-1713. Powers and duties of director; authentication of records

A. The director of the department shall:

1. Be the administrative head of the department.

2. Subject to the merit system rules, appoint, suspend, demote, promote or dismiss all other classified employees of the department on the recommendation of their respective division superintendent. The director shall determine and furnish the law enforcement merit system council established by section 41-1830.11 with a table of organization. The superintendent of each division shall serve at the concurrent pleasure of the director and the governor.

3. Except as provided in sections 12-119, 41-1304 and 41-1304.05, employ officers and other personnel as the director deems necessary for the protection and security of the state buildings and grounds in the governmental mall described in section 41-1362, state office buildings in Tucson and persons who are on any of those properties. Department officers may make arrests and issue citations for crimes or traffic offenses and for any violation of a rule adopted under section 41-796. For the purposes of this paragraph, security does not mean security services related to building operation and maintenance functions provided by the department of administration.

4. Make rules necessary for the operation of the department.

5. Annually submit a report of the work of the department to the governor and the legislature, or more often if requested by the governor or the legislature.

6. Appoint a deputy director with the approval of the governor.

7. Adopt an official seal that contains the words "department of public safety" encircling the seal of this state as part of its design.

8. Investigate, on receipt, credible evidence that a licensee or registrant has been arrested for, charged with or convicted of an offense that would preclude the person from holding a license or registration certificate issued pursuant to title 32, chapter 26.

9. Cooperate with the Arizona-Mexico commission in the governor's office and with researchers at universities in this state to collect data and conduct projects in the United States and Mexico on issues that are within the scope of the department's duties and that relate to quality of life, trade and economic development in this state in a manner that will help the Arizona-Mexico commission to assess and enhance the economic competitiveness of this state and of the Arizona-Mexico region.

10. Adopt and administer the breath, blood or other bodily substances test rules pursuant to title 28, chapter 4.

11. Develop procedures to exchange information with the department of transportation for any purpose related to sections 28-1324, 28-1325, 28-1326, 28-1462 and 28-3318.

12. Collaborate with the state forester in presentations to legislative committees on issues associated with wildfire prevention, suppression and emergency management as provided by section 37-622, subsection B.

B. The director may:

1. Issue commissions to officers of the department.

2. Request the cooperation of the utilities, communication media and public and private agencies and any sheriff or other peace officer in any county or municipality, within the limits of their respective jurisdictions when necessary, to aid and assist in the performance of any duty imposed by this chapter.

3. Cooperate with any public or private agency or person to receive or give necessary assistance and may contract for such assistance subject to legislative appropriation controls.

4. Utilize the advice of the board and cooperate with sheriffs, local police and peace officers within the state for the prevention and discovery of crimes, the apprehension of criminals and the promotion of public safety.

5. Acquire in the name of the state, either in fee or lesser estate or interest, all real or any personal property that the director considers necessary for the department's use, by purchase, donation, dedication, exchange or other lawful means. All acquisitions of personal property pursuant to this paragraph shall be made as prescribed in chapter 23 of this title unless otherwise provided by law.

6. Dispose of any property, real or personal,, or any right, title or interest in the property, when the director detennines that the property is no longer needed or necessary for the department's use. Disposition of personal property shall be as prescribed in chapter 23 of this title. The real property shall be sold by public auction or competitive bidding after notice published in a daily newspaper of general circulation, not less than three times, two weeks before the sale and subject to the approval of the director of the department of administration. When real property is sol it shall not be sold for less than the appraised value as established by a competent real estate appraiser. Any monies derived from the disposal of real or personal property shall be deposited, pursuant to sections 35-146 and 35-147, in the Arizona highway patrol fund as authorized by section 41-1752, subsection B, paragraph 6.

7. Sell, lend or lease personal property directly to any state, county or local law enforcement agency. Personal property may be sold or leased at a predetennined price without competitive bidding. Any state, county or local law enforcement agency receiving personal property may not resell or lease the property to any person or organization except for educational purposes.

8. Dispose of surplus property by transferring the property to the department of administration for disposition to another state budget unit or political subdivision if the state budget unit or political subdivision is not a law enforcement agency.

9. Lease or rent personal property directly to any state law enforcement officer for the purpose of traffic safety, traffic control or other law enforcement related activity.

10. Sell for one dollar, without public bidding, the department issued handgun or shotgun to a department officer on duty related retirement pursuant to title 38, chapter 5, article 4. Any monies derived from the sale of the handgun or shotgun to the retiring department officer shall be deposited, pursuant to sections 35-146 and 35-147, in the Arizona highway patrol fund as authorized by section 41-1752, subsection B, paragraph 6.

11. Conduct state criminal history records checks for the purpose of updating and verifying the status of current licensees or registrants who have a license or certificate issued pursuant to title 32, chapter 26. The director shall investigate, on receipt, credible evidence that a licensee or registrant has been arrested for,, charged with or convicted of an offense that would preclude the person from holding a registration certificate issued pursuant to title 32, chapter 26.

12. Grant a maximum of two thousand eighty hours of industrial injury leave to any sworn department employee who is injured in the course of the employee's duty, any civilian department employee who is injured in the course of performing or assisting in law enforcement or hazardous duties or any civilian department employee who was injured as a sworn department employee rehired after August 9, 2001 and would have been eligible pursuant to this paragraph and whose work-related injury prevents the employee from performing the normal duties of that employee's classification. This industrial injury leave is in addition to any vacation or sick leave earned or granted to the employee and does not affect the employee's eligibility for any other benefits, including workers' compensation. The employee is not eligible for payment pursuant to section 38-615 of industrial injury leave that is granted pursuant to this paragraph. Subject to approval by the law enforcement merit system council, the director shall adopt rules and procedures regarding industrial injury leave hours granted pursuant to this paragraph.

13. Sell at current replacement cost, without public bidding, the department issued badge of authority to an officer of the deparbnent on the officer's promotion or separation from the deparbnent. Any monies derived from the sale of the badge to an officer shall be deposited, pursuant to sections 35-146 and 35-147, in the department of public safety administration fund to offset replacement costs.

C. The director and any employees of the department that the director designates in writing may use the seal adopted pursuant to subsection A, paragraph 7 of this section to fully authenticate any department records and copies of these records. These authenticated records or authenticated copies of records shall be judicially noticed and shall be received in evidence by the courts of this state without any further proof of their authenticity.

ARIZONA RADIATION REGULATORY AGENCY (R-16-0201)

Title 12, Chapter 1, Article 1, General Provisions; Article 3, Radioactive Material Licensing; Article 4, Standards for Protection against Ionizing Radiation; Article 5, Sealed Source Industrial Radiography; Article 7, Medical Uses of Radioactive Material; Article 13, License and Registration Fees; Article 15, Transportation; Article 19 (Proposed), Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material

Amend: R12-1-102; R12-1-303; R12-1-306; R12-1-308; R12-1-311; R12-1-313; R12-1-320; R12-1-323; R12-1-418; R12-1-452; R12-1-503; R12-1-703; R12-1-1302; R12-1-1512

New Section: R12-1-1901; R12-1-1903; R12-1-1905; R12-1-1907; R12-1-1909; R12-1-1911; R12-1-1915; R12-1-1917; R12-1-1919; R12-1-1921; R12-1-1923; R12-1-1925; R12-1-1927; R12-1-1929; R12-1-1931; R12-1-1933; R12-1-1941; R12-1-1943; R12-1-1945; R12-1-1947; R12-1-1949; R12-1-1951; R12-1-1953; R12-1-1955; R12-1-1957; R12-1-1971; R12-1-1973; R12-1-1975; R12-1-1977; R12-1-1979; R12-1-1981; R12-1-19101; R12-1-19103; R12-1-19105; R12-1-19107; R12-1-19109; Appendix A

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-1**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Chris Kleminich, Staff Attorney

DATE: January 15, 2016

SUBJECT: **ARIZONA RADIATION REGULATORY AGENCY (R-16-0201)**
Title 12, Chapter 1, Article 1, General Provisions; Article 3, Radioactive Material Licensing; Article 4, Standards for Protection against Ionizing Radiation; Article 5, Sealed Source Industrial Radiography; Article 7, Medical Uses of Radioactive Material; Article 13, License and Registration Fees; Article 15, Transportation; Article 19 (Proposed), Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material

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General Comments

Purpose of the Agency and Summary of What the Rulemaking Does

The purpose of the Arizona Radiation Regulatory Agency (Agency) is "to protect the public health and safety by regulating the use and sources of radiation in order to provide for:

1. The use of demonstrably safe methods and procedures relating to radiation.

2. The exposure to sources of radiation to levels as low as is reasonably achievable by means of good planning, practice and enforcement."

Laws 2006, Ch. 60, § 3.

This rulemaking adds 36 new rules, adds one new appendix, and amends 14 existing rules in A.A.C. Title 12, Chapter 1. In addition to updating and clarifying some of its existing rules, the Agency is creating a new Article 19 related to physical protection of category 1 and category 2 quantities of radioactive material. Article 19 is mostly comprised of security requirements that are mandated by the Agreement State document that Arizona entered into with the U.S. Nuclear Regulatory Commission[1] (NRC) in 1967. As an "agreement state", Arizona has been delegated authority to regulate nuclear material if it remains compatible with national standards of protection by substantially adopting rule language used by the NRC. In addition, A.R.S. § 30-654(B)(6) requires the Agency's radiation protection and radiation dose standards "to be as nearly as possible in conformity with, and in no case inconsistent with," NRC regulations.

Article Contents, Including the Subject Matter of Each Rule Affected

Article 1 contains seven rules, one of which is amended by this rulemaking, that relate to general provisions. Section 102 addresses definitions.

Article 3 contains 23 rules, seven of which are amended by this rulemaking, that relate to radioactive material licensing. The amended rules relate to radioactive material other than source material and exemptions; general licenses for radioactive material other than source material; filing applicants for specific licenses; special requirements for a specific license to manufacture, assemble, repair, or distribute commodities, products, or devices that contain radioactive material; specific terms and conditions; reciprocal recognition of licenses; and financial assurance and recordkeeping for decommissioning.

Article 4 contains 56 rules, two of which are amended by this rulemaking, that relate to standards for protection against ionizing radiation. The amended rules relate to surveys and monitoring; and radiological criteria for license termination.

Article 5 contains 29 rules, one of which is amended by this rulemaking, that relate to sealed source industrial radiography. Section 503 addresses performance requirements for equipment.

Article 7 contains 48 rules, one of which is amended by this rulemaking, that relate to medical uses of radioactive material. Section 703 addresses license for medical use of radioactive material.

Article 13 contains nine rules, one of which is amended by this rulemaking, that relate to license and registration fees. Section 1302 addresses license and registration categories.

[1] The NRC was formerly known as the Atomic Energy Commission.

Article 15 contains 14 rules, one of which is amended by this rulemaking, that relate to transportation. Section 1512 addresses advance notification of shipment of irradiated reactor fuel and nuclear waste.

Article 19 is created by this rulemaking, and contains 36 rules and one appendix that relate to physical protection of category 1 and category 2 quantities of radioactive material. the rules address purpose; scope; definitions; communications; interpretations; specific exemptions; personnel access authorization requirements for category 1 or category 2 quantities of radioactive material; access authorization program requirements; background investigations; requirements for criminal history records checks of individuals granted unescorted access to category 1 or category 2 quantities of radioactive material; relief from fingerprinting, identification, and criminal history records checks and other elements of background investigations for designated categories of individuals permitted unescorted access to certain radioactive materials; protection of information; access authorization program review; security program; general security program requirements; local law enforcement agency (LLEA) coordination; security zones; monitoring, detection, and assessment; maintenance and testing; requirements for mobile devices; security program review; reporting of events; additional requirements for transfer of category 1 and category 2 quantities of radioactive material; applicability of physical protection of category 1 and category 2 quantities of radioactive material during transit; preplanning and coordination of shipment of category 1 or category 2 quantities of radioactive material; advance notification of shipment of category 1 quantities of radioactive material; requirements for physical protection of category 1 and category 2 quantities of radioactive material during shipment; reporting of events; form of records; record retention; inspections; violations; criminal penalties; and category 1 and category 2 radioactive materials.

Year that Each Rule was Last Amended or Newly Made

- **2015:** Section 1302
- **2014:** Sections 102, 303, 306, 308, 311, 313, 320, 703
- **2009:** Sections 323, 1512
- **2006:** Section 418
- **2004:** Sections 452, 503

Proposed Action

The following is a non-exhaustive summary of the actions being taken by the Agency in this rulemaking:

<u>Amended Rules</u>

- Section 102: The Agency is updating its definitions for the chapter.
- Section 303: Clarifying changes are being made to the portions of the rule that relate to self-luminous products containing tritium, krypton-85, or promethium-147, and gas and aerosol detectors containing radioactive material. A new subsection (B)(4), related to certain industrial devices, is being added.

- Section 306: Subsection (A), addressing the scope of the rule, is being deleted. Corresponding citation changes are being made throughout the rule.
- Section 308: In subsection (G), the incorporation by reference of 10 CFR 32.210(c), as of January 1, 2013, is being amended to incorporate the entirety of 10 CFR 32.210, as of January 1, 2015. 10 CFR 32.210 relates to Sealed Source and Device Registration. In addition, a new subsection (H), related to inactivation of certificates of registration of sealed sources and devices, is being added.
- Section 311: 10 CFR 32.53, 32.54, 32.55, 32.56 32.57, 32.58, 32.59, 32.61, 32.62, 32.74, and 70.39, previously incorporated by reference as of January 1, 2013, will now be incorporated as of January 1, 2015. Clarifying and technical changes are also being made.
- Section 313: This rule, addressing specific terms and conditions for licensees, is being updated to reflect changes made elsewhere in the rules.
- Section 320: Two citations are being updated.
- Section 323: 10 CFR 30.35, 40.36, and 70.25, previously incorporated by reference as of January 1, 2008, will now be incorporated as of January 1, 2015. The Agency is also adding requirements for decommissioning funding plans, and for recordkeeping.
- Section 418: Clarifying changes are being made to the language of the rule.
- Section 452: This rule, addressing radiological criteria for license termination, is being updated.
- Section 503: 10 CFR 71, related to packaging and transportation of radioactive material, and previously incorporated by reference as of January 1, 2003, will now be incorporated as of January 1, 2015.
- Section 703: Three citations are being updated.
- Section 1302: 10 CFR 61, related to licensing requirements for land disposal of radioactive waste, and previously incorporated by reference as of January 1, 2003, will now be incorporated as of January 1, 2015.
- Section 1512: 10 CFR 71.97, related to advance notification of shipment of irradiated reactor fuel and nuclear waste, and previously incorporated by reference as of January 1, 2003, will now be incorporated as of January 1, 2015.

<u>New Rules</u>

- Section 1901: States the Agency's purpose for establishing the article.
- Section 1903: Relates to the scope of the rules within the article.
- Section 1905: Defines terms used throughout the article.
- Section 1907: Provides methods by which communications and reports may be submitted to the Agency.
- Section 1909: Indicates that, unless otherwise authorized, no interpretations of the meaning of the rules in this article, by any officer or employee of the Agency other than the Agency's Assistant Attorney General, are binding upon the Agency.
- Section 1911: Provides the Agency with authority to grant specific exemptions from the rules if the Agency determines that an exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest.

- Section 1921: Establishes personnel access authorization requirements for category 1 or category 2 quantities of radioactive material.
- Section 1923: Establishes detailed access authorization program requirements.
- Section 1925: Relates to procedures that licensees must follow when performing background investigations of individuals seeking unescorted access to category 1 or category 2 quantities of radioactive material.
- Section 1927: Establishes requirements for criminal history records checks of individuals granted unescorted access to category 1 or category 2 quantities of radioactive material.
- Section 1929: Relates to exceptions from fingerprinting, identification, and criminal history records checks and other elements of background investigations for designated categories of individuals permitted unescorted access to certain radioactive materials.
- Section 1931: Establishes guidelines for protecting the personal information of individuals licensees obtain under this article.
- Section 1933: Provides for the review, by licensees, of their access authorization programs.
- Section 1941: Provides general information about the security programs that licensees must establish, maintain, and implement.
- Section 1943: Relates to general security program requirements, including the development of written security plans, implementation of procedures, and requirements for training.
- Section 1945: Relates to licensee coordination with local law enforcement agencies (LLEAs).
- Section 1947: Establishes requirements for the establishment of “security zones” within which all aggregated category 1 and category 2 quantities of radioactive material are to be used or stored.
- Section 1949: Relates to a licensee’s ability to monitor, detect, and assess its security zones.
- Section 1951: Relates to a licensee’s ability to maintain and test its security zones.
- Section 1953: Establishes requirements for licensees that possess mobile devices containing category 1 or category 2 quantities of radioactive material.
- Section 1955: Relates to a licensee’s responsibility to review its security program for compliance with these rules.
- Section 1957: Provides procedures for the reporting of various events, such as unauthorized entry into a security zone, and suspicious activity.
- Section 1971: Provides additional requirements for the transfer of category 1 and category 2 quantities of radioactive material.
- Section 1973: Relates to the physical protection of category 1 and category 2 quantities of radioactive material during transit.
- Section 1975: Relates to preplanning and coordination of shipments of category 1 or category 2 quantities of radioactive material.
- Section 1977: Requires licensees to provide advance notification, to the Agency and the governor, or the governor's designee, of a shipment of a category 1 quantity of radioactive material through, or across, the boundary of the state.
- Section 1979: Provides requirements for the physical protection of category 1 and category 2 quantities of radioactive material during shipment.

- Section 1981: Provides procedures for the reporting of various events, such as lost or missing shipments of category 1 or category 2 quantities of radioactive material.
- Section 19101: Relates to required methods of recordkeeping.
- Section 19103: Relates to required methods of record retention.
- Section 19105: Establishes the Agency's authority to inspect the facilities and records of licensees.
- Section 19107: Relates to the Agency's authority to prevent violations of the rules.
- Section 19109: Relates to criminal penalties that may be imposed for violations of the rules.
- Appendix A: Provides the numeric values that determine whether particular quantities of various radioactive materials reach category 1 or category 2 thresholds.

Summary of Reasons for the Proposed Action

As noted above, the Agency believes that this rulemaking is necessary for Arizona to be in compliance with NRC regulations.

Exemption or Request and Approval for Exception from the Moratorium

The Agency received an exception from Executive Order 2015-01 on September 15, 2015.

Substantive or Procedural Concerns

None.

1. Are the rules legal, consistent with legislative intent, and within the agency's statutory authority?

Yes. As general authority for the rules, the Agency cites to A.R.S. § 30-654(B)(5), under which the Agency shall "[a]dopt rules deemed necessary to administer this chapter in accordance with title 41, chapter 6."

The Agency also cites to a number of statutes that provide specific statutory authority for the rules. Of particular note is A.R.S. § 30-654(B)(6), which, as stated above, requires the Agency's radiation protection and radiation dose standards "to be as nearly as possible in conformity with, and in no case inconsistent with," NRC regulations.

2. Are the rules written in a manner that is clear, concise, and understandable to the general public?

Yes. The rules are generally clear, concise, and understandable.

3. Does the agency adequately address the comments on the proposed rules and any supplemental proposals?

Yes. The Agency received the attached document from the NRC on November 6, 2015, containing ten comments:

- The first comment requested that the Agency adopt additional restrictions in R12-1-418(E). The Agency accepts the NRC's comment, but is not adopting the restrictions in this particular rulemaking. The Agency believes that the changes would be substantial substantive changes requiring supplemental public notice, and will be considered in a future rulemaking.
- The second and third comments relate to incorporated material already found in R12-1-323(C). For the portions already adopted, the Agency agreed to update the incorporated material to comply with the comments. A portion of the third comment related to plutonium and uranium enrichment facility licenses, and was not adopted at this time. Arizona does not currently have any licensed facilities that would be governed by the rules. If the state were to grant a license for this type of facility, it would adopt the rules at that time.
- With regard to the fourth comment, Arizona does not have any large industrial irradiators under its jurisdiction, so the NRC's comment will not be adopted at this time. If the state were to receive a request for this type of license, it would adopt verbiage related to financial assurance at that time.
- The fifth comment would require revisions to A.A.C. Title 12, Chapter 1, Article 17 that were not covered in this rulemaking. The revisions will be addressed in a later rulemaking.
- The sixth comment relates to certificates issued to entities on the sealed source device registry. Arizona does not have multiple entities of this type licensed at this time. Upon receipt of an application for this type of license, the Agency would adopt verbiage related to financial assurance.
- The seventh comment asked the Agency to define "carriers" as listed in 10 CFR 30.13. The Agency has defined the term under R12-1-102, as it applies to the chapter rather than just one article. The Agency believes that this action should satisfy the intent of the comment
- The eighth comment relates to notification of reactor fuel transport across the state, and would require the amendment of R12-1-1512. The Agency believes that the changes would be substantial substantive changes requiring supplemental public notice, and will be considered in a future rulemaking.
- The ninth comment related to a missing portion of Appendix A that contains an explanation of six abbreviations and a formula. This content has been added, as the intent of this Appendix is to match the code of federal regulations.
- The tenth comment was to update the federal mail stop address. The Agency indicates that the address does not appear to differ from what was noticed in the proposed rules, so no action has been taken.

4. Are the final rules a substantial change, considered as a whole, from the proposed rules and any supplemental proposals?

No. Only non-substantive technical and clarifying changes have been made by the Agency.

5. Does the preamble disclose a reference to any study relevant to the rules that the agency reviewed and either did or did not rely on in the agency's evaluation of or justification for the rules?

The Agency indicates that it did not review any study relevant to the rules.

6. Are the rules more stringent than corresponding federal law and, if so, is there statutory authority that allows the agency to exceed the requirements of federal law?

No. The Agency indicates that the rules are not more stringent than corresponding federal law.

7. Do the rules require a permit or license and if so, does the agency use a general permit or is any exception applicable under A.R.S. § 41-1037?

Yes. The Agency indicates that it does not use a general permit. The Agency states that the exception in A.R.S. § 41-1037(A)(3) applies, as the issuance of a general permit would not meet the requirement of protecting public health and safety within A.R.S. § 30-672.

8. Do the rules establish a new fee or contain a fee increase?

No. The rules do not establish a new fee or contain a fee increase.

9. Conclusion

The Agency requests the usual 60-day delayed effective date for the rules. This analyst recommends approval of the rules.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-1**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA RADIATION REGULATORY AGENCY (R-16-0201)**
Title 12, Chapter 1, Article 1, General Provisions; Article 3, Radioactive Material Licensing; Article 4, Standards for Protection against Ionizing Radiation; Article 5, Sealed Source Industrial Radiography; Article 7, Medical Uses of Radioactive Material; Article 13, License and Registration Fees; Article 15, Transportation; Article 19 (Proposed), Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material

Amend: R12-1-102; R12-1-303; R12-1-306; R12-1-308; R12-1-311; R12-1-313; R12-1-320; R12-1-323; R12-1-418; R12-1-452; R12-1-503; R12-1-703; R12-1-1302; R12-1-1512

New Section: R12-1-1901; R12-1-1903; R12-1-1905; R12-1-1907; R12-1-1909; R12-1-1911; R12-1-1915; R12-1-1917; R12-1-1919; R12-1-1921; R12-1-1923; R12-1-1925; R12-1-1927; R12-1-1929; R12-1-1931; R12-1-1933; R12-1-1941; R12-1-1943; R12-1-1945; R12-1-1947; R12-1-1949; R12-1-1951; R12-1-1953; R12-1-1955; R12-1-1957; R12-1-1971; R12-1-1973; R12-1-1975; R12-1-1977; R12-1-1979; R12-1-1981; R12-1-19101; R12-1-19103; R12-1-19105; R12-1-19107; R12-1-19109; Appendix A

I reviewed the economic, small business, and consumer impact statement (EIS) and make the following comments. These comments are made to assist the Council in its review and may be used as the Council determines.

GRRC Economist comments:

The amendments made by the Agency are intended to conform to security requirements mandated by agreement with the U.S. Nuclear Regulatory Commission (NRC). Failure to amend the Agency's rules in compliance with that agreement could result in jurisdiction of regulatory

authority being returned to the NRC, which will result in regulatory fees more than doubling (150% increase). In addition, if Arizona's regulatory jurisdiction ended, onsite response for incidents and emergencies would be removed.

Currently, there are approximately 365 licensees, 8,500 certified technologists, 200 industrial radiographers, and 250 physicists in Arizona that are potentially impacted by these rules.

The Agency has certified that the Joint Legislative Budget Committee has not been notified because the number of new full-time employees necessary to implement and enforce the rule is zero. Notice of new FTEs is required by A.R.S. § 41-1055(B)(3)(a).

1. **Costs and Benefits for:**

a. The implementing agency:

The amendments will result in minimal implementation costs for the Agency, and will benefit the Agency by ensuring that Arizona meets the obligations set forth in its agreement with the NRC.

b. Political subdivisions:

The Agency indicates that the amendments have no direct economic impact on political subdivisions.

c. Businesses:

The amendments will result in little or no direct compliance costs for businesses. New costs would be associated with fingerprinting individuals every 10 years, and with the retention of security clearance documents. Amendments pertaining to financial assurances by businesses that possess quantities of radioactive material that have the potential to contaminate are already required as a condition of the licenses that are issued. The Agency indicates that the amendments will result in benefits to businesses due to increased clarity and understandability in the rule language.

d. Small businesses:

The amendments will result in little or no compliance costs for small businesses. New costs would be associated with fingerprinting individuals every 10 years, and with retention of security clearance documents. Small businesses potentially impacted by the proposed rulemaking include industrial, pharmaceutical, dental, podiatry, veterinary, chiropractic, medical, and hospital facilities that use or possess radioactive materials.

e. Consumers directly affected by the rulemaking:

The public and consumers are not directly affected by this rulemaking. However, the public indirectly benefits from having rules in place that provide a minimum level of protection necessary to operate and to safeguard the public against unnecessary exposure to radiation.

2. Do the probable benefits outweigh the probable costs?

Based on the information provided, the Agency indicates that the benefits to amending the rules outweigh the probable costs. As discussed above, the amendments reduce the overall regulatory burden by adding additional clarity, and by conforming to NRC requirements.

3. Analysis of methods to reduce the small business impact:

The amendments are designed to have the least impact possible on small business while still allowing the Agency to fulfill its statutory responsibilities. The Agency indicates that the amendments provide the minimum protection level to operate and keep the public safe and prevent unnecessary exposure to radiation.

4. The probable effect on state revenues:

The Agency anticipates that the amendments will have no impact on state revenues.

5. Analysis of any less intrusive or less costly alternative methods:

The Agency did not consider other alternatives, as it indicates that the proposed amendments represent the most cost effective and efficient method of complying with the NRC agreement stipulations.

6. Whether an analysis was submitted to the agency regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states:

No business competitiveness analysis was submitted to the Agency.

7. A description of any data on which a rule is based with an explanation of how the data was obtained and why the data is acceptable data, and the methods used by the agency to evaluate the costs and benefits in the EIS.

The Agency indicates that no outside data or studies were used.

8. Conclusion:

The submitted economic, small business and consumer impact statement is generally accurate, and contains the information required for compliance with A.R.S. §§ 41-1035, 41-1052(D)(1-3), and 41-1055. This analyst recommends that the rules be approved.

ARIZONA RADIATION REGULATORY AGENCY

Douglas A. Ducey
Governor

Aubrey V. Godwin
Director

November 24, 2015

Mr. Bret Parke, GRRC Chair
Governor's Regulatory Review Council
1400 W. Washington, Room 220
Phoenix, Arizona 85007

Dear Mr. Parke:

Enclosed are the original and two copies of the final rulemaking package for Title 12, Chapter 1, Articles 1, 3, 4, 5, 7, 13, 15 and 19. The close of record was November 17, 2015. In this package new rules will be added to Title 12 as part of the Agency's continuing effort to incorporate changes resulting from advances in technology and machine safety. The Agency is authorized to complete the rulemaking by A.R.S. § 30-651 et seq., as well as by approval of the Governor's office by e-mail dated and supplied to the Secretary of State's office upon opening of the docket and publication of the proposed rulemaking. An electronic copy of this e-mail has been supplied to council staff per their request. This rulemaking activity is not specifically related to a 5year review report in its entirety.

The amended existing rules and the new rules were adopted by the Agency, following the public hearing on November 17, 2015. Comments and recommendations provided by the public 9U.S. Nuclear Regulatory Commission) and the Arizona Radiation Regulatory Hearing Board (ARRHB) have been reviewed and appropriate changes made. No new FTE's were needed for this rulemaking package so additional notice was not sent to Joint Legislative Budget Committee (JLBC). The Agency is not requesting an immediate effective date for this rulemaking package.

This rulemaking relates to compatibility requirements listed by the U.S. NRC and includes modifications consistent with the five year reports for Articles 1 and 15 that were approved July 2011; Article 3 approved May 2013, Article 4 approved July 2014; Article 5 approved November 2013; Article 7 approved March 2012; and Article 13 approved January 2012. Additionally, the security requires listed in these reports were moved to a new Article numbered Article 19. Items listed in the reports that were are not addressed in this rulemaking action during the current rules moratorium will be addressed in a separate package at a later date.

In conclusion, I certify that no studies were reviewed in the preparation of this package. After ARRHB reviewed and made the associated requested changes discussed at a public meeting on November 17, 2015 the ARRHB approved the rules contained in this package on November 17, 2015 accordance with §30-655(D).

The following information is provided for your review:

4814 South 40th Street • Phoenix, Arizona 85040-2940 • Telephone (602) 255-4845 • Fax (602) 437-0705
www.azrra.gov

- Notice of Rulemaking Docket Opening: 21 A.A.R. 2295, October 9, 2015
- Notice of Proposed Rulemaking: 21 A.A.R. 2358, October 16, 2015

The following documents are provided according to R1-6-201:

- Notice of Final Rulemaking, Preamble, and rule revisions contained in Article 12 and 13.
- Economic, Small Business and Consumer Impact Statement.
- Written comments received from the public related to the rulemaking.
- Electronic recorded meeting notes maintained by the Agency for the public hearing.
- Electronic links to incorporated code of federal regulations.
- Hard copy version of "Radiological Safety for the Design and Construction of Apparatus for Gamma radiation".
- General and specific statutes authorizing the changes.

Sincerely,

Aubrey V. Godwin
Director

NOTICE OF FINAL RULEMAKING

TITLE 12. NATURAL RESOURCES

CHAPTER 1. RADIATION REGULATORY AGENCY

ARTICLE 1. GENERAL PROVISIONS

ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

ARTICLE 5. SEALED SOURCE INDUSTRIAL RADIOGRAPHY

ARTICLE 7. MEDICAL USES OF RADIOACTIVE MATERIAL

ARTICLE 13. LICENSE AND REGISTRATION FEES

ARTICLE 15. TRANSPORTATION

ARTICLE 18. RESERVED

ARTICLE 19. PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

PREAMBLE

1.	**Sections Affected**	**Rulemaking Action**
	R12-1-102	Amend
	R12-1-303	Amend
	R12-1-306	Amend
	R12-1-308	Amend
	R12-1-311	Amend

R12-1-313	Amend
R12-1-320	Amend
R12-1-323	Amend
R12-1-418	Amend
R12-1-452	Amend
R12-1-503	Amend
R12-1-703	Amend
R12-1-1302	Amend
R12-1-1512	Amend
R12-1-1901	New
R12-1-1902	Reserved
R12-1-1903	New
R12-1-1904	Reserved
R12-1-1905	New
R12-1-1906	Reserved
R12-1-1907	New
R12-1-1908	Reserved
R12-1-1909	New
R12-1-1910	Reserved
R12-1-1911	New
R12-1-1912	Reserved
R12-1-1913	Reserved
R12-1-1914	Reserved

R12-1-1915	Reserved
R12-1-1916	Reserved
R12-1-1917	Reserved
R12-1-1918	Reserved
R12-1-1919	Reserved
R12-1-1920	Reserved
R12-1-1921	New
R12-1-1922	Reserved
R12-1-1923	New
R12-1-1924	Reserved
R12-1-1925	New
R12-1-1926	Reserved
R12-1-1927	New
R12-1-1928	Reserved
R12-1-1929	New
R12-1-1930	Reserved
R12-1-1931	New
R12-1-1932	Reserved
R12-1-1933	New
R12-1-1934	Reserved
R12-1-1935	Reserved
R12-1-1936	Reserved
R12-1-1937	Reserved

R12-1-1938	Reserved
R12-1-1939	Reserved
R12-1-1940	Reserved
R12-1-1941	New
R12-1-1942	Reserved
R12-1-1943	New
R12-1-1944	Reserved
R12-1-1945	New
R12-1-1946	Reserved
R12-1-1947	New
R12-1-1948	Reserved
R12-1-1949	New
R12-1-1950	Reserved
R12-1-1951	New
R12-1-1952	Reserved
R12-1-1953	New
R12-1-1954	Reserved
R12-1-1955	New
R12-1-1956	Reserved
R12-1-1957	New
R12-1-1958	Reserved
R12-1-1959	Reserved
R12-1-1960	Reserved

R12-1-1961	Reserved
R12-1-1962	Reserved
R12-1-1963	Reserved
R12-1-1964	Reserved
R12-1-1965	Reserved
R12-1-1966	Reserved
R12-1-1967	Reserved
R12-1-1968	Reserved
R12-1-1969	Reserved
R12-1-1970	Reserved
R12-1-1971	New
R12-1-1972	Reserved
R12-1-1973	New
R12-1-1974	Reserved
R12-1-1975	New
R12-1-1976	Reserved
R12-1-1977	New
R12-1-1978	Reserved
R12-1-1979	New
R12-1-1980	Reserved
R12-1-1981	New
R12-1-1982	Reserved
R12-1-1983	Reserved

R12-1-1984	Reserved
R12-1-1985	Reserved
R12-1-1986	Reserved
R12-1-1987	Reserved
R12-1-1988	Reserved
R12-1-1989	Reserved
R12-1-1990	Reserved
R12-1-1991	Reserved
R12-1-1992	Reserved
R12-1-1993	Reserved
R12-1-1994	Reserved
R12-1-1995	Reserved
R12-1-1996	Reserved
R12-1-1997	Reserved
R12-1-1998	Reserved
R12-1-1999	Reserved
R12-1-19100	Reserved
R12-1-19101	New
R12-1-19102	Reserved
R12-1-19103	New
R12-1-19104	Reserved
R12-1-19105	New
R12-1-19106	Reserved

R12-1-19107	New
R12-1-19108	Reserved
R12-1-19109	New
Appendix A	New
Table 1	New

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statute:

A.R.S. § 30-654(B)(5)

Implementing statutes:

A.R.S. §§ 30-651, 30-654, 30-657, 30-671(B), 30-672, 30-673, 30-681, 30-687, 30-688, and 30-689.

3. The effective date of the rule:

The effective date shall be 60 days after filing with the Office of the Secretary of State as stipulated in §41-1032(A).

4. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the proposed rule:

Notice of Rulemaking Docket Opening: 21 A.A.R. 2295, October 9, 2015

Notice of Proposed Rulemaking: 21 A.A.R. 2358, October 16, 2015

5. The agency's contact person who can answer questions about the rulemaking:

Name: Jerry W. Perkins

Address: Arizona Radiation Regulatory Agency

4814 South 40th Street

Phoenix, Arizona 85040

Telephone: (602) 255-4833

Fax: (602) 437-0705

E-mail: jperkins@azrra.gov

Website: www.azrra.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

This rulemaking package amends several rules to create security requirements mandated by the Agreement State document that Arizona entered into with the U.S. Nuclear Regulatory Commission (formerly the Atomic Energy Commission) authorized by A.R.S. §30-656 authorizing the governor of Arizona to enter into the agreement. In accordance with Public Law 83-703, Title 1- Atomic Energy, Chapter 19, Section 274, as well as Article VI of the Agreement signed the 30th day of March 1967 by Jack Williams, Governor of Arizona [F.R. Doc. 67-4212; Filed, Apr. 17, 1967 8:48 a.m.], Agreement States delegated authority to regulate nuclear material will substantially adopt the rules and language used by the U.S. NRC in order to be compatible nationally to standards of protection. In addition, A.R.S. §30-654(B)(6) requires the Agency to be as nearly as possible in conformity with the regulations of the NRC.

7. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

None

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. The preliminary summary of the economic, small business, and consumer impact: summary of the economic, small business, and consumer impact:

Currently, all registrants pay an annual fee which covers the administrative cost and inspection fees for each facility number. New fees will be specific to the cost of requesting fingerprinting reports form the Federal Bureau of Investigation. In many examples this fee is $15 to $40 per person. No new FTE's were needed for this rulemaking package so additional notice was not sent to the Joint Legislative Budget Committee (JLBC).

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

The definition of "carrier" as noticed in the proposed rules under R12-1-1905 was relocated to R12-1-102 alphabetically in order to clarify that term for the entire chapter and to address a comment made by board member Wong of the Arizona

Radiation Regulatory Hearing Board. Additionally, R12-1-323(C) was updated to include the incorporated material from the 2015 version of the 10 CFR 30.25 in order to address comment number 2 and the first half of comment number 3 from written comments supplied by the U.S. NRC as required for compatibility programs for adoption or amendment of rules related to radioactive materials. Six abbreviation explanations and a formula that was missing in Appendix A of Article 19 were added to address comment number nine from the NRC related to this rulemaking package. A clarification to the wording from effectiveness to commitment as appropriate as well as the addition of the missing term "plan" to R12-1-313(F) was made to address a comment from member Ray of the Radiation Regulatory Hearing Board. R12-1-311(D)'s incorporated material was updated from 2013 to 2015 to remain consistent with other modifications to rules in this package as the reference in that rule was already being amended. Non-substantive technical changes have also been made at the request of GRRC staff.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agencies response to the comments:

Agency received comments from the U.S. Nuclear Regulatory Commission in a document dated November 6, 2015 that included 10 comments related to the proposed rules in Rulemaking 0078. The first comment requested that the Agency adopt additional restrictions in R12-1-418(E) that were not adopted at this time as the Agency believes the request to be substantive requiring notice to the public. It will be considered at a future rulemaking. The second and third comments related to incorporated material already found in Agency rules under R12-1-323(C). For the portions already adopted, the Agency agreed to update the

incorporated material to meet the second comment and that portion of the third comment that Arizona has licenses for. The portion of the third comment related to plutonium and uranium enrichment facility licenses was not adopted at this time as Arizona does not have a licensed facility that would use the rules nor does it have other rules related to these types of licenses. If the state were to grant a license for this type of facility, it would adopt these portions at that time. Additionally, Arizona does not have any licenses of large industrial irradiators under its jurisdiction so comment number 4 was not adopted at this time until such time as the Agency receives a request for this type of license and would adopt this verbiage related to financial assurance. Comment number 5 would require revisions to Article 17 that were not covered in this rulemaking package so it will be addressed in a later rulemaking package. Comment number 6 relates to certificates issued to entities on the sealed source device registry and Arizona does not have multiple entities of this type licensed at this time. Upon application of this type of license the Agency would adopt this verbiage related to financial assurance. The seventh comment asked the Agency to define "carriers' as listed in 10 CFR 30.13. However, 10 CFR 30.13 does not define "carriers" and the Agency had already proposed that "carriers be defined in R12-1-1905. Because the term is also used in R12-1-103, the Radiation Regulatory Hearing Board requested that he term be defined under R12-1-012 as it applies to the Chapter rather than just one Article. This was done in this rulemaking package and should satisfy the intent of the seventh comment from the NRC. The eighth comment relates to notification of reactor fuel transport across the state of Arizona and would require the amendment of R12-1-1512. The Agency believes this will require notification of the change to this rules that was not done in this package so it will need to be addressed in a future rulemaking. The ninth comment related to the missing last portion of Appendix A in Article 19 that is missing the

explanation of six abbreviations and a formula. This was added as the intent of this Appendix is to match the code of federal regulations. The tenth comment was to update the federal mail stop address which does not appear to differ from what was noticed in the proposal so not action was needed.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The Agency believes that it is exempt from A.R.S. §§ 41-1037 due to paragraph (A)(2) as the issuance of an alternative type of permit is authorized under the statutory requirement of A.R.S. §§ 30-672 to protect the public health and safety.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The rule amendments are compatible with existing federal regulations and are not more stringent except for those types of radiation protection use whose regulation is authorized by Arizona statute that are not in the jurisdiction of an equivalent federal regulating body.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No analysis has been completed as the regulated community must be in compliance with either federal regulations (if not under a state jurisdiction) or agreement state rules.

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

Rule	Incorporated Material
R12-1-102	10 CFR 71, Appendix A, Table A-1,
R12-1-308(G)	10 CFR 32.210
R12-1-308(H)	10 CFR 32.211
R12-1-311(B)(2)	10 CFR 32.53 through 32.56
R12-1-311(C)(2)	10 CFR 32.57, 32.58, 32.59, and 70.39
R12-1-311(D)	10 CFR 32.57, 32.58, 32.59, and 70.39
R12-1-311(F)	10 CFR 32.61 and 32.62
R12-1-311(I)	10 CFR 32.74
R12-1-323(C)	10 CFR 30.35, 40.36, and 70.25
R12-1-323(E)(1)	10 CFR 30.36(g)(1),

	40.42(g)(1), and 70.38(g)(1)
R12-1-323(E)(5)	10 CFR 30.36(i), 40.42(i), and 70.38(i)
R12-1-323(E)(6)	10 CFR 30.36(j), 40.42(j), and 70.38(j)
R12-1-503(A)	"Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography", (published as NBS Handbook 136, and issued January 1981) by the American National Standards Institute,
R12-1-503(B)(2)	10 CFR 71
R12-1-1302(D)(11)	10 CFR 61
R12-1-1512	10 CFR 71.97
R12-1-1911(B)	10 CFR part 73
R12-1-1921(C)(4)	10 CFR part 73
R12-1-1925(B)(2)	10 CFR part 73
R12-1-1927(A)(4)	10 CFR part 73
R12-1-1927(C)	10 CFR 37.7

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the Register as specified in

R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rules follows:

TITLE 12. NATURAL RESOURCES

CHAPTER 1. RADIATION REGULATORY AGENCY

ARTICLE 1. GENERAL PROVISIONS

Section

R12-1-102. Definitions

ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

Section

R12-1-303. Radioactive Material Other Than Source Material; Exemptions

R12-1-306. General License – Radioactive Material Other Than Source Material

R12-1-311. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices that Contain Radioactive Material

R12-1-313. Specific Terms and Conditions

R12-1-320. Reciprocal Recognition of Licenses

R12-1-323. Financial Assurance and Recordkeeping for Decommissioning

ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

Section

R12-1-418. Surveys and Monitoring

R12-1-452. Radiological Criteria for License Termination

ARTICLE 5. SEALED SOURCE INDUSTRIAL RADIOGRAPHY

R12-1-503. Performance Requirements for Equipment

ARTICLE 7. MEDICAL USES OF RADIOACTIVE MATERIAL

R12-1-703. License for Medical Use of Radioactive Material

ARTICLE 13. LICENSE AND REGISTRATION FEES

R12-1-1302. License and Registration Categories

ARTICLE 15. TRANSPORTATION

R12-1-1512. Advance Notification of Shipment of Irradiated Reactor Fuel and Nuclear Waste

ARTICLE 18. RESERVED

ARTICLE 19. PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

Section

R12-1-1901. Purpose

R12-1-1903. Scope

R12-1-1905. Definitions

R12-1-1907. Communications

R12-1-1909. Interpretations

R12-1-1911. Specific Exemptions

R12-1-1913. Reserved

R12-1-1921. Personnel Access Authorization Requirements for Category 1 or Category 2 Quantities of Radioactive Material

R12-1-1923. Access Authorization Program Requirements

R12-1-1925. Background Investigations

R12-1-1927. **Requirements for Criminal History Records Checks of Individuals Granted Unescorted Access to Category 1 or Category 2 Quantities of Radioactive Material**

R12-1-1929. **Relief from Fingerprinting, Identification, and Criminal History Records Checks and Other Elements of Background Investigations for Designated Categories of Individuals Permitted Unescorted Access to Certain Radioactive Materials**

R12-1-1931. **Protection of Information**

R12-1-1933. **Access Authorization Program Review**

R12-1-1941. **Security Program**

R12-1-1943. **General Security Program Requirements**

R12-1-1945. **Local Law Enforcement Agency (LLEA) Coordination**

R12-1-1947. **Security Zones**

R12-1-1949. **Monitoring, Detection, and Assessment**

R12-1-1951. **Maintenance and Testing**

R12-1-1953. **Requirements for Mobile Devices**

R12-1-1955. **Security Program Review**

R12-1-1957. **Reporting of Events**

R12-1-1971. **Additional Requirements for Transfer of Category 1 and Category 2 Quantities of Radioactive Material**

R12-1-1973. **Applicability of Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Transit**

R12-1-1975. Preplanning and Coordination of Shipment of Category 1 or Category 2 Quantities of Radioactive Material

R12-1-1977. Advance Notification of Shipment of Category 1 Quantities of Radioactive Material

R12-1-1979. Requirements for Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Shipment

R12-1-1981. Reporting Of Events

R12-1-1982. Reserved

R12-1-1983. Reserved

R12-1-1984. Reserved

R12-1-1985. Reserved

R12-1-1986. Reserved

R12-1-1987. Reserved

R12-1-1988. Reserved

R12-1-1989. Reserved

R12-1-1990. Reserved

R12-1-1991. Reserved

R12-1-1992. Reserved

R12-1-1993. Reserved

R12-1-1994. Reserved

R12-1-1995. Reserved

R12-1-1996. Reserved

R12-1-1997. Reserved

R12-1-1998. Reserved

R12-1-1999. Reserved

R12-1-19100. Reserved

R12-1-19101. Form of Records

R12-1-19103. Record Retention

R12-1-19105. Inspections

R12-1-19107. Violations

R12-1-19109. Criminal Penalties

Appendix A Category 1 And Category 2 Radioactive Materials

TITLE 12. NATURAL RESOURCES

CHAPTER 1. RADIATION REGULATORY AGENCY

ARTICLE 1. GENERAL PROVISIONS

R12-1-102. Definitions

No change

"A1" means the maximum activity of special form radioactive material permitted in a type A package. These values are either listed in 10 CFR 71, Appendix A, Table A-1, or may be derived in accordance with the procedures prescribed in 10 CFR 71, Appendix A, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"A2" means the maximum activity of radioactive material, other than special form radioactive material, low specific activity (LSA) material, and surface contaminated object (SCO) material, permitted in a Type A package. These values are either listed in

10 CFR 71, Appendix A, Table A-1, or may be derived in accordance with the procedure prescribed in 10 CFR 71, Appendix A, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"Absorbed dose" No change

"Accelerator" No change

"Accelerator produced material" No change

"Act" No change

"Activity" No change

"Adult" No change

"Agency," or "ARRA" No change

"Agreement State" No change

"Airborne radioactive material" No change

"Airborne radioactivity area" No change

"ALARA" No change

"Analytical x-ray equipment" No change

"Analytical x-ray system" No change

"Annual" No change

"Authorized medical physicist" No change

"Authorized nuclear pharmacist" No change

"Authorized user" No change

"Background radiation" No change

"Becquerel" (Bq) No change

“Bioassay” No change

“Brachytherapy” No change

“Byproduct material” No change

“Calendar quarter” No change

“Calibration” No change

“Carrier” means a person engaged in the transportation of passengers or property by land or water as a common, contract, or private carrier, or by civil aircraft.

“Certifiable cabinet x-ray system” No change

“Certificate holder” No change

“Certificate of Compliance” No change

“CFR” No change

“Chelating agent” No change

“Civil penalty” No change

“Collective dose” No change

“Committed dose equivalent” No change

“Committed effective dose equivalent” No change

“Consortium” No change

“Curie” No change

“Current license or registration” No change

“Deep-dose equivalent” No change

“Depleted uranium” No change

“Discrete source” No change

“Dose” No change

“Dose equivalent” No change

“Dose limits” No change

“Dosimeter” No change

“Effective dose equivalent” No change

“Effluent release” No change

“Embryo/fetus” No change

“Enclosed beam x-ray system” No change

“Enclosed radiography” No change

“Cabinet radiography” No change

“Shielded room radiography” No change

“Entrance or access point” No change

“Exhibit” No change

“Explosive material” No change

“Exposure” No change

“Exposure rate” No change

“External dose” No change

“Extremity” means ~~hand, elbow, arm below the elbow, foot, knee, and leg below the knee.~~ the shoulder girdle to the phalanges and the lower two-thirds of the femur to the phalanges.

“Fail-safe characteristics” No change

“FDA” No change

“Field radiography” No change

“Field station” No change

“Former U.S. Atomic Energy Commission (AEC) or U.S.

Nuclear Regulatory Commission (NRC) licensed facilities” No change

“Generally applicable environmental radiation standards” No change

“Gray” No change

“Hazardous waste” No change

“Healing arts” No change

“Health care institution” No change

“High radiation area” No change

“Human use” No change

“Impound” No change

“Indian tribe” means an Indian or Alaska native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a.

“Individual” No change

“Individual monitoring” No change

“Individual monitoring device” No change

“Individual monitoring equipment” No change

“Industrial radiography” No change

“Injection tool” No change

“Inspection” No change

“Interlock” No change

“Internal dose” No change

“Irradiate” No change

“Laser” No change

“Lens dose equivalent” No change

“License” No change

“Licensed material” No change

“Licensed practitioner” No change

“Licensee” No change

“Licensing State” No change

“Limits” No change

“Local components” No change

“Logging supervisor” No change

“Logging tool” No change

“Lost or missing licensed or registered source of radiation” No change

“Low-level waste” No change

“Major processor” No change

“Medical dose” No change

“Member of the public” No change

“Mineral logging” No change

“Minor” No change

“Monitoring” No change

“Multiplier” No change

“NARM” No change

“Normal operating procedures” No change

“Natural radioactivity” No change

“NRC” No change

“Nuclear waste” No change

“Occupational dose” No change

“Open beam system” No change

“Package” No change

“Particle accelerator” No change

“Permanent radiographic installation” No change

“Personnel dosimeter” No change

“Personnel monitoring equipment” No change

“Personal supervision” No change

“PET” No change

“Pharmacist” No change

“Positron Emission Tomography (PET)” No change

“Positron Emission Tomography radionuclide production facility” No change

“Preceptor” No change

“Primary beam” No change

“Public dose” No change

“Pyrophoric liquid” No change

“Pyrophoric solid” No change

“Qualified expert” No change

“Quality Factor” No change

“Quarter” No change

“Rad” No change

“Radiation” No change

“Radiation area” No change

“Radiation dose” No change

“Radiation machine” No change

“Radiation Safety Officer” No change

“Radiation Safety Officer” No change

“Radioactive marker” No change

“Radioactive material” No change

“Radioactivity” No change

“Radiographer” No change

“Radiographer’s assistant” No change

“Registrant” No change

“Registration” is the process by which a person becomes a registrant pursuant to Article 2 or 14 of this Chapter. With the exception of registration of persons who install or service radiation machines, the types of registrations issued by the Agency are described in R12-1-1302.

“Regulations of the U.S. Department of Transportation” No change

“Rem” No change

“Research and Development” No change

“Restricted area” No change

“Roentgen” No change

“Safety system” No change

“Sealed source” No change

“Sealed Source and Device Registry” No change

“Shallow dose equivalent” No change

“Shielded position” No change

“Sievert” No change

“Site boundary” No change

“Source changer” No change

“Source holder” No change

“Source material” No change

“Source material milling” No change

“Source of radiation” or “source” No change

“Special form radioactive material” No change

“Special nuclear material in quantities not sufficient to form a critical mass” No change

“Storage area” No change

“Storage container” No change

“Subsurface tracer study” No change

“Survey” No change

“TEDE” No change

“Teletherapy” No change

“Temporary job site” No change

“Test” No change

“These rules” No change

“Total Effective Dose Equivalent” (TEDE) No change

“Total Organ Dose Equivalent” (TODE) No change

"Tribal official" means the highest ranking individual that represents Tribal leadership, such as the Chief, President, or Tribal Council leadership.

"Unrefined and unprocessed ore" No change

"Unrestricted area" No change

"U.S. Department of Energy" No change

"Very high radiation area" No change

"Waste" No change

"Waste handling licensees" No change

"Week" No change

"Well-bore" No change

"Well-logging" No change

"Whole body" No change

"Wireline" No change

"Wireline service operation" No change

"Worker" means any individual engaged in work under a license or registration issued by the Agency and controlled by employment or contract with a licensee or registrant.

"WL" No change

"WLM" No change

"Workload" No change

"Year" No change

ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

R12-1-303. Radioactive Material Other Than Source Material; Exemptions

A. No change

1. No change

2. No change

3. No change

4. No change

B. No change

1. No change

a. No change

i. No change

ii. No change

iii. No change

iv. No change

v. No change

vi. No change

vii. No change

(1) No change

(2) No change

(3) No change

viii. No change

b. No change

i. No change

ii. No change

c. No change

d. No change

e. No change

f. No change

i. No change

ii. No change

iii. No change

iv. No change

v. No change

vi. No change

vii. No change

g. No change

i. No change

ii. No change

iii. No change

h. No change

2. Self-luminous products containing tritium, krypton-85, or promethium-147:

a. Except for persons who manufacture, process, produce, initially transfer for sale or distribution ~~or produce~~ self-luminous products containing tritium, krypton-85, or promethium-147, and except as provided in paragraph (c) of this subsection, a person is exempt from this Chapter if the person receives, possesses, uses, owns, transfers or acquires tritium, krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced, imported, initially transferred for sale

or distribution, or transferred under a specific license issued by the U.S. Nuclear Regulatory Commission and described in 10 CFR 32.22, and the license authorizes the transfer of the products to persons who are exempt from regulatory requirements.

b. Any person who desires to manufacture, process, or produce, or initially transfer for sale or distribution self-luminous products containing tritium, krypton-85, or promethium-147 for use under paragraph (a) of this subsection, should apply for a license described in 12-1-311.

c. ~~This~~ The exemption in paragraph (a) of this subsection does not apply to tritium, krypton-85, or promethium-147 used in products for primarily frivolous purposes or in toys or adornments.

~~b.~~ d. A person is exempt from this Chapter if the person receives, possesses, uses, or transfers articles containing less than 3.7 kBq (100 nanocuries) of radium-226, manufactured prior to October 1, 1978.

3. Gas and aerosol detectors containing radioactive material

a. Except for persons who manufacture, process, produce, or initially transfer for sale or distribution~~, or produce~~ gas and aerosol detectors containing radioactive material, a person is exempt from this Chapter if the person receives, possesses, uses, transfers, owns, or acquires radioactive material in gas and aerosol detectors designed to protect life or property from fires and airborne hazards, provided that detectors containing radioactive material shall be manufactured, imported, or transferred according to a specific license issued by the U.S. Nuclear

Regulatory Commission and described in 10 CFR 32.26, or equivalent regulations of an Agreement or Licensing State, this exemption also covers gas and aerosol detectors manufactured or distributed before November 30, 2007 in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, or equivalent regulations of an Agreement or Licensing State and the license authorizes the transfer of the detectors to persons who are exempt from regulatory requirements.

b. Any person who desires to manufacture, process, or produce gas and aerosol detectors containing byproduct material, or to initially transfer such products for use under paragraph (a) of this subsection, should apply for a license described in R12-1-311.

~~b.~~ c. Gas and aerosol detectors previously manufactured and distributed to general licensees in accordance with a specific license issued by an Agreement State are exempt under subsection (B)(4)(a), provided that the device is labeled in accordance with the specific license authorizing distribution of the general licensed device, and that the detectors meet the requirements of the regulations of the U.S. Nuclear Regulatory Commission.

4. Certain industrial devices

a. Except for persons who manufacture, process, produce, or initially transfer for sale or distribution industrial devices containing byproduct material designed and manufactured for the purpose of detecting, measuring, gauging or controlling thickness, density, level, interface

location, radiation, leakage, or qualitative or quantitative chemical composition, or for producing an ionized atmosphere, any person is exempt from the requirements for a license set forth in this Chapter to the extent that such person receives, possesses, uses, transfers, owns, or acquires byproduct material, in these certain detecting, measuring, gauging, or controlling devices and certain devices for producing an ionized atmosphere, and manufactured, processed, produced, or initially transferred in accordance with a specific license issued under R12-1-311 of this Article, which license authorizes the initial transfer of the device for use under this section. This exemption does not cover sources not incorporated into a device, such as calibration and reference sources.

b. Any person who desires to manufacture, process, produce, or initially transfer, for sale or distribution, industrial devices containing byproduct material for use under paragraph (1) of this subsection, shall apply for a license described in R12-1-311.

C. No change

1. No change
2. No change
3. No change
4. No change
5. No change
6. No change
7. No change

R12-1-306. General License – Radioactive Material Other Than Source Material

~~**A.** This subsection grants a general license that authorizes a commercial or industrial firm, to transfer, receive, acquire, own, possess, and use radioactive material incorporated in the following devices or equipment manufactured, tested, and labeled by the manufacturer in accordance with a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission under 10 CFR 31.3. The devices regulated by this subsection include:~~

~~1. Devices designed for use as static eliminators that contain, as a sealed source or sources, radioactive material, consisting of a total of not more than 18.5 MBq (500 microcuries) of polonium-210 per device; or~~

~~2. Devices designed for ionization of air that contain, as a sealed source or sources, radioactive material, consisting of a total of not more than 18.5 MBq (500 microcuries) of polonium-210 per device or 1.85 GBq (50 millicuries) of hydrogen-3 (tritium) per device.~~

~~**B.**~~ **A.** Certain measuring, gauging or controlling devices and certain devices for producing light or an ionized atmosphere.

1. No change

2. A general licensee shall receive a device from one of the specific licensees described in this Section or through a transfer made under subsection ~~(B)(4)(k)~~ (A)(4)(k).

3. A general license in subsection ~~(B)(1)~~ (A)(1) applies only to radioactive material contained in devices that have been manufactured or initially transferred and labeled in accordance with the requirements contained in:

a. No change

b. No change

c. No change

4. A person who acquires, receives, possesses, uses, or transfers radioactive material in a device licensed under subsection ~~(B)(1)~~ (A)(1) or through a transfer made under subsection ~~(B)(4)(h)~~ (A)(4)(h), shall:

a. No change

b. No change

i. No change

ii. No change

c. Ensure that the tests required by subsection ~~(B)(4)(b)~~ (A)(4)(b) and other testing, installation, servicing, and removal from installation involving the radioactive material or its shielding or containment, are performed:

i. No change

ii. No change

d. Maintain records of compliance with the requirements in subsections ~~(B)(4)(b) and (c)~~ (A)(4)(b) and (c) that show the results of tests; the dates that required activities were performed, and the names of persons performing required activities involving radioactive material from the installation and its shielding or containment. The records shall be maintained for three years from the date of the recorded event or until transfer or disposal of the device.

e. No change

i. No change

ii. No change

iii. Within 30 days of an event governed by subsection ~~(B)(4)(e)~~ (A)(4)(e), the general licensee shall furnish a report that contains a brief description of the event and the remedial action taken and, in the case of detection of 185 Becquerel (0.005 microcurie) or more of removable radioactive material or failure of or damage to a source likely to result in contamination of the general licensee's facility or the surrounding area, if applicable, a plan for ensuring that the general licensee's facility and surrounding area, if applicable, are acceptable for unrestricted use. The radiological criteria for unrestricted use in R12-1-452 may be used to prepare the plan, as determined by the Agency, on a case-by-case basis.

f. No change

g. No change

h. Transfer or dispose of a device that contains radioactive material only by export as authorized in subsection ~~(B)(4)(g)~~ (A)(4)(g), transfer to another general licensee as authorized in subsection ~~(B)(4)(k)~~ (A)(4)(k) or a person who is authorized to receive the device by a specific license issued by the Agency, the NRC, or an Agreement State, or collection as

waste if authorized by equivalent regulations of an Agreement State, or the NRC, or as otherwise approved under subsection ~~(B)(4)(j)~~ (A)(4)(j).

i. No change

i. No change

ii. No change

iii. No change

j. Obtain written Agency approval before transferring a device to any other specific licensee that is not authorized in accordance with subsection ~~(B)(4)(h)~~ (A)(4)(h).

k. No change

i. If the device remains in use at a particular location. The transferor shall provide the transferee with a copy of this Section, a copy of R12-1- 443, R12-1-445, and R12-1-448 and any safety documents identified on the device label. Within 30 days of the transfer, the transferor shall report to the Agency the manufacturer's (or initial transferor's) name; the model number and the serial number of the device transferred; the transferee's name and mailing address for the location of use; and the name, title, and telephone number of the responsible individual appointed by the transferee in accordance with subsection ~~(B)(4)(n)~~ (A)(4)(n); or

ii. No change

l. No change

m. No change

n. No change

o. Register, in accordance with subsections ~~(B)(4)(p)~~ (A)(4)(p) and (q), any device that contains at least 370 megabecquerels (10 millicuries) of cesium-137, 3.7 megabecquerels (0.1 millicuries) of strontium-90, 37 megabecquerels (1 millicurie) of cobalt-60, or 37 megabecquerels (1 millicurie) of americium-241 or any other transuranic (i.e., element with atomic number greater than uranium (92)), based on the activity indicated on the label. Each address for a location of use, as described under subsection ~~(B)(4)(q)(iv)~~ (A)(4)(q)(iv), represents a separate general licensee and requires a separate registration and fee.

p. Register each device annually with the Agency and pay the fee required by R12-1-1306, Category D4, if in possession of a device that meets the criteria in subsection ~~(B)(4)(o)~~ (A)(4)(o). The general licensee shall register by verifying, correcting, and adding to the information provided in a request for registration received from the Agency. The registration information shall be submitted to the Agency within 30 days from the date on the request for registration. In addition, a general licensee holding devices meeting the criteria of subsection ~~(B)(4)(o)~~ (A)(4)(o) is subject to the bankruptcy notification requirements in R12-1-313(D).

q. No change

i. No change

ii. No change

iii. Name, title, and telephone number of the responsible individual appointed by the general licensee under subsection ~~(B)(4)(n)~~ (A)(4)(n);

iv. No change

v. No change

vi. No change

r. No change

s. Not use a device if the device has not been used for a period of two years. If a device with shutters is not being used, the general licensee shall ensure that the shutters are locked in the closed position. The testing required by subsection ~~(B)(4)(b)~~ (A)(4)(b) need not be performed during a period of storage. However, if a device is put back into service or transferred to another person, and has not been tested during the required test interval, the general licensee shall ensure that the device is tested for leakage before use or transfer and that the shutter is tested before use. A device kept in standby for future use is excluded from the two-year time limit in this subsection if the general licensee performs a quarterly physical inventory regarding the standby devices.

5. A person that is generally licensed by an Agreement State with respect to a device that meets the criteria in subsection ~~(B)(4)(o)~~ (A)(4)(o) is exempt from registration requirements if the device is used in an area subject to Agency jurisdiction for a period less than 180 days in any calendar year. The Agency does

not request registration information from a general licensee if the device is exempted from licensing requirements in subsection ~~(B)(4)(o)~~ (A)(4)(o).

6. The general license granted under subsection ~~(B)(1)~~ (A)(1) is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15, and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689.

7. The general license in subsection ~~(B)(1)~~ (A)(1) of this Section does not authorize the manufacture or import of devices containing byproduct material.

~~**C.**~~**B.** No change

1. No change

2. A person who owns, receives, acquires, possesses, or uses a luminous safety device according to the general license granted in subsection ~~(C)(1)~~ (B)(1) is:

a. No change

b. No change

c. No change

d. No change

e. No change

~~**D.**~~ **C.** This subsection grants a general license that authorizes a person who holds a specific license to own, receive, possess, use, and transfer radioactive material if the Agency issues the license; or special nuclear material if the NRC issues the license. For americium-241, radium-226, and plutonium contained in calibration or reference sources, this subsection grants a general license in accordance with the provisions of subsections

~~(D)(1), (2), and (3)~~ (C)(1), (2), and (3). For plutonium, ownership is included in the licensed activities.

1. No change

2. A general license granted under subsection ~~(D) or (D)(1)~~ (C) or (C)(1) is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 4, 10, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30- 657(A) and (B), 30-681, and 30-685 through 30-689. In addition, a person who owns, receives, acquires, possesses, uses, or transfers one or more calibration or reference sources under a general license granted under subsection ~~(D) or (D)(1)~~ (C) or (C)(1) shall:

a. No change

b. No change

c. No change

e. No change

3. The general license granted under subsection ~~(D) or (D)(1)~~ (C) or (C)(1) does not authorize the manufacture or import of calibration or reference sources that contain americium-241, plutonium, or radium-226.

4. The general license granted under subsections ~~(D) or (D)(1)~~ (C) or (C)(1) does not authorize the manufacture or export of calibration or reference sources that contain americium-241, plutonium, or radium-226.

~~**E.**~~ **D.** This subsection grants a general license that authorizes a person to receive, possess, use, transfer, own, or acquire carbon-14 urea capsules, which contain one microcurie of carbon-14 urea for “in vivo” human diagnostic use:

1. Except as provided in subsections ~~(E)(2) and (3)~~ (D)(2) and (3), a physician is exempt from the requirements for a specific license, provided that each carbon-14 urea capsule for "in vivo" diagnostic use contains no more than 1 microcurie.

2. No change

3. No change

4. No change

~~F.~~ E. No change

1. No change

a. No change

b. No change

c. No change

d. No change.

e. No change

g. No change

2. No change

a. No change

b. No change

3. No change

a. No change

b. Store the radioactive material, until used, in the original shipping container or in a container that provides equivalent radiation protection. c.

Use the radioactive material only for the uses authorized by subsection ~~(F)~~ (E).

d. No change

e. Not dispose of a mock iodine-125 reference or calibration source described subsection ~~(F)(1)~~ (E)(1) except as authorized by R12-1-434.

f. No change

g. No change

4. The general licensee shall not receive, acquire, possess, transfer, or use radioactive material according to subsection ~~(F)(1)~~ (E)(1):

a. Except as prepackaged units that are labeled according to the provisions of a specific license issued by the U.S. Nuclear Regulatory Commission, or any Agreement State that authorizes the manufacture and distribution of iodine-125, iodine-131, carbon-14, hydrogen-3 (tritium), iron-59, cobalt-57, selenium-75, or mock iodine-125 for distribution to persons generally licensed under subsection ~~(F)~~ (E) or its equivalent federal law; and

b. No change

i. No change

ii. No change

5. A physician, clinical laboratory or hospital that possesses or uses radioactive material under a general license granted by subsection ~~(F)~~ (E):

a. No change

b. Is exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10 with respect to radioactive material covered by the general license, except that a person using mock iodine-125 sources, described in subsection ~~(F)(1)(g)~~ (E)(1)(g), shall comply with the provisions of R12-1-434, R12-1-443, and R12-1-444 of this Chapter.

6. For the purposes of subsection ~~(F)~~ (E), a licensed veterinary care facility is considered a "clinical laboratory."

~~**G.**~~ **F.** This subsection grants a general license that authorizes a person to own, receive, acquire, possess, use, and transfer strontium-90, contained in ice detection devices, provided each device contains not more than 1.85 megabecquerels (50 microcuries) of strontium-90 and each device has been manufactured or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission or each device has been manufactured according to the specifications contained in a specific license issued by the Agency or any Agreement State to the manufacturer of the device under licensing requirements equivalent to those in 10 CFR 32.61. A person who receives, owns, acquires, possesses, uses, or transfers strontium-90 contained in ice detection devices under a general license in accordance with subsection ~~(G)~~ (F):

1. No change
2. No change
3. No change
4. No change
5. No change

~~H.~~ **G.** This subsection grants a general license that authorizes a person to acquire, receive, possess, use, or transfer, in accordance with the provisions of subsections ~~(I) and (J)~~ (H) and (I), radium-226 contained in the following products manufactured prior to November 30, 2007.

1. No change
2. No change
3. No change
4. No change
5. No change

~~I.~~ **H.** Persons who acquire, receive, possess, use, or transfer byproduct material under the general license issued in subsection ~~(H)~~ (G) are exempt from the provisions 12 A.A.C. 1, Articles 1, 3, 4, 7, 10, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689, to the extent that the receipt, possession, use, or transfer of byproduct material is within the terms of the general license; provided, however, that this exemption shall not be deemed to apply to any such person specifically licensed under this chapter. Any person who acquires, receives, possesses, uses, or transfers byproduct material in accordance with the general license in subsection ~~(H)~~ (G):

1. No change
2. No change
3. No change
4. No change
5. No change

~~**J.**~~ **I.** The general license in subsection ~~(H)~~ (G) does not authorize the manufacture, assembly, disassembly, repair, or import of products containing radium-226, except that timepieces may be disassembled and repaired.

R12-1-308. Filing Application for Specific Licenses

A. No change

B. No change

C. No change

D. No change

E. No change

F. No change

G. Except as provided in subsections (G)(1), (2), and (3), an application for a specific license to use byproduct material in the form of a sealed source or in a device that contains the sealed source must either identify the source or device by manufacturer and model number as registered with the Agency, NRC, or with an Agreement State, or, for a source or a device containing radium-226 or accelerator-produced radioactive material, with the Agency, NRC, or an Agreement State under ~~10 CFR 32.210(c) revised January 1, 2013~~ 10 CFR 32.210 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

1. No change

   a. No change

   b. No change

2. No change

3. No change

H. A certificate holder or licensee who no longer manufactures or initially transfers any of the sealed source(s) or device(s) covered by a particular certificate issued with the Agency, NRC, or with an Agreement State shall request inactivation of the registration or license with the Agency, NRC, or with an Agreement State program that the device is currently registered by in accordance with10 CFR 32.211 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

R12-1-311. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices that Contain Radioactive Material

A. Licensing the manufacture and distribution of devices to persons generally licensed under ~~R12-1-306(B)~~ R12-1-306(A).

1. The Agency shall grant a specific license to manufacture or distribute each device that contains radioactive material, excluding special nuclear material, to persons generally licensed under ~~R12-1-306(B)~~ R12-1-306(A) or equivalent regulations of the U.S. NRC, an Agreement State, or the Licensing State if:

a. No change

b. No change

i. No change

ii. No change

iii. No change

(1) No change

(2) No change

(3) No change

c. No change

i. No change

ii. No change

iii. No change

d. No change

e. No change

f. No change

g. The device has been registered in the Sealed Source and Device Registry.

2. No change

a. No change

b. No change

c. No change

d. No change

e. No change

f. No change

g. No change

h. No change

i. No change

j. No change

3. In the event the applicant desires that the general licensee under ~~R12-1-306(B)~~ R12-1-306(A), or under equivalent regulations of the NRC or an

Agreement State or Licensing State, be authorized to install the device, collect the sample to be analyzed by a specific licensee for leakage of radioactive material, service the device, test the on-off mechanism and indicator, or remove the device from installation, the application shall include written instructions to be followed by the general licensee, estimated calendar quarter doses associated with the activity or activities, and bases for the estimates. The submitted information shall demonstrate that performance of the activity or activities by an individual untrained in radiological protection, in addition to other handling, storage, and use of devices under the general license, is unlikely to cause that individual to receive a dose in excess of 10 percent of the limits specified in R12-1-408.

4. A licensee authorized under subsection (A) to distribute a device to a generally licensed person shall provide, if a device that contains radioactive material is to be transferred for use under the general license granted in ~~R12-1-306(B)~~ R12-1-306(A), the name of each person that is licensed under R12-1-311(A) and the information specified in this subsection for each person to whom a device will be transferred. The licensee shall provide this information before the device may be transferred. In the case of transfer through another person, the licensee shall provide the listed information to the intended user before initial transfer to the other person.

a. No change

i. A copy of the general license, issued under ~~R12-1-306(B)~~ R12-1-306(A),

ii. No change

iii. No change

iv. No change

v. No change

b. No change

i. No change

ii. No change

iii. No change

5. No change

a. A copy of the Agreement State's requirements that are equivalent to R12-1-306(A)~~ and (B)~~, and A.R.S. §§ 30-657, R12-1-443, and R12-1-445. If a copy of NRC regulations is provided to a prospective general licensee in lieu of the Agreement State's requirements, the licensee shall explain in writing that use of the device is regulated by the Agreement State. If certain requirements do not apply to a particular device, the licensee may omit the requirement from the material provided;

b. No change

c. No change

d. No change

6. No change

7. No change

8. No change

a. The person licensed under subsection (A) shall report all transfers of devices to persons for use under a general license obtained under ~~R12-~~

~~1-306(B)~~ R12-1-306(A), and all receipts of devices from persons licensed under ~~R12-1-306(B)~~ R12-1-306(A) to the Agency, NRC, or other affected Agreement State. The report shall be submitted on a quarterly basis, in a clear and legible form, and contain the following information:

i. No change

ii. No change

iii. No change

iv. No change

v. No change

b. No change

c. For devices received from a general licensee, licensed under ~~R12-1-306(B)~~ R12-1-306(A), the report shall include:

i. No change

ii. No change

iii. No change

iv. No change

d. No change

e. No change

g. If no transfers are made to or from persons generally licensed under ~~R12-1-306(B)~~ R12-1-306(A) during a reporting period, the person licensed under subsection (A) shall submit a report indicating the lack of activity.

9. The licensee shall maintain records of all transfers for Agency inspection. Records shall be maintained for three years after termination of the license to manufacture the generally licensed devices regulated under ~~R12-1-306(B)~~ R12-1-306(A).

B. The Agency shall grant a specific license to manufacture, assemble, repair, or initially transfer luminous safety devices that contain tritium or promethium-147 for use in aircraft, for distribution to persons generally licensed under ~~R12-1-306(C)~~ R12-1-306(B), if the applicant satisfies:

1. No change

2. The requirements of 10 CFR 32.53 through 32.56 revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. The Agency shall grant a specific license to manufacture or initially transfer calibration or reference sources that contain americium-241, radium-226, or plutonium for distribution to persons generally licensed under ~~R12-1-306(D)~~ R12-1-306(C) if the applicant satisfies:

1. No change

2. The requirements of 10 CFR 32.57, 32.58, 32.59, and 70.39, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

D. The Agency shall grant a specific license to distribute radioactive material for use by a physician under the general license in ~~R12-1-306(E)~~ R12-1-306(D) if:

1. The general requirements of R12-1-309; and

2. The requirements of 10 CFR 32.57, 32.58, 32.59, and 70.39, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

a. No change

b. No change

E. The Agency shall grant for a specific license to manufacture or distribute radioactive material for use under the general license of ~~R12-1-306(F)~~ R12-1-306(E) if:

1. No change

2. No change

a. No change

b. No change

c. No change

d. No change

e. No change

f. No change

g. No change

3. No change

a. No change

b. No change

4. No change

a. No change

b. No change

5. No change

F. The Agency shall grant for a specific license to manufacture and distribute ice detection devices to persons generally licensed under ~~R12-1-306(G)~~ R12-1-306(F) if the applicant satisfies:

1. No change

2. The criteria of 10 CFR 32.61 and 32.62, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

G. No change

1. No change

2. No change

a. No change

b. No change

3. No change

a. No change

b. No change

4. No change

H. No change

1. No change

2. No change

a. No change

b. No change

3. No change

4. No change

5. No change

a. No change

b. No change

I. The Agency shall grant a specific license to manufacture and distribute sources and devices that contain radioactive material to a person licensed in accordance with Article 7 of this Chapter for use as a calibration, transmission, or reference source or for medical purposes, if the applicant meets all of the requirements in 10 CFR 32.74, revised January 1, ~~2013~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

J. No change

1. No change

a. No change

b. No change

c. No change

2. No change

3. No change

4. No change

a. No change

b. No change

i. No change

ii. No change

c. No change

d. No change

e. No change

f. No change

i. No change

ii. No change

iii. No change

iv. No change

v. No change

vi. No change

K. No change

1. No change

2. No change

R12-1-313. Specific Terms and Conditions

A. No change

B. No change

1. An application for transfer of license must include:

a. The identity, technical and financial qualifications of the proposed transferee; and

b. Financial assurance for decommissioning information required by R12-1-323.

C. No change

D. Each license issued pursuant to the rules in Articles 3, 5, 7, and 15 of this Chapter shall be deemed to contain the provisions set forth in the Act, whether or not these provisions are expressly set forth in the license.

E. The Agency may incorporate, in any license issued pursuant to the rules in this Chapter, at the time of issuance, or thereafter by appropriate rule, regulation or order, such additional requirements and conditions with respect to the licensee's receipt, possession, use and transfer of byproduct material as it deems appropriate or necessary in order to:

1. Promote the common defense and security;
2. Protect health or to minimize danger to life or property;
3. Protect restricted data; or
4. Require such reports and the keeping of such records, and to provide for such inspections of activities under the license as may be necessary or appropriate to effectuate the purposes of the Act and rules thereunder.

F. Licensees required to submit emergency plans in accordance with R12-1-322 shall follow the emergency plan approved by the Agency. The licensee may change the approved plan without Agency approval only if the changes do not reduce the commitment of the plan. The licensee shall furnish the change to the Agency and to affected offsite response organizations within six months after the change is made. Proposed changes that reduce, or potentially reduce, the commitment of the approved emergency plan may not be implemented without prior application to and prior approval by the Agency.

~~D.~~ **G.** Each person licensed under this Section and each general licensee that is required to register under ~~R12-1-306(B)(4)(o)~~ R12-1-306(A)(4)(o) shall notify the Agency in writing if the licensee decides to permanently discontinue any or all activities involving materials authorized under the license. A specific licensee or general licensee shall notify the Agency, in writing:

1. Immediately following the filing of a petition for bankruptcy under any Chapter of Title 11 of the United States Code if the petition for bankruptcy is by or against:

    a. The licensee;

    b. An entity (as defined in the bankruptcy code) controlling the licensee or listing the license or licensee as property of the estate; or

    c. An affiliate (as defined in the bankruptcy code) of the licensee.

2. Providing the following information:

    a. The bankruptcy court in which the petition for bankruptcy was filed, and

    b. The bankruptcy case title and number, and

    c. The date the petition was filed.

~~E.~~ **H.** Each licensee preparing technetium-99m radiopharmaceuticals from molybdenum-99/technetium-99m generators or rubidium-82 from strontium-82/rubidium-82 generators shall test the generator eluates for molybdenum-99 breakthrough or strontium-82 and strontium-85 contamination, respectively, in accordance with R12-1-720. The licensee shall record the results of each test and retain each record for three years after the record is made.

R12-1-320. Reciprocal Recognition of Licenses

A. No change

1. No change

2. No change

3. No change

4. No change

5. No change

a. No change

b. No change

B. Notwithstanding the provisions of subsection (A)(1), this subsection grants a general license to manufacture, install, transfer, demonstrate, or service a device described in ~~R12-1-306(B)(1)~~ R12-1-306(A)(1) to any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission, Licensing State, or an Agreement State authorizing the same activities within areas subject to the jurisdiction of the licensing body, provided that:

1. No change

2. No change

3. No change

4. The holder of the specific license furnishes a copy of the general license contained in ~~R12-1-306(B)(1)~~ R12-1-306(A)(1), or equivalent rules of the agency having jurisdiction over the manufacture or distribution of the device, to each general licensee to whom the licensee transfers the device or on whose premises the device is installed.

C. No change

D. No change

E. No change

1. No change

2. No change

F. No change

R12-1-323. Financial Assurance and Recordkeeping for Decommissioning

A. No Change

1. No Change

2. No Change

3. No Change

4. No Change

5. No Change

B. No Change

C. When applying, each applicant for a specific license that authorizes the possession and use of radioactive material, and each holder of a license to possess and use radioactive material issued before the effective date of this Section, shall submit to the Agency a decommissioning funding plan or certification of financial assurance that meets the requirements in 10 CFR 30.35, 40.36, and 70.25, revised January1, ~~2008~~, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

1. Each decommissioning funding plan shall be submitted to the Agency for review and approval and shall contain:

a. A detailed cost estimate for decommissioning, in an amount reflecting:

i. The cost of an independent contractor to perform all decommissioning activities;

ii. The cost of meeting the R12-1-452(B) criteria for unrestricted use, provided that, if the applicant or licensee can demonstrate its ability to meet the provisions of R12-1-453(C), the cost estimate may be based on meeting the R12-1-453(C) criteria;

iii. The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination; and

iv. An adequate contingency factor.

b. Identification of and justification for using the key assumptions contained in the DCE;

c. A description of the method of assuring funds for decommissioning from paragraph (F) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility;

d. A certification by the licensee that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning; and

e. An original signed copy of the financial instrument obtained to satisfy the requirements of paragraph (F) of this section (unless a

previously submitted and accepted financial instrument continues to cover the cost estimate for decommissioning).

D. No Change

1. No Change

2. No Change.

3. No Change

E. Decommissioning procedures:

1. Upon expiration or termination of principal activities a licensee shall notify the Agency in writing whether the licensee is discontinuing licensed activities. The licensee shall begin decommissioning its facility within 60 days after the Agency receives notice of the decision to permanently terminate principal activities, or within 12 months after receipt of notice, submit to the Agency a decommissioning plan, as prescribed in 10 CFR 30.36(g)(1), 40.42(g)(1), and 70.38(g)(1), revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. The licensee shall begin decommissioning upon approval of the plan if the license has expired or no licensed activities have been conducted at the licensee's facility for a period of 24 months.

2. In addition to the notification requirements in subsection (E)(1), the licensee shall maintain in effect all decommissioning financial assurances required by this Section. The financial assurances shall be increased or may be decreased as appropriate to cover the cost estimate established for decommissioning in subsection (E)(1). The licensee may reduce the amount of the

financial assurance following approval of the decommissioning plan, provided the radiological hazard is decreasing and the licensee has the approval of the Agency.

3. The Agency shall extend the time periods established in subsection (E)(1) if a new time period is in the best interest of public health and safety.

a. The licensee shall submit a request for an extension no later than 30 days after the Agency receives the notice required in subsection (E)(1).

b. If a licensee has requested an extension, the licensee is not required to commence decommissioning activities required in subsection (E)(1), until the Agency has made a determination on the request submitted to the Agency under subsection (E)(3)(a).

4. Except as provided in subsection (E)(5), the licensee shall complete decommissioning of a facility as soon as practicable but no later than 24 months following the initiation of decommissioning; and except as provided in subsection (E)(5), when decommissioning involves the entire facility, the licensee shall request license termination as soon as practicable but no later than 24 months following initiation of decommissioning.

5. The Agency shall approve a request for an alternate schedule for completion of decommissioning and license termination if the Agency determines that the alternative is warranted by consideration of the conditions specified in 10 CFR 30.36(i), 40.42(i), and 70.38(i), revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

6. As a final step in decommissioning, the licensee shall meet the requirements specified in 10 CFR 30.36(j), 40.42(j), and 70.38(j), revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

F. Each person licensed under this Article shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with R12-1-318, licensees shall transfer all records described in this paragraph to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Agency considers important to decommissioning consists of:

1. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations.

2. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes which may

be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.

3. Except for areas containing depleted uranium used only for shielding or as penetrators in unused munitions, a list contained in a single document and updated every 2 years, of the following:

a. All areas designated and formerly designated as restricted areas as defined under R12-1-102;

b. All areas outside of restricted areas that require documentation under R12-1-323(F)(1);

c. All areas outside of restricted areas where current and previous wastes have been buried as documented under R12-1-441; and

d. All areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in R12-1-451, or R12-1-452; or apply for approval for disposal under R12-1-435.

4. Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

G. In providing financial assurance under this section, each licensee shall use the financial assurance funds only for decommissioning activities and each licensee shall

monitor the balance of funds held to account for market variations. The licensee shall replenish the funds, and report such actions to the Agency, as follows:

1. If, at the end of a calendar quarter, the fund balance is below the amount necessary to cover the cost of decommissioning, but is not below 75 percent of the cost, the licensee shall increase the balance to cover the cost, and shall do so within 30 days after the end of the calendar quarter.

2. If, at any time, the fund balance falls below 75 percent of the amount necessary to cover the cost of decommissioning, the licensee shall increase the balance to cover the cost, and shall do so within 30 days of the occurrence.

3. Within 30 days of taking the actions required by paragraph (G)(1) or (G)(2) of this section, the licensee shall provide a written report of such actions to the Director of the Agency, and state the new balance of the fund.

H. The financial instrument must include the licensee's name, license number, and docket number, and the name, address, and other contact information of the issuer, and, if a trust is used, the trustee. When any of the foregoing information changes, the licensee must, within 30 days, submit financial instruments to the Agency reflecting such changes. The financial instrument submitted must be a signed original or signed original duplicate, except where a copy of the signed original is specifically permitted. Financial assurance for decommissioning must be provided by one or more of the following methods:

1. Prepayment. Prepayment is the deposit before the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets such that the amount of funds would be sufficient

to pay decommissioning costs. Prepayment must be made into a trust account, and the trustee and the trust must be acceptable to the Agency.

2. A surety method, insurance, or other guarantee method. These methods guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, or letter of credit. A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are approved by the Agency. For commercial corporations that issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are approved by the Agency. For commercial companies that do not issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs may be used if the guarantee and test are approved by the Agency. For nonprofit entities, such as colleges, universities, and nonprofit hospitals, a guarantee of funds by the applicant or licensee may be used if the guarantee and test are approved by the Agency. Except for an external sinking fund, a parent company guarantee or a guarantee by the applicant or licensee may not be used in combination with any other financial methods used to satisfy the requirements of this section. A guarantee by the applicant or licensee may not be used in any situation where the applicant or licensee has a parent company holding majority control of the voting stock of the company. Any surety method or insurance used to provide financial assurance for decommissioning must contain the following conditions:

a. The surety method or insurance must be open-ended or, if written for a specified term, such as five years, must be renewed automatically

unless 90 days or more prior to the renewal date, the issuer notifies the Agency, the beneficiary, and the licensee of its intention not to renew. The surety method or insurance must also provide that the full face-value amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the Agency within 30 days after receipt of notification of cancellation.

b. The surety method or insurance must be payable to a trust established for decommissioning costs. The trustee and trust must be acceptable to the Agency. An acceptable trustee includes an appropriate State or Federal government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

c. The surety method or insurance must remain in effect until the Agency has terminated the license.

3. An external sinking fund in which deposits are made at least annually, coupled with a surety method, insurance, or other guarantee method, the value of which may decrease by the amount being accumulated in the sinking fund. An external sinking fund is a fund established and maintained by setting aside funds periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund must be in the form of a trust. If the other

guarantee method is used, no surety or insurance may be combined with the external sinking fund. The surety, insurance, or other guarantee provisions must be as stated in paragraph (H)(2) of this section.

4. In the case of Federal, State, or local government licensees, a statement of intent containing a cost estimate for decommissioning, and indicating that funds for decommissioning will be obtained when necessary.

5. When a governmental entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity.

ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

R12-1-418. Surveys and Monitoring

A. No change

1. No change

2. No change

a. The magnitude and extent of radiation levels, and

b. Concentrations or quantities of residual radioactivity ~~radioactive material~~, and

c. The potential radiological hazards of the radiation levels and residual radioactivity detected.

B. No change

1. No change

C. No change

D. No change

E. No change

1. No change

a. No change

b. No change

c. No change

d. No change

R12-1-452. Radiological Criteria for License Termination

A. No change

1. No change

2. No change

a. No change

b. No change

3. No change

4. No change

B. No change

C. No change

1. No change

2. No change

3. The licensee demonstrates financial assurance that complies with R12-1-323(C), which enables an independent third party, including a governmental custodian of the site, to assume and carry out responsibilities for control and maintenance of the site <u>and funds placed into a trust segregated from the licensee's assets and outside the licensee's administrative control, and in which the</u>

adequacy of the trust funds is to be assessed based on an assumed annual 1 percent real rate of return on investment;

4. No change

a. No change

i. No change

ii. No change

b. No change

i. No change

ii. No change

iii. No change

5. No change

a. No change

b. No change

c. No change

D. No change

1. No change

a. No change

b. No change

c. Reduces doses to ALARA levels, taking into consideration any ~~detriment, such as deaths from transportation accidents~~ detriments such as traffic accidents expected to potentially result~~, that is likely to result~~ from decontamination and waste disposal; and

d. No change

i. No change

ii. No change

iii. No change

e. Has provided sufficient financial assurance in the form of a trust fund to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site.

2. No change

E. No change

1. No change

a. No change

b. No change

2. No change

F. No change

1. Applicants for standard design certifications, standard design approvals, and manufacturing licenses shall describe in the application how facility design will minimize, to the extent practicable, contamination of the facility and the environment, facilitate eventual decommissioning, and minimize, to the extent practicable, the generation of radioactive waste.

2. Licensees shall, to the extent practicable, conduct operations to minimize the introduction of residual radioactivity into the site, including the subsurface, in accordance with the existing radiation protection requirements in this Article and radiological criteria for license termination in this Article.

G. No change

Table 1. No change.

ARTICLE 5. SEALED SOURCE INDUSTRIAL RADIOGRAPHY

R12-1-503. Performance Requirements for Equipment

A. No change.

1. Each radiographic exposure device, source assembly or sealed source, and all associated equipment meet the requirements in American National Standards Institute, N432-1980 "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography", ~~1980 edition,~~(published as NBS Handbook 136, ~~and~~ issued January 1981) by the American National Standards Institute, which is incorporated by reference and on file with the Agency. This incorporation by reference contains no future editions or amendments. This publication may be purchased from the American National Standards Institute, Inc., ~~1430 Broadway, New York, New York 10018~~ 25 West 43rd Street, New York, New York 10036 Telephone (212) 642-4900. A copy of the document is also on file at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*; or

2. No change.

B. No change.

1. No change.

a. No change.

b. No change.

c. No change.

d. No change.

e. No change.

2. A licensee shall ensure that each radiographic exposure device intended for use as a Type B transport container meets the applicable requirements of 10 CFR 71~~, 2003 edition~~, ~~published~~ revised January 1, ~~2003~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.~~ by the Office of the Federal Register National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency~~. ~~This incorporation by reference contains no future editions or amendments.~~

3. No change.

C. No change.

1. No change.

2. No change.

3. No change.

4. No change.

5. No change.

6. No change.

7. No change.

8. No change.

9. No change.

D. No change.

E. No change.

ARTICLE 7. MEDICAL USES OF RADIOACTIVE MATERIAL

R12-1-703. License for Medical Use of Radioactive Material

A. No change

1. No change

2. No change

3. No change

B. No change

1. No change

a. No change

b. No change

c. No change

d. No change

2. No change

a. No change

i. No change

ii. No change

iii. No change

iv. No change

b. No change

c. No change

C. No change

1. No change

a. No change

b. No change

c. No change

d. No change

2. No change

a. No change

b. No change

c. No change

3. Any licensee who is licensed according to subsection (C)(1), for one or more of the medical use groups in Exhibit A also is authorized to use radioactive material under the general license in ~~R12-1-306(F)~~ R12-1-306(E) for the specified in vitro uses without filing Form ARRA-9 as required by ~~R12-1-306(F)(2)~~ R12-1-306(E)(2); provided, that the licensee is subject to the other provisions of ~~R12-1-306(F)~~ R12-1-306(E).

D. No change

ARTICLE 13. LICENSE AND REGISTRATION FEES

R12-1-1302. License and Registration Categories

A. No change

1. No change

2. No change

3. No change

4. No change

B. No change

1. No change

2. No change

3. No change

4. No change

5. No change

6. A general medical license is a registration of the use of radioactive material pursuant to ~~R12-1-306(E) or R12-1-306(F)~~ R12-1-306(D) or R12-1-306(E). A general medical license may be combined into a broad medical, medical materials class A, or medical materials class B license.

C. No change

1. No change

2. No change

3. No change

4. A limited industrial license is a specific category C license authorizing the possession of the radioactive materials authorized in R12-1-305(A), or ~~R12-1-306(A), (B), (D) or (G)~~ R12-1-306(A), (C) or (F) for uses authorized in those subsections, but in quantities greater than authorized by those subsections.

5. No change

6. No change

7. No change

8. No change

9. No change

10. A general industrial license means a registration of the use of a material, source, or device generally licensed pursuant to R12-1-305 or R12-1-306, except ~~R12-1-305(C), R12-1-306(E), or R12-1-306(F)~~ R12-1-305(B), R12-1-306(D), or R12-1-306(E).

11. No change

12. No change

13. No change

14. No change

15. No change

16. No change

17. No change

D. No change

1. No change

   a. No change

   b. No change

2. No change

3. No change

4. A general industrial license is a registration of a gauging device in accordance with ~~R12-1-306(B)~~ R12-1-306(A). The Agency may combine a general industrial license with a Class A, B, or C broad industrial, limited industrial, portable gauge, or Class A or B fixed gauge license.

5. No change

6. No change

7. A general veterinary medicine license is a registration of the use of the general license authorized in ~~R12-1-306(F)~~ R12-1-306(E) in veterinary medicine.

8. No change

9. No change

10. No change

11. A low-level, radioactive waste disposal facility license is a license that is issued for a "disposal facility," as that term is used in R12-1-439 and R12-1-442, which has a closure or long-term care plan and is constructed and operated according to the requirements in 10 CFR 61, ~~2003 edition, published January 1, 2003, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency, and contains no future editions or amendments.~~ revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

12. No change

13. No change

14. No change

15. No change

16. No change

17. No change

18. No change

19. No change

E. No change

1. No change

2. No change

3. No change

4. No change

5. No change

6. No change

F. No change

1. No change

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12. No change

13. No change

14. No change

15. No change

16. No change

ARTICLE 15. TRANSPORTATION

R12-1-1512. Advance Notification of Shipment of Irradiated Reactor Fuel and Nuclear Waste

A licensee shall provide advance notification to the Governor, or the Director of the Agency, of the shipment of licensed material as specified in 10 CFR 71.97, revised January 1, ~~2008~~ 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

ARTICLE 18. RESERVED

ARTICLE 19. PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

R12-1-1901. Purpose

This Article has been established to provide requirements for the physical protection program for any licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material listed in Appendix A to this Article. These requirements provide reasonable assurance of the security of category 1 or category 2 quantities of radioactive material by protecting these materials from theft or diversion. Specific requirements for access to material, use of material, transfer of material, and transport of material are included. No provision of this Article authorizes possession of licensed material.

R12-1-1902. Reserved

R12-1-1903. Scope

A. R12-1-1921 through R12-1-1957 of this Article apply to any person who, under the rules in this chapter, possesses or uses at any site, an aggregated category 1 or category 2 quantity of radioactive material.

B. R12-1-1971 through R12-1-1981 of this Article apply to any person who, under the rules of this chapter:

1. Transports or delivers to a carrier for transport in a single shipment, a category 1 or category 2 quantity of radioactive material; or

2. Imports or exports a category 1 or category 2 quantity of radioactive material; the provisions only apply to the domestic portion of the transport.

R12-1-1904. Reserved

R12-1-1905. Definitions

The following definitions apply to this Article, unless the context otherwise requires:

"Access control" means a system for allowing only approved individuals to have unescorted access to the security zone and for ensuring that all other individuals are subject to escorted access.

"Act" means the Atomic Energy Act of 1954 (68 Stat. 919), including any amendments thereto.

"Aggregated" means accessible by the breach of a single physical barrier that would allow access to radioactive material in any form, including any devices that contain the radioactive material, when the total activity equals or exceeds a category 2 quantity of radioactive material.

"Agreement State" means any state with which the Atomic Energy Commission or the U.S. Nuclear Regulatory Commission has entered into an effective agreement under subsection 274b of the Act. Non-agreement State means any other State.

"Approved individual" means an individual whom the licensee has determined to be trustworthy and reliable for unescorted access in accordance with R12-1-1921 through

R12-1-1933 of this Article and who has completed the training required by R12-1-1943(C).

"Background investigation" means the investigation conducted by a licensee or applicant to support the determination of trustworthiness and reliability.

"Becquerel (Bq)" means one disintegration per second.

"Byproduct material" means the same as in R12-1-102.

"Category 1 quantity of radioactive material" means a quantity of radioactive material meeting or exceeding the category 1 threshold in Table 1 of Appendix A to this Article. This quantity is determined by calculating the ratio of the total activity of each radionuclide to the category 1 threshold for that radionuclide and adding the ratios together. If the sum is equal to or exceeds 1, the quantity would be considered a category 1 quantity. Category 1 quantities of radioactive material do not include the radioactive material contained in any fuel assembly, subassembly, fuel rod, or fuel pellet.

"Category 2 quantity of radioactive material" means a quantity of radioactive material meeting or exceeding the category 2 threshold but less than the category 1 threshold in Table 1 of Appendix A to this Article. This quantity is determined by calculating the ratio of the total activity of each radionuclide to the category 2 threshold for that radionuclide and adding the ratios together. If the sum is equal to or exceeds 1, the quantity would be considered a category 2 quantity. Category 2 quantities of radioactive material do not include the radioactive material contained in any fuel assembly, subassembly, fuel rod, or fuel pellet.

"Commission" means the U.S. Nuclear Regulatory Commission or its duly authorized representatives.

“Curie” means the same as in R12-1-102.

“Diversion” means the unauthorized movement of radioactive material subject to this Article to a location different from the material's authorized destination inside or outside of the site at which the material is used or stored.

“Escorted access” means accompaniment while in a security zone by an approved individual who maintains continuous direct visual surveillance at all times over an individual who is not approved for unescorted access.

“Fingerprint orders” means the orders issued by the U.S. Nuclear Regulatory Commission or the legally binding requirements issued by Agreement States that require fingerprints and criminal history records checks for individuals with unescorted access to category 1 and category 2 quantities of radioactive material or safeguards information-modified handling.

“Government agency” means any executive department, commission, independent establishment, corporation, wholly or partly owned by the United States of America which is an instrumentality of the United States, or any board, bureau, division, service, office, officer, authority, administration, or other establishment in the executive branch of the Government.

“License”, except where otherwise specified, means a license for byproduct material issued pursuant to the rules in Articles 3, 5, 7, and 15 of this chapter;

“License issuing authority” means the licensing agency that issued the license, i.e. the Agency, U.S. Nuclear Regulatory Commission, or the appropriate agency of an Agreement State;

“Local law enforcement agency (LLEA)” means a public or private organization that has been approved by a federal, state, or local government to carry firearms and make arrests, and is authorized and has the capability to provide an armed response in the jurisdiction where the licensed category 1 or category 2 quantity of radioactive material is used, stored, or transported.

“Lost or missing licensed material” means licensed material whose location is unknown. It includes material that has been shipped but has not reached its destination and whose location cannot be readily traced in the transportation system.

“Mobile device” means a piece of equipment containing licensed radioactive material that is either mounted on wheels or casters, or is otherwise equipped for moving without a need for disassembly or dismounting; or is designed to be hand carried. Mobile devices do not include stationary equipment installed in a fixed location.

“Movement control center” means an operations center that is remote from transport activity and that maintains position information on the movement of radioactive material, receives reports of attempted attacks or thefts, provides a means for reporting these and other problems to appropriate agencies and can request and coordinate appropriate aid.

“No-later-than arrival time” means the date and time that the shipping licensee and receiving licensee have established as the time at which an investigation will be initiated if the shipment has not arrived at the receiving facility. The no-later-than arrival time may not be more than 6 hours after the estimated arrival time for shipments of category 2 quantities of radioactive material.

“Person” means:

Any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, Government agency other than the Commission or the DOE (except that the Department shall be considered a person within the meaning of the rules in 10 CFR chapter I to the extent that its facilities and activities are subject to the licensing and related regulatory authority of the Commission under section 202 of the Energy Reorganization Act of 1974 (88 Stat. 1244), the Uranium Mill Tailings Radiation Control Act of 1978 (92 Stat. 3021), the Nuclear Waste Policy Act of 1982 (96 Stat. 2201), and section 3(b)(2) of the Low-Level Radioactive Waste Policy Amendments Act of 1985 (99 Stat. 1842), any State or any political subdivision of or any political entity within a State, any foreign government or nation or any political subdivision of any such government or nation, or other entity; and

Any legal successor, representative, agent, or agency of the foregoing.

"Reviewing official" means the individual who shall make the trustworthiness and reliability determination of an individual to determine whether the individual may have, or continue to have, unescorted access to the category 1 or category 2 quantities of radioactive materials that are possessed by the licensee.

"Sabotage" means deliberate damage, with malevolent intent, to a category 1 or category 2 quantity of radioactive material, a device that contains a category 1 or category 2 quantity of radioactive material, or the components of the security system.

"Safe haven" means a readily recognizable and readily accessible site at which security is present or from which, in the event of an emergency, the transport crew can notify and wait for the local law enforcement authorities.

“Security zone” means any temporary or permanent area determined and established by the licensee for the physical protection of category 1 or category 2 quantities of radioactive material.

“State” means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

“Telemetric position monitoring system” means a data transfer system that captures information by instrumentation and/or measuring devices about the location and status of a transport vehicle or package between the departure and destination locations.

“Trustworthiness and reliability’ means characteristics of an individual considered dependable in judgment, character, and performance, such that unescorted access to category 1 or category 2 quantities of radioactive material by that individual does not constitute an unreasonable risk to the public health and safety or security. A determination of trustworthiness and reliability for this purpose is based upon the results from a background investigation.

“Unescorted access” means solitary access to an aggregated category 1 or category 2 quantity of radioactive material or the devices that contain the material.

“United States” when used in a geographical sense, includes Puerto Rico and all territories and possessions of the United States.

R12-1-1906. Reserved

R12-1-1907. Communications

Except where otherwise specified or covered under licensing program as provided in this chapter, all communications and reports concerning the rules in this Article may be sent as follows:

A. By mail addressed to: ATTN: Arizona Radiation Regulatory Agency; Radioactive Materials Program; 4814 South 40th Street, Phoenix, Arizona 85040;

B. By hand delivery to the Agency's offices at 4814 South 40th Street, Phoenix, Arizona 85040;

C. Where practicable, by electronic submission, for example, Electronic Information Exchange, or CD–ROM. Electronic submissions shall be made in a manner that enables the Agency to receive, read, authenticate, distribute, and archive the submission, and process and retrieve it a single page at a time. Electronic submissions can be by visiting the Agency's Web site at *http://www.azrra.gov* and selecting specific RAM (Radioactive Material) Staff contact information or by email to ram@azrra.gov.

R12-1-1908. Reserved

R12-1-1909. Interpretations

Except as specifically authorized by the Agency in writing, no interpretations of the meaning of the rules in this Article by any officer or employee of the Agency other than a written interpretation by the Arizona Assistant Attorney General counsel assigned to the Agency will be recognized as binding upon the Agency.

R12-1-1910. Reserved

R12-1-1911. Specific Exemptions

A. The Agency may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the rules in this Article as it

determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

B. Any licensee's NRC-licensed activities are exempt from the requirements of R12-1-1921 through R12-1-1957 of this Article to the extent that its activities are included in a security plan required by 10 CFR part 73 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. A licensee that possesses radioactive waste that contains category 1 or category 2 quantities of radioactive material is exempt from the requirements of R12-1-1921 through R12-1-1981 of this Article, except that any radioactive waste that contains discrete sources, ion-exchange resins, or activated material that weighs less than 2,000 kg (4,409 lbs.) is not exempt from the requirements of this Article. The licensee shall implement the following requirements to secure the radioactive waste:

1. Use continuous physical barriers that allow access to the radioactive waste only through established access control points;

2. Use a locked door or gate with monitored alarm at the access control point;

3. Assess and respond to each actual or attempted unauthorized access to determine whether an actual or attempted theft, sabotage, or diversion occurred; and

4. Immediately notify the LLEA and request an armed response from the LLEA upon determination that there was an actual or attempted theft, sabotage, or

diversion of the radioactive waste that contains category 1 or category 2 quantities of radioactive material.

R12-1-1912. Reserved

R12-1-1913. Reserved

R12-1-1914. Reserved

R12-1-1915. Reserved

R12-1-1916. Reserved

R12-1-1917. Reserved

R12-1-1918. Reserved

R12-1-1919. Reserved

R12-1-1920. Reserved

R12-1-1921. Personnel Access Authorization Requirements for Category 1 or Category 2 Quantities of Radioactive Material

A. General:

1. Each licensee that possesses an aggregated quantity of radioactive material at or above the category 2 threshold shall establish, implement, and maintain its access authorization program in accordance with the requirements of this Article.

2. An applicant for a new license and each licensee that would become newly subject to the requirements of this Article upon application for modification of its license shall implement the requirements of this Article, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material.

3. Any licensee that has not previously implemented the Security Orders or been subject to the provisions of R12-1-1921 through R12-1-1933 shall implement the provisions of R12-1-1921 through R12-1-1933 before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold.

B. General performance objective:

The licensee's access authorization program shall ensure that the individuals specified in paragraph (C)(1) of this section are trustworthy and reliable.

C. Applicability:

1. Licensees shall subject the following individuals to an access authorization program:

a. Any individual whose assigned duties require unescorted access to category 1 or category 2 quantities of radioactive material or to any device that contains the radioactive material; and

b. Reviewing officials.

2. Licensees need not subject the categories of individuals listed in R12-1-1929(A) to the investigation elements of the access authorization program.

3. Licensees shall approve for unescorted access to category 1 or category 2 quantities of radioactive material only those individuals with job duties that require unescorted access to category 1 or category 2 quantities of radioactive material.

4. Licensees may include individuals in the access authorization program under R12-1-1921 through R12-1-1933 and needing access to safeguards information-modified handling under 10 CFR part 73 revised January 1, 2015,

incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

R12-1-1922. Reserved

R12-1-1923. Access Authorization Program Requirements

A. Granting unescorted access authorization:

1. Licensees shall implement the requirements of this Article for granting initial or reinstated unescorted access authorization.

2. Individuals who have been determined to be trustworthy and reliable shall also complete the security training required by R12-1-1943(C) before being allowed unescorted access to category 1 or category 2 quantities of radioactive material.

B. Reviewing officials:

1. Reviewing officials are the only individuals who may make trustworthiness and reliability determinations that allow individuals to have unescorted access to category 1 or category 2 quantities of radioactive materials possessed by the licensee.

2. Each licensee shall name one or more individuals to be reviewing officials. After completing the background investigation on the reviewing official, the licensee shall provide under oath or affirmation, a certification that the reviewing official is deemed trustworthy and reliable by the licensee. The fingerprints of the named reviewing official shall be taken by a law enforcement agency, Federal or State agencies that provide fingerprinting services to the public, or commercial fingerprinting services authorized by a State to take

fingerprints. The licensee shall recertify that the reviewing official is deemed trustworthy and reliable every 10 years in accordance with R12-1-1925(C).

3. Reviewing officials shall be permitted to have unescorted access to category 1 or category 2 quantities of radioactive materials or access to safeguards information or safeguards information-modified handling, if the licensee possesses safeguards information or safeguards information-modified handling. Reviewing officials permitted unescorted access to category 1 or category 2 quantities of radioactive materials shall receive appropriate radiation safety training initially and at a frequency not to exceed 12 months. The licensee shall maintain records of the initial and refresher training for three years from the date of training for Agency review.

4. Reviewing officials cannot approve other individuals to act as reviewing officials.

5. A reviewing official does not need to undergo a new background investigation before being named by the licensee as the reviewing official if:

a. The individual has undergone a background investigation that included fingerprinting and an FBI criminal history records check and has been determined to be trustworthy and reliable by the licensee; or

b. The individual is subject to a category listed in R12-1-1929(A).

C. Informed consent:

1. Licensees may not initiate a background investigation without the informed and signed consent of the subject individual. This consent shall include authorization to share personal information with other individuals or

organizations as necessary to complete the background investigation. Before a final adverse determination, the licensee shall provide the individual with an opportunity to correct any inaccurate or incomplete information that is developed during the background investigation. Licensees do not need to obtain signed consent from those individuals that meet the requirements of R12-1-1925(B). A signed consent shall be obtained prior to any reinvestigation.

2. The subject individual may withdraw his or her consent at any time. Licensees shall inform the individual that:

a. If an individual withdraws his or her consent, the licensee may not initiate any elements of the background investigation that were not in progress at the time the individual withdrew his or her consent; and

b. The withdrawal of consent for the background investigation is sufficient cause for denial or termination of unescorted access authorization.

D. Personal history disclosure:

Any individual who is applying for unescorted access authorization shall disclose the personal history information that is required by the licensee's access authorization program for the reviewing official to make a determination of the individual's trustworthiness and reliability. Refusal to provide, or the falsification of, any personal history information required by this Article is sufficient cause for denial or termination of unescorted access.

E. Determination basis:

1. The reviewing official shall determine whether to permit, deny, unfavorably terminate, maintain, or administratively withdraw an individual's unescorted access authorization based on an evaluation of all of the information collected to meet the requirements of this Article.

2. The reviewing official may not permit any individual to have unescorted access until the reviewing official has evaluated all of the information collected to meet the requirements of this Article and determined that the individual is trustworthy and reliable. The reviewing official may deny unescorted access to any individual based on information obtained at any time during the background investigation.

3. The licensee shall document the basis for concluding whether or not there is reasonable assurance that an individual is trustworthy and reliable.

4. The reviewing official may terminate or administratively withdraw an individual's unescorted access authorization based on information obtained after the background investigation has been completed and the individual granted unescorted access authorization.

5. Licensees shall maintain a list of persons currently approved for unescorted access authorization. When a licensee determines that a person no longer requires unescorted access or meets the access authorization requirement, the licensee shall remove the person from the approved list as soon as possible, but no later than 7 working days, and take prompt measures to ensure that the individual is unable to have unescorted access to the material.

F. Procedures:

Licensees shall develop, implement, and maintain written procedures for implementing the access authorization program. The procedures shall include provisions for the notification of individuals who are denied unescorted access. The procedures shall include provisions for the review, at the request of the affected individual, of a denial or termination of unescorted access authorization. The procedures shall contain a provision to ensure that the individual is informed of the grounds for the denial or termination of unescorted access authorization and allow the individual an opportunity to provide additional relevant information.

G. Right to correct and complete information:

1. Prior to any final adverse determination, licensees shall provide each individual subject to this Article with the right to complete, correct, and explain information obtained as a result of the licensee's background investigation. Confirmation of receipt by the individual of this notification shall be maintained by the licensee for a period of 1 year from the date of the notification.

2. If, after reviewing his or her criminal history record, an individual believes that it is incorrect or incomplete in any respect and wishes to change, correct, update, or explain anything in the record, the individual may initiate challenge procedures. These procedures include direct application by the individual challenging the record to the law enforcement agency that contributed the questioned information or a direct challenge as to the accuracy or completeness of any entry on the criminal history record to the Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Division, ATTN: SCU, Mod. D–2, 1000 Custer Hollow Road, Clarksburg, WV 26306 as set forth in 28 CFR 16.30

through 16.34. In the latter case, the Federal Bureau of Investigation (FBI) will forward the challenge to the agency that submitted the data, and will request that the agency verify or correct the challenged entry. Upon receipt of an official communication directly from the agency that contributed the original information, the FBI Identification Division makes any changes necessary in accordance with the information supplied by that agency. Licensees shall provide at least 10 days for an individual to initiate action to challenge the results of an FBI criminal history records check after the record being made available for his or her review. The licensee may make a final adverse determination based upon the criminal history records only after receipt of the FBI's confirmation or correction of the record.

H. Records:

1. The licensee shall retain documentation regarding the trustworthiness and reliability of individual employees for 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

2. The licensee shall retain a copy of the current access authorization program procedures as a record for 3 years after the procedure is no longer needed. If any portion of the procedure is superseded, the licensee shall retain the superseded material for 3 years after the record is superseded.

3. The licensee shall retain the list of persons approved for unescorted access authorization for 3 years after the list is superseded or replaced.

R12-1-1924. Reserved

R12-1-1925. Background Investigations

A. Initial investigation:

Before allowing an individual unescorted access to category 1 or category 2 quantities of radioactive material or to the devices that contain the material, licensees shall complete a background investigation of the individual seeking unescorted access authorization. The scope of the investigation shall encompass at least the 7 years preceding the date of the background investigation or since the individual's eighteenth birthday, whichever is shorter. The background investigation shall include at a minimum:

1. Fingerprinting and an FBI identification and criminal history records check in accordance with R12-1-1927;

2. Verification of true identity. Licensees shall verify the true identity of the individual who is applying for unescorted access authorization to ensure that the applicant is who he or she claims to be. A licensee shall review official identification documents (e.g., driver's license; passport; government identification; certificate of birth issued by the state, province, or country of birth) and compare the documents to personal information data provided by the individual to identify any discrepancy in the information. Licensees shall document the type, expiration, and identification number of the identification document, or maintain a photocopy of identifying documents on file in accordance with R12-1-1931. Licensees shall certify in writing that the identification was properly reviewed, and shall maintain the certification and all related documents for review upon inspection;

3. Employment history verification. Licensees shall complete an employment history verification, including military history. Licensees shall verify the individual's employment with each previous employer for the most recent 7 years before the date of application;

4. Verification of education. Licensees shall verify that the individual participated in the education process during the claimed period;

5. Character and reputation determination. Licensees shall complete reference checks to determine the character and reputation of the individual who has applied for unescorted access authorization. Unless other references are not available, reference checks may not be conducted with any person who is known to be a close member of the individual's family, including but not limited to the individual's spouse, parents, siblings, or children, or any individual who resides in the individual's permanent household. Reference checks under this section shall be limited to whether the individual has been and continues to be trustworthy and reliable;

6. The licensee shall also, to the extent possible, obtain independent information to corroborate that provided by the individual (e.g., seek references not supplied by the individual); and

7. If a previous employer, educational institution, or any other entity with which the individual claims to have been engaged fails to provide information or indicates an inability or unwillingness to provide information within a time frame deemed appropriate by the licensee but at least after 10 business days of the request or if the licensee is unable to reach the entity, the licensee shall document

the refusal, unwillingness, or inability in the record of investigation; and attempt to obtain the information from an alternate source.

B. Grandfathering:

1. Individuals who have been determined to be trustworthy and reliable for unescorted access to category 1 or category 2 quantities of radioactive material under the Fingerprint Orders may continue to have unescorted access to category 1 and category 2 quantities of radioactive material without further investigation. These individuals shall be subject to the reinvestigation requirement.

2. Individuals who have been determined to be trustworthy and reliable under the provisions of 10 CFR part 73 revised January 1, 2015, incorporated by reference, available under R12-1-101, and containing no future editions or amendments; or the security orders for access to safeguards information, safeguards information-modified handling, or risk-significant material may have unescorted access to category 1 and category 2 quantities of radioactive material without further investigation. The licensee shall document that the individual was determined to be trustworthy and reliable under the provisions of 10 CFR part 73 revised January 1, 2015, incorporated by reference, available under R12-1-101, and containing no future editions or amendments; or a security order. Security order, in this context, refers to any order that was issued by the NRC that required fingerprints and an FBI criminal history records check for access to safeguards information, safeguards information-modified handling, or risk significant material such as special nuclear material or large quantities of uranium

hexafluoride. These individuals shall be subject to the reinvestigation requirement.

C. Reinvestigations:

Licensees shall conduct a reinvestigation every 10 years for any individual with unescorted access to category 1 or category 2 quantities of radioactive material. The reinvestigation shall consist of fingerprinting and an FBI identification and criminal history records check in accordance with R12-1-1927. The reinvestigations shall be completed within 10 years of the date on which these elements were last completed.

R12-1-1926. Reserved

R12-1-1927. Requirements for Criminal History Records Checks of Individuals Granted Unescorted Access to Category 1 or Category 2 Quantities of Radioactive Material

A. General performance objective and requirements:

1. Except for those individuals listed in R12-1-1929 and those individuals grandfathered under R12-1-1925(B), each licensee subject to the provisions of this Article shall fingerprint each individual who is to be permitted unescorted access to category 1 or category 2 quantities of radioactive material. Licensees shall transmit all collected fingerprints to the Agency for transmission to the FBI. The licensee shall use the information received from the FBI as part of the required background investigation to determine whether to grant or deny further unescorted access to category 1 or category 2 quantities of radioactive materials for that individual.

2. The licensee shall notify each affected individual that his or her fingerprints will be used to secure a review of his or her criminal history record, and shall inform him or her of the procedures for revising the record or adding explanations to the record.

3. Fingerprinting is not required if a licensee is reinstating an individual's unescorted access authorization to category 1 or category 2 quantities of radioactive materials if:

a. The individual returns to the same facility that granted unescorted access authorization within 365 days of the termination of his or her unescorted access authorization; and

b. The previous access was terminated under favorable conditions.

4. Fingerprints do not need to be taken if an individual who is an employee of a licensee, contractor, manufacturer, or supplier has been granted unescorted access to category 1 or category 2 quantities of radioactive material, access to safeguards information, or safeguards information-modified handling by another licensee, based upon a background investigation conducted under this Article, the Fingerprint Orders, or 10 CFR part 73 revised January 1, 2015, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. An existing criminal history records check file may be transferred to the licensee asked to grant unescorted access in accordance with the provisions of R12-1-1931(C).

5. Licensees shall use the information obtained as part of a criminal history records check solely for the purpose of determining an individual's suitability for

unescorted access authorization to category 1 or category 2 quantities of radioactive materials, access to safeguards information, or safeguards information-modified handling.

B. Prohibitions:

1. Licensees may not base a final determination to deny an individual unescorted access authorization to category 1 or category 2 quantities of radioactive material solely on the basis of information received from the FBI involving:

a. An arrest more than 1 year old for which there is no information of the disposition of the case; or

b. An arrest that resulted in dismissal of the charge or an acquittal.

2. Licensees may not use information received from a criminal history records check obtained under this section in a manner that would infringe upon the rights of any individual under the First Amendment to the Constitution of the United States, nor shall licensees use the information in any way that would discriminate among individuals on the basis of race, religion, national origin, gender, or age.

C. Procedures for processing of fingerprint checks:

1. For the purpose of complying with this Article, licensees shall use an appropriate method listed in 10 CFR 37.7 revised January 1, 2015, incorporated by reference, available under R12-1-101, and containing no future editions or amendments; to submit to the U.S. Nuclear Regulatory Commission, Director, Division of Facilities and Security, 11545 Rockville Pike, ATTN: Criminal

History Program/Mail Stop TWB–05 B32M, Rockville, Maryland 20852, one completed, legible standard fingerprint card (Form FD–258, ORIMDNRCOOOZ), electronic fingerprint scan or, where practicable, other fingerprint record for each individual requiring unescorted access to category 1 or category 2 quantities of radioactive material. Copies of these forms may be obtained by writing the Office of Information Services, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, by calling 1–630–829–9565, or by email to FORMS.Resource@nrc.gov. Guidance on submitting electronic fingerprints can be found at *http://www.nrc.gov/site-help/e-submittals.html.*

2. Fees for the processing of fingerprint checks are due upon application. Licensees shall submit payment with the application for the processing of fingerprints through corporate check, certified check, cashier's check, money order, or electronic payment, made payable to "U.S. NRC." (For guidance on making electronic payments, contact the Security Branch, Division of Facilities and Security at 301–492–3531.) Combined payment for multiple applications is acceptable. The Commission publishes the amount of the fingerprint check application fee on the NRC's public Web site. (To find the current fee amount, go to the Electronic Submittals page at *http://www.nrc.gov/site-help/e-submittals.html* and see the link for the Criminal History Program under Electronic Submission Systems.)

3. The U.S Nuclear Regulatory Commission will forward to the submitting licensee all data received from the FBI as a result of the licensee's application(s) for criminal history records checks.

R12-1-1928. Reserved

R12-1-1929. Relief From Fingerprinting, Identification, and Criminal History Records Checks and Other Elements of Background Investigations for Designated Categories of Individuals Permitted Unescorted Access to Certain Radioactive Materials

A. Fingerprinting, and the identification and criminal history records checks required by section 149 of the Atomic Energy Act of 1954, as amended, and other elements of the background investigation are not required for the following individuals prior to granting unescorted access to category 1 or category 2 quantities of radioactive materials:

1. An employee of the U.S. Nuclear Regulatory Commission or of the Executive Branch of the U.S. Government who has undergone fingerprinting for a prior U.S. Government criminal history records check;

2. A Member of Congress;

3. An employee of a member of Congress or Congressional committee who has undergone fingerprinting for a prior U.S. Government criminal history records check;

4. The Governor of a State or his or her designated State employee representative;

5. Federal, State, or local law enforcement personnel;

6. State Radiation Control Program Directors and State Homeland Security Advisors or their designated State employee representatives;

7. Agreement State employees conducting security inspections on behalf of the NRC under an agreement executed under section 274.i. of the Atomic Energy Act;

8. Representatives of the International Atomic Energy Agency (IAEA) engaged in activities associated with the U.S./IAEA Safeguards Agreement who have been certified by the NRC;

9. Emergency response personnel who are responding to an emergency;

10. Commercial vehicle drivers for road shipments of category 1 and category 2 quantities of radioactive material;

11. Package handlers at transportation facilities such as freight terminals and railroad yards;

12. Any individual who has an active Federal security clearance, provided that he or she makes available the appropriate documentation. Written confirmation from the agency/employer that granted the Federal security clearance or reviewed the criminal history records check shall be provided to the licensee. The licensee shall retain this documentation for a period of 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material; and

13. Any individual employed by a service provider licensee for which the service provider licensee has conducted the background investigation for the individual and approved the individual for unescorted access to category 1 or category 2 quantities of radioactive material. Written verification from the service provider shall be provided to the licensee. The licensee shall retain the

documentation for a period of 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

B. Fingerprinting, and the identification and criminal history records checks required by section 149 of the Atomic Energy Act of 1954, as amended, are not required for an individual who has had a favorably adjudicated U.S. Government criminal history records check within the last 5 years, under a comparable U.S. Government program involving fingerprinting and an FBI identification and criminal history records check provided that he or she makes available the appropriate documentation. Written confirmation from the agency/employer that reviewed the criminal history records check shall be provided to the licensee. The licensee shall retain this documentation for a period of 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material. These programs include, but are not limited to:

1. National Agency Check;

2. Transportation Worker Identification Credentials (TWIC) under 49 CFR part 1572;

3. Bureau of Alcohol, Tobacco, Firearms, and Explosives background check and clearances under 27 CFR part 555;

4. Health and Human Services security risk assessments for possession and use of select agents and toxins under 42 CFR part 73;

5. Hazardous Material security threat assessment for hazardous material endorsement to commercial driver's license under 49 CFR part 1572; and

6. Customs and Border Protection's Free and Secure Trade (FAST) Program.

R12-1-1930. Reserved

R12-1-1931. Protection of Information

A. Each licensee who obtains background information on an individual under this Article shall establish and maintain a system of files and written procedures for protection of the record and the personal information from unauthorized disclosure.

B. The licensee may not disclose the record or personal information collected and maintained to persons other than the subject individual, his or her representative, or to those who have a need to have access to the information in performing assigned duties in the process of granting or denying unescorted access to category 1 or category 2 quantities of radioactive material, safeguards information, or safeguards information-modified handling. No individual authorized to have access to the information may disseminate the information to any other individual who does not have a need to know.

C. The personal information obtained on an individual from a background investigation may be provided to another licensee:

1. Upon the individual's written request to the licensee holding the data to disseminate the information contained in his or her file; and

2. The recipient licensee verifies information such as name, date of birth, social security number, gender, and other applicable physical characteristics.

D. The licensee shall make background investigation records obtained under this Article available for examination by an authorized representative of the Agency to determine compliance with the rules and laws.

E. The licensee shall retain all fingerprint and criminal history records (including data indicating no record) received from the FBI, or a copy of these records if the individual's file has been transferred, on an individual for 3 years from the date the individual no longer requires unescorted access to category 1 or category 2 quantities of radioactive material.

R12-1-1932. Reserved

R12-1-1933. Access Authorization Program Review

A. Each licensee shall be responsible for the continuing effectiveness of the access authorization program. Each licensee shall ensure that access authorization programs are reviewed to confirm compliance with the requirements of this Article and that comprehensive actions are taken to correct any noncompliance that is identified. The review program shall evaluate all program performance objectives and requirements. Each licensee shall periodically (at least annually) review the access program content and implementation.

B. The results of the reviews, along with any recommendations, shall be documented. Each review report shall identify conditions that are adverse to the proper performance of the access authorization program, the cause of the condition(s), and, when appropriate, recommend corrective actions, and corrective actions taken. The licensee shall review the findings and take any additional corrective actions necessary to preclude repetition of the condition, including reassessment of the deficient areas where indicated.

C. Review records shall be maintained for 3 years.

R12-1-1934. Reserved

R12-1-1935. Reserved

R12-1-1936. Reserved

R12-1-1937. Reserved

R12-1-1938. Reserved

R12-1-1939. Reserved

R12-1-1940. Reserved

R12-1-1941. Security Program

A. Applicability:

1. Each licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material shall establish, implement, and maintain a security program in accordance with the requirements of this Article.

2. An applicant for a new license and each licensee that would become newly subject to the requirements of this Article upon application for modification of its license shall implement the requirements of this Article, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material.

3. Any licensee that has not previously implemented the Security Orders or been subject to the provisions of R12-1-1941 through R12-1-1957 shall provide written notification to the Agency, as specified in R12-1-1907, at least 90 days before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold.

B. General performance objective:

1. Each licensee shall establish, implement, and maintain a security program that is designed to monitor and, without delay, detect, assess, and respond to an actual or attempted unauthorized access to category 1 or category 2 quantities of radioactive material.

C. Program features:

1. Each licensee's security program shall include the program features, as appropriate, described in R12-1-1943, 1945, 1947, 1949, 1951, 1953, and 1955.

R12-1-1942. Reserved

R12-1-1943. General Security Program Requirements

A. Security plan:

1. Each licensee identified in R12-1-1941(A) shall develop a written security plan specific to its facilities and operations. The purpose of the security plan is to establish the licensee's overall security strategy to ensure the integrated and effective functioning of the security program required by this Article. The security plan shall, at a minimum:

a. Describe the measures and strategies used to implement the requirements of this Article; and

b. Identify the security resources, equipment, and technology used to satisfy the requirements of this Article.

2. The security plan shall be reviewed and approved by the individual with overall responsibility for the security program.

3. A licensee shall revise its security plan as necessary to ensure the effective implementation of Agency requirements. The licensee shall ensure that:

a. The revision has been reviewed and approved by the individual with overall responsibility for the security program; and

b. The affected individuals are instructed on the revised plan before the changes are implemented.

4. The licensee shall retain a copy of the current security plan as a record for 3 years after the security plan is no longer required. If any portion of the plan is superseded, the licensee shall retain the superseded material for 3 years after the record is superseded.

B. Implementing procedures:

1. The licensee shall develop and maintain written procedures that document how the requirements of this Article and the security plan will be met.

2. The implementing procedures and revisions to these procedures shall be approved in writing by the individual with overall responsibility for the security program.

3. The licensee shall retain a copy of the current procedure as a record for 3 years after the procedure is no longer needed. Superseded portions of the procedure shall be retained for 3 years after the record is superseded.

C. Training:

1. Each licensee shall conduct training to ensure that those individuals implementing the security program possess and maintain the knowledge, skills, and abilities to carry out their assigned duties and responsibilities effectively. The training shall include instruction in:

a. The licensee's security program and procedures to secure category 1 or category 2 quantities of radioactive material, and in the purposes and functions of the security measures employed;

b. The responsibility to report promptly to the licensee any condition that causes or may cause a violation of Agency requirements;

c. The responsibility of the licensee to report promptly to the local law enforcement agency and licensee any actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material; and

d. The appropriate response to security alarms.

2. In determining those individuals who shall be trained on the security program, the licensee shall consider each individual's assigned activities during authorized use and response to potential situations involving actual or attempted theft, diversion, or sabotage of category 1 or category 2 quantities of radioactive material. The extent of the training shall be commensurate with the individual's potential involvement in the security of category 1 or category 2 quantities of radioactive material.

3. Refresher training shall be provided at a frequency not to exceed 12 months and when significant changes have been made to the security program. This training shall include:

a. Review of the training requirements of paragraph (c) of this section and any changes made to the security program since the last training;

b. Reports on any relevant security issues, problems, and lessons learned;

c. Relevant results of Agency inspections; and

d. Relevant results of the licensee's program review and testing and maintenance.

4. The licensee shall maintain records of the initial and refresher training for 3 years from the date of the training. The training records shall include dates of the training, topics covered, a list of licensee personnel in attendance, and related information.

D. Protection of information:

1. Licensees authorized to possess category 1 or category 2 quantities of radioactive material shall limit access to and unauthorized disclosure of their security plan, implementing procedures, and the list of individuals that have been approved for unescorted access.

2. Efforts to limit access shall include the development, implementation, and maintenance of written policies and procedures for controlling access to, and for proper handling and protection against unauthorized disclosure of, the security plan and implementing procedures.

3. Before granting an individual access to the security plan or implementing procedures, licensees shall:

a. Evaluate an individual's need to know the security plan or implementing procedures; and

b. If the individual has not been authorized for unescorted access to category 1 or category 2 quantities of radioactive material, safeguards information, or safeguards information-modified handling, the licensee shall complete a background investigation to determine the individual's trustworthiness and reliability. A trustworthiness and reliability determination shall be conducted by the reviewing official and shall include the background investigation elements contained in R12-1-1925(A)(2) through (A)(7).

4. Licensees need not subject the following individuals to the background investigation elements for protection of information:

a. The categories of individuals listed in R12-1-1929(A); or

b. Security service provider employees, provided written verification that the employee has been determined to be trustworthy and reliable, by the required background investigation in R12-1-1925(A)(2) through (A)(7), has been provided by the security service provider.

5. The licensee shall document the basis for concluding that an individual is trustworthy and reliable and should be granted access to the security plan or implementing procedures.

6. Licensees shall maintain a list of persons currently approved for access to the security plan or implementing procedures. When a licensee determines that a person no longer needs access to the security plan or implementing procedures or no longer meets the access authorization requirements for access to the information, the licensee shall remove the person from the approved list as soon

as possible, but no later than 7 working days, and take prompt measures to ensure that the individual is unable to obtain the security plan or implementing procedures.

7. When not in use, the licensee shall store its security plan and implementing procedures in a manner to prevent unauthorized access. Information stored in non-removable electronic form shall be password protected.

8. The licensee shall retain as a record for 3 years after the document is no longer needed:

a. A copy of the information protection procedures; and

b. The list of individuals approved for access to the security plan or implementing procedures.

R12-1-1944. Reserved

R12-1-1945. Local Law Enforcement Agency (LLEA) Coordination

A. A licensee subject to this Article shall coordinate, to the extent practicable, with an LLEA for responding to threats to the licensee's facility, including any necessary armed response. The information provided to the LLEA shall include:

1. A description of the facilities and the category 1 and category 2 quantities of radioactive materials along with a description of the licensee's security measures that have been implemented to comply with this Article; and

2. A notification that the licensee will request a timely armed response by the LLEA to any actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of material.

B. The licensee shall notify the Agency listed in R12-1-1907 of this Article within 3 business days if:

1. The LLEA has not responded to the request for coordination within 60 days of the coordination request; or

2. The LLEA notifies the licensee that the LLEA does not plan to participate in coordination activities.

C. The licensee shall document its efforts to coordinate with the LLEA. The documentation shall be kept for 3 years.

D. The licensee shall coordinate with the LLEA at least every 12 months, or when changes to the facility design or operation adversely affect the potential vulnerability of the licensee's material to theft, sabotage, or diversion.

R12-1-1946. Reserved

R12-1-1947. Security Zones

A. Licensees shall ensure that all aggregated category 1 and category 2 quantities of radioactive material are used or stored within licensee established security zones. Security zones may be permanent or temporary.

B. Temporary security zones shall be established as necessary to meet the licensee's transitory or intermittent business activities, such as periods of maintenance, source delivery, and source replacement.

C. Security zones shall, at a minimum, allow unescorted access only to approved individuals through:

1. Isolation of category 1 and category 2 quantities of radioactive materials by the use of continuous physical barriers that allow access to the security zone

only through established access control points. A physical barrier is a natural or man-made structure or formation sufficient for the isolation of the category 1 or category 2 quantities of radioactive material within a security zone; or

2. Direct control of the security zone by approved individuals at all times; or

3. A combination of continuous physical barriers and direct control.

D. For category 1 quantities of radioactive material during periods of maintenance, source receipt, preparation for shipment, installation, or source removal or exchange, the licensee shall, at a minimum, provide sufficient individuals approved for unescorted access to maintain continuous surveillance of sources in temporary security zones and in any security zone in which physical barriers or intrusion detection systems have been disabled to allow such activities.

E. Individuals not approved for unescorted access to category 1 or category 2 quantities of radioactive material shall be escorted by an approved individual when in a security zone.

R12-1-1948. Reserved

R12-1-1949. Monitoring, Detection, and Assessment

A. Monitoring and detection:

1. Licensees shall establish and maintain the capability to continuously monitor and detect without delay all unauthorized entries into its security zones. Licensees shall provide the means to maintain continuous monitoring and detection capability in the event of a loss of the primary power source, or provide for an alarm and response in the event of a loss of this capability to continuously monitor and detect unauthorized entries.

2. Monitoring and detection shall be performed by:

a. A monitored intrusion detection system that is linked to an onsite or offsite central monitoring facility;

b. Electronic devices for intrusion detection alarms that will alert nearby facility personnel;

c. A monitored video surveillance system;

d. Direct visual surveillance by approved individuals located within the security zone; or

e. Direct visual surveillance by a licensee designated individual located outside the security zone.

3. A licensee subject to this Article shall also have a means to detect unauthorized removal of the radioactive material from the security zone. This detection capability shall provide:

a. For category 1 quantities of radioactive material, immediate detection of any attempted unauthorized removal of the radioactive material from the security zone. Such immediate detection capability shall be provided by:

i. Electronic sensors linked to an alarm;

ii. Continuous monitored video surveillance; or

iii. Direct visual surveillance.

b. For category 2 quantities of radioactive material, weekly verification through physical checks, tamper indicating devices, use, or other means to ensure that the radioactive material is present.

B. Assessment:

Licensees shall immediately assess each actual or attempted unauthorized entry into the security zone to determine whether the unauthorized access was an actual or attempted theft, sabotage, or diversion.

C. Personnel communications and data transmission:

For personnel and automated or electronic systems supporting the licensee's monitoring, detection, and assessment systems, licensees shall:

1. Maintain continuous capability for personnel communication and electronic data transmission and processing among site security systems; and

2. Provide an alternative communication capability for personnel, and an alternative data transmission and processing capability, in the event of a loss of the primary means of communication or data transmission and processing. Alternative communications and data transmission systems may not be subject to the same failure modes as the primary systems.

D. Response:

Licensees shall immediately respond to any actual or attempted unauthorized access to the security zones, or actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material at licensee facilities or temporary job sites. For any unauthorized access involving an actual or attempted theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material, the licensee's response shall include requesting, without delay, an armed response from the LLEA.

R12-1-1950. Reserved

R12-1-1951. Maintenance and Testing

A. Each licensee subject to this R12-1-1941 through R12-1-1957 shall implement a maintenance and testing program to ensure that intrusion alarms, associated communication systems, and other physical components of the systems used to secure or detect unauthorized access to radioactive material are maintained in operable condition and are capable of performing their intended function when needed. The equipment relied on to meet the security requirements of this part shall be inspected and tested for operability and performance at the manufacturer's suggested frequency. If there is no suggested manufacturer's suggested frequency, the testing shall be performed at least annually, not to exceed 12 months.

B. The licensee shall maintain records on the maintenance and testing activities for 3 years. The record shall include:

1. The date of activity;
2. Type of activity performed;
3. A list of the equipment involved;
4. The results of the activity;
5. The name of the individual that conducted the activity; and
6. The repair or maintenance (if applicable) that was performed.

R12-1-1952. Reserved

R12-1-1953. Requirements for Mobile Devices

Each licensee that possesses mobile devices containing category 1 or category 2 quantities of radioactive material shall:

A. Have two independent physical controls that form tangible barriers to secure the material from unauthorized removal when the device is not under direct control and constant surveillance by the licensee; and

B. For devices in or on a vehicle or trailer, unless the health and safety requirements for a site prohibit the disabling of the vehicle, the licensee shall utilize a method to disable the vehicle or trailer when not under direct control and constant surveillance by the licensee. Licensees shall not rely on the removal of an ignition key to meet this requirement.

R12-1-1954. Reserved

R12-1-1955. Security Program Review

A. Each licensee shall be responsible for the continuing effectiveness of the security program. Each licensee shall ensure that the security program is reviewed to confirm compliance with the requirements of this Article and that comprehensive actions are taken to correct any noncompliance that is identified. The review shall include the radioactive material security program content and implementation. Each licensee shall periodically (at least annually) review the security program content and implementation.

B. The results of the review, along with any recommendations, shall be documented. Each review report shall identify conditions that are adverse to the proper performance of the security program, the cause of the condition(s), and, when appropriate, recommend corrective actions, and corrective actions taken. The licensee shall review the findings and take any additional corrective actions necessary to preclude repetition of the condition, including reassessment of the deficient areas where indicated.

C. The licensee shall maintain the review documentation for 3 years.

R12-1-1956. Reserved

R12-1-1957. Reporting of Events

A. The licensee shall immediately notify the LLEA after determining that an unauthorized entry resulted in an actual or attempted theft, sabotage, or diversion of a category 1 or category 2 quantity of radioactive material. As soon as possible after initiating a response, but not at the expense of causing delay or interfering with the LLEA response to the event, the licensee shall notify the Agency. Notification shall be to a live person, a voicemail is not considered adequate notification. In no case shall the notification to the Agency be later than 4 hours after the discovery of any attempted or actual theft, sabotage, or diversion.

B. The licensee shall assess any suspicious activity related to possible theft, sabotage, or diversion of category 1 or category 2 quantities of radioactive material and notify the LLEA as appropriate. As soon as possible but not later than 4 hours after notifying the LLEA, the licensee shall notify the Agency.

C. The initial telephonic notification required by subsection (A) of this section shall be followed within a period of 30 days by a written report submitted to the Agency by an appropriate method listed in R12-1-1907. The report shall include sufficient information for Agency analysis and evaluation, including identification of any necessary corrective actions to prevent future instances.

R12-1-1958. Reserved

R12-1-1959. Reserved

R12-1-1960. Reserved

R12-1-1961. Reserved

R12-1-1962. Reserved

R12-1-1963. Reserved

R12-1-1964. Reserved

R12-1-1965. Reserved

R12-1-1966. Reserved

R12-1-1967. Reserved

R12-1-1968. Reserved

R12-1-1969. Reserved

R12-1-1970. Reserved

R12-1-1971. Additional Requirements for Transfer of Category 1 and Category 2 Quantities of Radioactive Material

A licensee transferring a category 1 or category 2 quantity of radioactive material to a licensee of the Agency, NRC, or an Agreement State shall meet the license verification provisions listed below instead of those listed in sections of this chapter:

A. Any licensee transferring category 1 quantities of radioactive material to a licensee of the Agency, NRC, or an Agreement State, prior to conducting such transfer, shall verify with the Agency's license verification system or the license issuing authority that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred and that the licensee is authorized to receive radioactive material at the location requested for delivery. If the verification is conducted by contacting the license issuing authority, the transferor shall document the verification. For transfers within the same organization, the licensee does not need to verify the transfer.

B. Any licensee transferring category 2 quantities of radioactive material to a licensee of the Agency, NRC, or an Agreement State, prior to conducting such transfer, shall verify with the Agency's license verification system or the license issuing authority that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred. If the verification is conducted by contacting the license issuing authority, the transferor shall document the verification. For transfers within the same organization, the licensee does not need to verify the transfer.

C. In an emergency where the licensee cannot reach the license issuing authority and the license verification system is nonfunctional, the licensee may accept a written certification by the transferee that it is authorized by license to receive the type, form, and quantity of radioactive material to be transferred. The certification shall include the license number, current revision number, issuing agency, expiration date, and for a category 1 shipment the authorized address. The licensee shall keep a copy of the certification. The certification shall be confirmed by use of the NRC's license verification system or by contacting the license issuing authority by the end of the next business day.

D. The transferor shall keep a copy of the verification documentation as a record for 3 years.

R12-1-1972. Reserved

R12-1-1973. Applicability of Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Transit

A. For shipments of category 1 quantities of radioactive material, each shipping licensee shall comply with the requirements for physical protection contained in R12-1-1975(A) and (E); 1977; 1979(A)(1), (B)(1), and (C); and 1981(A), (C), (E), (G) and (H).

B. For shipments of category 2 quantities of radioactive material, each shipping licensee shall comply with the requirements for physical protection contained in R12-1-1975(B) through (E); 1979(A)(2), (A)(3), (B)(2), and (C); and 1981(B), (D), (F), (G), and (H). For those shipments of category 2 quantities of radioactive material that meet the criteria of Article 15 of this Chapter, the shipping licensee shall also comply with the advance notification provisions of R12-1-1-1508 or R12-1-1512 as appropriate.

C. The shipping licensee shall be responsible for meeting the requirements of R12-1-1971 through R12-1-1981 unless the receiving licensee has agreed in writing to arrange for the in-transit physical protection required under R12-1-1971 through R12-1-1981.

D. Each licensee that imports or exports category 1 quantities of radioactive material shall comply with the requirements for physical protection during transit contained in R12-1-1975(A)(2) and (E); 1977; 1979(A)(1), (B)(1), and (C); and 1981(A), (C), (E), (G), and (H) for the domestic portion of the shipment.

E. Each licensee that imports or exports category 2 quantities of radioactive material shall comply with the requirements for physical protection during transit contained in R12-1-1979(A)(2), (A)(3), and (B)(2); and 1981(B), (D), (F), (G), and (H) for the domestic portion of the shipment.

R12-1-1974. Reserved

R12-1-1975. Preplanning and Coordination of Shipment of Category 1 or Category 2 Quantities of Radioactive Material

A. Each licensee that plans to transport, or deliver to a carrier for transport, licensed material that is a category 1 quantity of radioactive material outside the confines of the licensee's facility or other place of use or storage shall:

1. Preplan and coordinate shipment arrival and departure times with the receiving licensee;

2. Preplan and coordinate shipment information with the governor or the governor's designee of any State through which the shipment will pass to:

a. Discuss the State's intention to provide law enforcement escorts; and

b. Identify safe havens; and

3. Document the preplanning and coordination activities.

B. Each licensee that plans to transport, or deliver to a carrier for transport, licensed material that is a category 2 quantity of radioactive material outside the confines of the licensee's facility or other place of use or storage shall coordinate the shipment no-later-than arrival time and the expected shipment arrival with the receiving licensee. The licensee shall document the coordination activities.

C. Each licensee who receives a shipment of a category 2 quantity of radioactive material shall confirm receipt of the shipment with the originator. If the shipment has not arrived by the no-later-than arrival time, the receiving licensee shall notify the originator.

D. Each licensee, who transports or plans to transport a shipment of a category 2 quantity of radioactive material, and determines that the shipment will arrive after the no-later-than arrival time provided pursuant to paragraph (B) of this section, shall promptly notify the receiving licensee of the new no-later-than arrival time.

E. The licensee shall retain a copy of the documentation for preplanning and coordination and any revision thereof, as a record for 3 years.

R12-1-1976. Reserved

R12-1-1977. Advance Notification of Shipment of Category 1 Quantities of Radioactive Material

As specified in paragraphs (A) and (B) of this section, each licensee shall provide advance notification to the Agency and the governor of a State, or the governor's designee, of the shipment of licensed material in a category 1 quantity, through or across the boundary of the State, before the transport, or delivery to a carrier for transport of the licensed material outside the confines of the licensee's facility or other place of use or storage.

A. Procedures for submitting advance notification:

1. The notification shall be made to the Agency and to the office of each appropriate governor or governor's designee. The contact information, including telephone and mailing addresses, of governors and governors' designees, is available on the NRC's Web site at *http://nrc-stp.ornl.gov/special/designee.pdf.* A list of the contact information is also available upon request from the Director, Division of Material Safety, State, Tribal, and Rulemaking Programs, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001. Notifications to the Agency shall be to the Agency Director or their designee. The notification to the Agency may be made by email to *ram@azrra.gov* or by fax to 602–437–0705.

2. A notification delivered by mail shall be postmarked at least 7 days before transport of the shipment commences at the shipping facility.

3. A notification delivered by any means other than mail shall reach the Agency at least 4 days before the transport of the shipment commences and shall

reach the office of the governor or the governor's designee at least 4 days before transport of a shipment within or through the State.

B. Information to be furnished in advance notification of shipment:

Each advance notification of shipment of category 1 quantities of radioactive material shall contain the following information, if available at the time of notification:

1. The name, address, and telephone number of the shipper, carrier, and receiver of the category 1 radioactive material;

2. The license numbers of the shipper and receiver;

3. A description of the radioactive material contained in the shipment, including the radionuclides and quantity;

4. The point of origin of the shipment and the estimated time and date that shipment will commence;

5. The estimated time and date that the shipment is expected to enter each State along the route;

6. The estimated time and date of arrival of the shipment at the destination; and

7. A point of contact, with a telephone number, for current shipment information.

C. Revision notice:

1. The licensee shall provide any information not previously available at the time of the initial notification, as soon as the information becomes available but not later than commencement of the shipment, to the governor of the State or the

governor's designee and to the Agency's Director at the contact information available in R12-1-1907.

2. A licensee shall promptly notify the governor of the State or the governor's designee of any changes to the information provided in accordance with paragraphs (B) and (C)(1) of this section. The licensee shall also immediately notify the Agency's Director at the contact information available in R12-1-1907 of any such changes.

D. Cancellation notice:

Each licensee who cancels a shipment for which advance notification has been sent shall send a cancellation notice to the governor of each State or to the governor's designee previously notified and to the Agency's Director at the contact information available in R12-1-1907. The licensee shall send the cancellation notice before the shipment would have commenced or as soon thereafter as possible. The licensee shall state in the notice that it is a cancellation and identify the advance notification that is being cancelled.

E. Records:

The licensee shall retain a copy of the advance notification and any revision and cancellation notices as a record for 3 years.

F. Protection of information:

State officials, State employees, and other individuals, whether or not licensees of the Agency, the NRC, or an Agreement State, who receive schedule information of the kind specified R12-1-1977(B) shall protect that information against unauthorized disclosure as specified in R12-1-1943(D) of this Article.

R12-1-1978. Reserved

R12-1-1979. Requirements for Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material During Shipment

A. Shipments by road:

1. Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material shall:

a. Ensure that movement control centers are established that maintain position information from a remote location. These control centers shall monitor shipments 24 hours a day, 7 days a week, and have the ability to communicate immediately, in an emergency, with the appropriate law enforcement agencies.

b. Ensure that redundant communications are established that allow the transport to contact the escort vehicle (when used) and movement control center at all times. Redundant communications may not be subject to the same interference factors as the primary communication.

c. Ensure that shipments are continuously and actively monitored by a telemetric position monitoring system or an alternative tracking system reporting to a movement control center. A movement control center shall provide positive confirmation of the location, status, and control over the shipment. The movement control center shall be prepared to promptly implement preplanned procedures in response to deviations from the authorized route or a notification of actual, attempted, or suspicious activities related to the theft, loss, or diversion of a shipment. These

procedures will include, but not be limited to, the identification of and contact information for the appropriate LLEA along the shipment route.

d. Provide an individual to accompany the driver for those highway shipments with a driving time period greater than the maximum number of allowable hours of service in a 24-hour duty day as established by the Department of Transportation Federal Motor Carrier Safety Administration. The accompanying individual may be another driver.

e. Develop written normal and contingency procedures to address:

i. Notifications to the communication center and law enforcement agencies;

ii. Communication protocols. Communication protocols shall include a strategy for the use of authentication codes and duress codes and provisions for refueling or other stops, detours, and locations where communication is expected to be temporarily lost;

iii. Loss of communications; and

iv. Responses to an actual or attempted theft or diversion of a shipment.

f. Each licensee who makes arrangements for the shipment of category 1 quantities of radioactive material shall ensure that drivers, accompanying personnel, and movement control center personnel have access to the normal and contingency procedures.

2. Each licensee that transports category 2 quantities of radioactive material shall maintain constant control and/or surveillance during transit and have the

capability for immediate communication to summon appropriate response or assistance.

3. Each licensee who delivers to a carrier for transport, in a single shipment, a category 2 quantity of radioactive material shall:

a. Use carriers that have established package tracking systems. An established package tracking system is a documented, proven, and reliable system routinely used to transport objects of value. In order for a package tracking system to maintain constant control and/or surveillance, the package tracking system shall allow the shipper or transporter to identify when and where the package was last and when it should arrive at the next point of control.

b. Use carriers that maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance; and

c. Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

B. Shipments by rail:

1. Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material shall:

a. Ensure that rail shipments are monitored by a telemetric position monitoring system or an alternative tracking system reporting to the licensee, third-party, or railroad communications center. The communications center shall provide positive confirmation of the location

of the shipment and its status. The communications center shall implement preplanned procedures in response to deviations from the authorized route or to a notification of actual, attempted, or suspicious activities related to the theft or diversion of a shipment. These procedures will include, but not be limited to, the identification of and contact information for the appropriate LLEA along the shipment route; and

b. Ensure that periodic reports to the communications center are made at preset intervals.

2. Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 2 quantity of radioactive material shall:

a. Use carriers that have established package tracking systems. An established package tracking system is a documented, proven, and reliable system routinely used to transport objects of value. In order for a package tracking system to maintain constant control and/or surveillance, the package tracking system shall allow the shipper or transporter to identify when and where the package was last and when it should arrive at the next point of control;

b. Use carriers that maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance; and

c. Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

C. Investigations:

Each licensee who makes arrangements for the shipment of category 1 quantities of radioactive material shall immediately conduct an investigation upon the discovery that a category 1 shipment is lost or missing. Each licensee who makes arrangements for the shipment of category 2 quantities of radioactive material shall immediately conduct an investigation, in coordination with the receiving licensee, of any shipment that has not arrived by the designated no-later-than arrival time.

R12-1-1980. Reserved

R12-1-1981. Reporting of Events

A. Within one (1) hour of its determination that a shipment of category 1 quantities of radioactive material is lost or missing, a shipping licensee shall notify the appropriate LLEA and the Agency. The Agency shall be notified by calling 602-255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at 602-223-2212. The appropriate LLEA is the law enforcement agency in the area of the shipment's last confirmed location. During the investigation required by R12-1-1979(C), the shipping licensee shall provide agreed upon updates to the Agency on the status of the investigation.

B. Within four (4) hours of its determination that a shipment of category 2 quantities of radioactive material is lost or missing, a shipping licensee shall notify the appropriate LLEA and the Agency. The Agency shall be notified by calling 602-255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at 602-223-2212. If, after 24 hours of its determination that the shipment is lost or missing, the radioactive material has not been located and secured, the licensee shall immediately notify the Agency.

C. The shipping licensee shall notify the designated LLEA along the shipment route as soon as possible upon discovery of any actual or attempted theft or diversion of a shipment or suspicious activities related to the theft or diversion of a shipment of a category 1 quantity of radioactive material. As soon as possible after notifying the LLEA, the licensee shall notify the Agency upon discovery of any actual or attempted theft or diversion of a shipment, or any suspicious activity related to the shipment of category 1 radioactive material. The Agency shall be notified by calling 602-255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at 602-223-2212

D. The shipping licensee shall notify the Agency as soon as possible upon discovery of any actual or attempted theft or diversion of a shipment, or any suspicious activity related to the shipment, of a category 2 quantity of radioactive material. The Agency shall be notified by calling 602-255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at 602-223-2212.

E. The shipping licensee shall notify the Agency and the LLEA as soon as possible upon recovery of any lost or missing category 1 quantities of radioactive material. The Agency shall be notified by calling 602-255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at 602-223-2212.

F. The shipping licensee shall notify the Agency as soon as possible upon recovery of any lost or missing category 2 quantities of radioactive material. The Agency shall be notified by calling 602-255-4845 during business hours, or by calling the after-hours emergency Department of Public Safety dispatch line, at 602-223-2212.

G. The initial telephonic notification required by paragraphs (A) through (D) of this section shall be followed within a period of 30 days by a written report submitted to the Agency by an appropriate method listed in R12-1-1907. A written report is not required for notifications on suspicious activities required by paragraphs (C) and (D) of this section. The report shall set forth the following information:

1. A description of the licensed material involved, including kind, quantity, and chemical and physical form;
2. A description of the circumstances under which the loss or theft occurred;
3. A statement of disposition, or probable disposition, of the licensed material involved;
4. Actions that have been taken, or will be taken, to recover the material; and
5. Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed material.

H. Subsequent to filing the written report, the licensee shall also report any additional substantive information on the loss or theft within 30 days after the licensee learns of such information.

R12-1-1982. Reserved

R12-1-1983. Reserved

R12-1-1984. Reserved

R12-1-1985. Reserved

R12-1-1986. Reserved

R12-1-1987. Reserved

R12-1-1988. Reserved

R12-1-1989. Reserved

R12-1-1990. Reserved

R12-1-1991. Reserved

R12-1-1992. Reserved

R12-1-1993. Reserved

R12-1-1994. Reserved

R12-1-1995. Reserved

R12-1-1996. Reserved

R12-1-1997. Reserved

R12-1-1998. Reserved

R12-1-1999. Reserved

R12-1-19100. Reserved

R12-1-19101. Form of Records

Each record required by this Article shall be legible throughout the retention period specified by each Agency rule. The record may be the original or a reproduced copy or a microform, provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period. The record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records such as letters, drawings, and specifications, shall include all pertinent information such as stamps, initials, and signatures. The licensee shall maintain adequate safeguards against tampering with and loss of records.

R12-1-19102. Reserved

R12-1-19103. Record Retention

Licensees shall maintain the records that are required by the rules in this Article for the period specified by the appropriate rule. If a retention period is not otherwise specified, these records shall be retained until the Agency terminates the facility's license. All records related to this Article may be destroyed upon Agency termination of the facility's license.

R12-1-19104. Reserved

R12-1-19105. Inspections

A. Each licensee shall afford to the Agency, at all reasonable times, opportunity to inspect category 1 or category 2 quantities of radioactive material and the premises and facilities wherein the nuclear material is used, produced, or stored.

B. Each licensee shall make available to the Agency for inspection, upon reasonable notice, records kept by the licensee pertaining to its receipt, possession, use, acquisition, import, export, or transfer of category 1 or category 2 quantities of radioactive material.

R12-1-19106. Reserved

R12-1-19107. Violations

A. The Agency may obtain an injunction or other court order to prevent a violation of the provisions of:

1. A.R.S. §30-685, as amended;

2. A.A.C. Title 12, Chapter 1; or

3. A rule or order issued by the Agency pursuant to Statute or the rules under A.A.C. Title 12, Chapter 1.

B. The Agency may obtain a court order for the payment of a civil penalty imposed under A.R.S. §30-687, as amended:

1. For violations of:

a. The rules in A.A.C. Title 12, Chapter 1, as amended;

b. Nonpayment of fees listed in A.A.C. Title 12, Chapter 1, Article 13;

c. Any rule, or order issued pursuant to the sections specified in paragraph (B)(1)(a) of this section;

d. Any term, condition, or limitation of any license issued under the sections specified in paragraph (B)(1)(a) of this section.

2. For any violation for which a license may be revoked.

R12-1-19108. Reserved

R12-1-19109. Criminal Penalties

Arizona Revised Statutes §30-673, as amended, provides for criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate, any rule issued under A.A.C. Title 12, Chapter 1. For purposes of this section, all of the rules in this Article are issued under A.R.S. § 30-673 or the rules of the Agency.

Appendix A

Table 1—Category 1 and Category 2 Threshold

The terabecquerel (TBq) values are the regulatory standard. The curie (Ci) values specified are obtained by converting from the TBq value. The curie values are provided for practical usefulness only.

Radioactive Material	Category 1 (TBq)	Category 1 (Ci)	Category 2 (TBq)	Category 2 (Ci)
Americium-241	60	1,620	0.6	16.2
Americium-241/Be	60	1,620	0.6	16.2
Californium-252	20	540	0.2	5.40
Cobalt-60	30	810	0.3	8.10
Curium-244	50	1,350	0.5	13.5
Cesium-137	100	2,700	1	27.0
Gadolinium-153	1,000	27,000	10	270
Iridium-192	80	2,160	0.8	21.6
Plutonium-238	60	1,620	0.6	16.2
Plutonium-239/Be	60	1,620	0.6	16.2
Promethium-147	40,000	1,080,000	400	10,800
Radium-226	40	1,080	0.4	10.8
Selenium-75	200	5,400	2	54.0
Strontium-90	1,000	27,000	10	270
Thulium-170	20,000	540,000	200	5,400
Ytterbium-169	300	8,100	3	81.0

Note: *Calculations Concerning Multiple Sources or Multiple Radionuclides*

The "sum of fractions" methodology for evaluating combinations of multiple sources or multiple radionuclides is to be used in determining whether a location meets or exceeds the threshold and is thus subject to the requirements of this part.

I. If multiple sources of the same radionuclide and/or multiple radionuclides are aggregated at a location, the sum of the ratios of the total activity of each of the radionuclides shall be determined to verify whether the activity at the location is less than the category 1 or category 2 thresholds of Table 1, as appropriate. If the calculated sum of the ratios, using the equation below, is greater than or equal to 1.0, then the applicable requirements of this part apply.

II. First determine the total activity for each radionuclide from Table 1. This is done by adding the activity of each individual source, material in any device, and any loose or bulk material that contains the radionuclide. Then use the equation below to calculate the sum of the ratios by inserting the total activity of the applicable radionuclides from Table 1 in the numerator of the equation and the corresponding threshold activity from Table 1 in the denominator of the equation.

Calculations shall be performed in metric values (i.e., TBq) and the numerator and denominator values shall be in the same units.

R1 = total activity for radionuclide 1

R2 = total activity for radionuclide 2

RN = total activity for radionuclide n

AR1 = activity threshold for radionuclide 1

AR2 = activity threshold for radionuclide 2

ARN = activity threshold for radionuclide n

$$\sum_{1}^{n}\left[\frac{R_1}{AR_1}+\frac{R_2}{AR_2}+\frac{R_n}{AR_n}\right]\geq 1.0$$

NITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 6, 2015

Mr. Aubrey Godwin, Director
Arizona Radiation Regulatory Agency
4814 South 40th Street
Phoenix, Arizona 85040

Dear Mr. Godwin:

We have reviewed the proposed revisions to the Arizona Radiological Health Rules published in the Arizona Administration Code, Title 12, Chapter 1, received by our office on September 18, 2015. These regulations were reviewed by comparison to the equivalent U.S. Nuclear Regulatory Commission (NRC) rules and the requirements of the eight amendments identified in the enclosed State Regulation Status (SRS) Data Sheet. We discussed our review of the regulations with Jerry Perkins on November 5, 2015.

As a result of our review, we have nine comments related to compatibility and one comment that is not related to compatibility but should be addressed. These have been identified in the enclosure. Please note that we have limited our review to regulations required for compatibility and/or health and safety. Under our current procedure, a finding that the Arizona regulations meet the compatibility and health and safety categories of the equivalent NRC regulation may only be made based on a review of the final Arizona regulations. However, we have determined that if your proposed regulations were adopted, incorporating our comments and without other significant change, they would meet the compatibility and health and safety categories established in the Office of Nuclear Material Safety and Safeguards (NMSS) Procedure SA-200, "Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements."

We request that when the proposed regulations are adopted and published as final regulations, a copy of the "as published" regulations be provided to us for review. As requested in NMSS Procedure SA-201, "Review of State Regulatory Requirements," please highlight the final changes, and provide a copy to Division of Material Safety, State, Tribal, and Rulemaking Programs, NMSS.

The SRS Data Sheet summarizes our knowledge of the status of other Arizona regulations, as indicated. Please let us know if you note any inaccuracies, or have any comments on the information contained in the SRS Data Sheet. This letter, including the SRS Data Sheet, is posted on the NMSS Web site: http://nrc-stp.ornl.gov/rulemaking.html.

If you have any questions regarding the review, the compatibility and health and safety categories, or any of the NRC regulations used in the review, please contact Michelle Beardsley, State Regulation Review Coordinator, at (610) 337-6942 (Michelle.Beardsley@nrc.gov) or Randy Erickson at (817) 200-1143 (Randy.Erickson@nrc.gov).

Sincerely,

/RA/
LDimmick for PHenderson

Pamela J. Henderson, Deputy Director
Division of Material Safety, State, Tribal,
and Rulemaking Programs
Office of Nuclear Material Safety
and Safeguards

Enclosures:
1. Compatibility & Non-Compatibility Comments
2. Arizona SRS Data Sheet

If you have any questions regarding the review, the compatibility and health and safety categories, or any of the NRC regulations used in the review, please contact Michelle Beardsley, State Regulation Review Coordinator, at (610) 337-6942 (Michelle.Beardsley@nrc.gov) or Randy Erickson at (817) 200-1143 (Randy.Erickson@nrc.gov).

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Pamela J. Henderson, Deputy Director
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Enclosures:
1. Compatibility & Non-Compatibility Comments
2. Arizona SRS Data Sheet

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B.Tharakan
Arizona File

OFFICE	RIV	ASPB	OGC	ASPB:BC	MSTR:DD
NAME	RErickson	MBeardsley	MSpencer/JOlmstead via email	LDimmick for CEinberg	LDimmick for PHenderson
DATE	10/02/15	100/6/15	11/05/15	11/06/15	11/06/15

ML 15280A122 **OFFICIAL RECORD COPY** **Package ML 15267A795**

COMPATIBILITY COMMENTS ON ARIZONA PROPOSED REGULATIONS

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	R12-1-418(E)	20.1501(b)	2011-1	H&S	**General** Arizona has omitted the additional new paragraph regarding the retention of documentation related to subsurface residual radioactivity surveys required for decommissioning. Arizona needs to adopt the essential health and safety objectives of the requirement for retention of documentation related to subsurface residual radioactivity surveys required for decommissioning in order to meet the Compatibility Category H&S designation assigned to 10 CFR 20.1501(b).
2	R12-1-323(F)	30.35(e) 40.36(d) 70.25(e)	2011-1	H&S	**Financial assurance and recordkeeping for decommissioning** Arizona has not met the essential health and safety objectives of the requirements related to financial assurance and recordkeeping for decommissioning. Arizona needs to adopt the essential health and safety objectives of financial assurance and recordkeeping for decommissioning in order to meet the Compatibility Category H&S designation assigned to 10 CFR 30.35(e), 40.36(d) and 70.25(e).

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
3	N/A	40.46(d) 70.36	2011-1	C	**Inalienability of licenses** Arizona has omitted the additional new paragraph regarding the transfer of licenses involving financial assurance for decommissioning information required by 10 CFR 40.36 and 70.36. Arizona needs to adopt the essential objectives of the requirement for the transfer of licenses involving financial assurance for decommissioning information in order to meet the Compatibility Category C designation assigned to 10 CFR 40.46(d) and 70.36.
4	N/A	36.13(a)	2011-2	H&S	**Specific licenses for irradiators** Arizona has omitted the general requirements related to the issuance of specific licenses for irradiators as required by 36.13(a). Arizona needs to adopt the essential health and safety objectives of the requirement related to the issuance of specific licenses for irradiators in order to meet the Compatibility Category H&S designation assigned to 10 CFR 36.13(a).

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
5	N/A	39.13	2011-2	H&S	**Specific licenses for well logging** Arizona has omitted the general requirements related to the issuance of specific licenses for well logging as required by 10 CFR 39.13. Arizona needs to adopt the essential health and safety objectives of the requirement related to the issuance of specific licenses for well logging in order to meet the Compatibility Category H&S designation assigned to 10 CFR 39.13.
6	R12-1-303(B)(2)(b) (B)(3) (B)(4)	30.19(b)	2012-4	B	**Self-luminous products containing tritium, krypton-85, or promethium-147** **Gas and aerosol detectors containing byproduct material** **Certain industrial devices** Arizona has omitted the wording, “and for a certificate of registration in accordance with 32.210 of this chapter” from the requirement as stated in 10 CFR 30.19(b), 30.20 and 30.22. Arizona needs to adopt the wording, “and for a certificate of registration in accordance with 32.210 of this chapter” in order to meet the Compatibility Category B designation assigned to 10 CFR 30.19(b), 30.20 and 30.22.

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
7	N/A	30.13	2013-1	B	**Definition: Carriers** Arizona has omitted the definition for "Carriers" as stated in 10 CFR 30.13. Arizona needs to adopt the definition for "Carriers" in order to meet the Compatibility Category B designation assigned to 10 CFR 30.13.
8	N/A	71.97	2013-1	B	**Advance notification of shipment of irradiated reactor fuel and nuclear waste** Arizona has omitted the additional new paragraph regarding the advance notification of shipment of irradiated reactor fuel and nuclear waste as required in 10 CFR 71.97. Arizona needs to add the new paragraph regarding the advance notification of shipment of irradiated reactor fuel and nuclear waste in order to meet the Compatibility Category B designation assigned to 10 CFR 71.97.
9	R12-1-Article 19, Appendix A	Part 37. Appendix A	2013-1	B	**Category 1 and Category 2 Radioactive Materials** Arizona omitted the following formula from their equivalent to Part 37, Appendix A: $\sum_{1}^{n}\left[\frac{R_1}{AR_1}+\frac{R_2}{AR_2}+\frac{R_n}{AR_n}\right] \geq 1.0$ Arizona needs to add the formula above to its equivalent to Part 37, Appendix A in order to meet the Compatibility Category B designation assigned to 10 CFR Part 37, Appendix A.

COMMENT NOT RELATED TO COMPATIBILITY

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	R12-1-1927(C) R12-1-1907	37.27(c) 37.7	2013-1	B D	**Requirements for criminal history records checks of individuals granted unescorted access to category 1 or category 2 quantities of radioactive material** Arizona needs to update its regulations in section R12-1-1927(C) to revise the Mail Stop to TWB-05 B32M, and the Division of Facilities and Security phone number to 630-829-9565, and update R-12-1907 to incorporate the revised organizational changes. ***See FSME-13-081 dated August 16, 2013, for notification to Agreement States of the change of address from that published in the regulations.***

STATE REGULATION STATUS

State: Arizona

Tracking Ticket Number: 15-74
Date: 11/06/2015

[8 amendment(s) reviewed identified by a * at the beginning of the equivalent NRC requirement.]

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1991-1	Safety Requirements for Radiographic Equipment Part 34 55 FR 843 (**Superceded by 1997-5)**	01/10/1994	Final ML042370896	No Comments 11/10/2004 ML043200721	Arizona has adopted final regulations equivalent to RATS ID 1997-5.
1991-2	ASNT Certification of Radiographers Part 34 56 FR 11504 (**Superceded by 1997-5)**	none	Final ML042370896	No Comments 11/10/2004 ML043200721	Arizona has adopted final regulations equivalent to RATS ID 1997-5.
1991-3	Standards for Protection Against Radiation Part 20 56 FR 23360; 56 FR 61352; 57 FR 38588; 57 FR 57877; 58 FR 67657; 59 FR 41641; 60 FR 20183	01/01/1994	Final	No Comments 09/22/1997	
1991-4	Notification of Incidents Parts 20, 30, 31, 34, 39, 40, 70 56 FR 64980	10/15/1994	Final ML042370896	No Comments 11/10/2004 ML043200721	
1992-1	Quality Management Program and Misadministrations Part 35 56 FR 34104 **(Superceded by 2002-2)**	01/27/1995	License Condition	No Comments 01/15/1999	Arizona has not yet adopted equivalent regulations to RATS ID 2002-2.
1992-2	Eliminating the Recordkeeping Requirements for Departures from Manufacturer's Instructions Parts 30, 35 57 FR 45566	none	Not required	Not required	These regulation changes are not required to be adopted for purposes of Compatibility.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
*1993-1	Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites] Parts 30, 40 58 FR 39628	10/25/1996	Proposed ML15267A799	No Comments 11/06/2015 ML15267A795	
1993-2	Licensing and Radiation Safety Requirements for Irradiators Part 36 58 FR 7715	07/01/1996	Not Applicable[1]	Not Applicable	Arizona does not have any licensees subject to these regulations (See SECY-95-112)
1993-3	Definition of Land Disposal and Waste Site QA Program Part 61 58 FR 33886	07/22/1996	Not Applicable[1]	Not Applicable	Arizona does not have any licensees subject to these regulations (See SECY-95-112)
1994-1	Self-Guarantee as an Additional Financial Mechanism Parts 30, 40, 70 58 FR 68726; 59 FR 1618	none	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility.
1994-2	Uranium Mill Tailings Regulations: Conforming NRC Requirements to EPA Standards Part 40 59 FR 28220	07/01/1997	Not Applicable	Not Applicable	Arizona does not have authority to regulate this material under its Agreement.
1994-3	Timeliness in Decommissioning Material Facilities Parts 30, 40, 70 59 FR 36026	08/15/1997	Final ML032750051	No Comments 11/20/2003 ML033240189	
1995-1	Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use Parts 30, 32, 35 59 FR 61767; 59 FR 65243; 60 FR 322	01/01/1998	Final ML092590750	No Comments 11/12/2009 ML092870448	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
*1995-2	Frequency of Medical Examinations for Use of Respiratory Protection Equipment Part 20 60 FR 7900	03/13/1998	Proposed ML15267A799	No Comments 11/06/2015 ML15267A795	
1995-3	Low-Level Waste Shipment Manifest Information and Reporting Parts 20, 61 60 FR 15649; 60 FR 25983	03/01/1998	Final ML092590750	No Comments 11/12/2009 ML092870448	
1995-4	Performance Requirements for Radiography Equipment Part 34 60 FR 28323 **(Superceded by 1997-5)**	06/30/1998	Final ML042370896	No Comments 11/10/2004 ML043200721	Arizona has adopted final regulations equivalent to RATS ID 1997-5.
1995-5	Radiation Protection Requirements: Amended Definitions and Criteria Parts 19, 20 60 FR 36038	08/14/1998	Final ML032750051	No Comments 11/20/2003 ML033240189	
1995-6	Clarification of Decommissioning Funding Requirements Parts 30, 40, 70 60 FR 38235	11/24/1998	Final ML032750051	No Comments 11/20/2003 ML033240189	
1995-7	Medical Administration of Radiation and Radioactive Materials Parts 20, 35 60 FR 48623 **(Superceded by 2002-2 and 2005-2)**	10/20/1998	Proposed	No Comments 10/5/2000	Arizona has not yet adopted equivalent regulations to RATS IDs 2002-2 and 2005-2.
1996-1	Compatibility with the International Atomic Energy Agency Part 71 60 FR 50248; 61 FR 28724 **(Superceded by 2004-1)**	04/01/1999	Final ML042370896	Comments 11/10/04 ML043200721	Arizona has adopted final regulations equivalent to RATS ID 2004-1.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1996-2	One Time Extension of Certain Byproduct, Source and Special Nuclear Materials Licenses Parts 30, 40, 70 61 FR 1109	02/15/1999	Not required	Not required	These regulation changes are not required to be adopted for purposes of Compatibility.
1996-3	Termination or Transfer of Licensed Activities: Record keeping Requirements Parts 20, 30, 40, 61, 70 61 FR 24669	06/17/1999	Final ML032750051	No Comments 11/20/2003 ML033240189	
1997-1	Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act Part 20 61 FR 65120	01/9/2000	Final ML032750051	No Comments 11/20/2003 ML033240189	
1997-2	Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State Part 150 62 FR 1662	02/27/2000	Final ML042370896	No Comments 11/10/2004 ML043200721	
1997-3	Criteria for the Release of Individuals Administered Radioactive Material Parts 20, 35 62 FR 4120	05/29/2000	Final ML092590750	No Comments 11/12/2009 ML092870448	
1997-4	Fissile Material Shipments and Exemptions Part 71 62 FR 5907 **(Superceded by 2004-1)**	02/10/2000	Not required	Not required	These regulation changes are not required to be adopted for purposes of Compatibility. (See STP-97-078)
1997-5	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations Parts 30, 34, 71, 150 62 FR 28947	06/27/2000	Final ML042180385	No Comments 11/10/2004 ML043200721	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1997-6	Radiological Criteria for License Termination Parts 20, 30, 40, 70 62 FR 39057	08/20/2000	Final ML032930364	No Comments 11/06/2003 ML033160544	
1997-7	Exempt Distribution of a Radioactive Drug Containing One Micro curie of Carbon-14 Urea Part 30 62 FR 63634	01/02/2001	Final ML032930364	No Comments 11/06/2003 ML033160544	
1998-1	Deliberate Misconduct by Unlicensed Persons Parts 30, 40, 61, 70, 71, 150 63 FR 1890; 63 FR 13773	02/12/2001	Final ML042370896	No Comments 11/10/2004 ML043200721	
1998-2	Self-Guarantee of Decommissioning Funding by Nonprofit and Non-Bond-Issuing Licensees Parts 30, 40, 70 63 FR 29535	07/01/2001	Not required	Not required	These regulations are not required to be adopted for purposes of Compatibility.
1998-3	License Term for Medical Use Licenses Part 35 63 FR 31604 **(Superceded by 2002-2)**	07/10/2001	Not required	Not required	These regulations are not required to be adopted for purposes of Compatibility. (See STP-98-074)
1998-4	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations Part 34 63 FR 37059	07/09/2001	Final ML042370896	No Comments 11/10/2004 ML043200721	
1998-5	Minor Corrections, Clarifying Changes, and a Minor Policy Change Parts 20, 32, 35, 36, 39 63 FR 39477; 63 FR 45393	10/26/2001	Final ML032750051	No Comments 11/20/2003 ML033240189	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1998-6	Transfer for Disposal and Manifests: Minor Technical Conforming Amendment Part 20 63 FR 50127	11/20/2001	Final ML032750051	No Comments 11/20/2003 ML033240189	
1999-1	Radiological Criteria for License Termination of Uranium Recovery Facilities Part 40 64 FR 17506	06/11/2002	Not Required	Not Required	These regulations are not required to be adopted for purposes of Compatibility.
1999-2	Requirements for Those Who Possess Certain Industrial Devices Containing Byproduct Material to Provide Requested Information Part 31 64 FR 42269	10/04/2002	Not Required	Not Required	These regulations are not required to be adopted for purposes of Compatibility.
1999-3	Respiratory Protection and Controls to Restrict Internal Exposure Part 20 64 FR 54543; 64 FR 55524	02/02/2003	Final ML032930364	No Comments 11/06/2003 ML033160544	
2000-1	Energy Compensation Sources for Well Logging and Other Regulatory Clarifications Part 39 65 FR 20337	05/17/2003	Final ML032930364	No Comments 11/06/2003 ML033160544	
2000-2	New Dosimetry Technology Parts 34, 36, 39 65 FR 63750	01/08/2004	Final ML042370896	No Comments 11/1/2004 ML043200721	
2001-1	Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material Parts 30, 31, 32 65 FR 79162	02/16/2004	Final ML13101A341	No Comments 04/29/2013 ML13102A005	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2002-1	Revision of the Skin Dose Limit Part 20 67 FR 16298	04/05/2005	Final ML092590750	No Comments 11/12/2009 ML092870448	
2002-2	Medical Use of Byproduct Material Parts 20, 32, 35 67 FR 20249	10/24/2005	Final ML13101A341	Comments 04/29/2013 ML13102A005	
2003-1	Financial Assurance for Materials Licensees Parts 30, 40, 70 68 FR 57327	12/03/2006	Final ML092590750	No Comments 11/12/2009 ML092870448	
2004-1	Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety Amendments Part 71 69 FR 3697	10/01/2007	Final ML13101A341	Comments 04/29/2013 ML13102A005	
2005-1	Security Requirements for Portable Gauges Containing Byproduct Material Part 30 70 FR 2001	07/11/2008	Final ML092590750	No Comments 11/12/2009 ML092870448	
2005-2	Medical Use of Byproduct Material - Recognition of Specialty Boards Part 35 70 FR 16336; 71 FR 1926	04/29/2008	Final ML14232A635	Comments 10/17/2014 ML 14232A317	
2005-3	Increased Controls for Risk-Significant Radioactive Sources (NRC Order EA-05-090) 70 FR 72128	12/01/2005	License Condition ML052630048	No Comments 09/21/2005 ML052640467	
2006-1	Minor Amendments Parts 20, 30, 32, 35, 40 and 70 71 FR 15005	03/27/2009	Final ML14232A635	Comments 10/17/2014 ML 14232A317	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2006-2	National Source Tracking System - Serialization Requirements Part 32 with reference to Part 20 Appendix E 71 FR 65685	02/06/2007	Final ML092590750	No Comments 11/12/2009 ML092870448	
2006-3	National Source Tracking System Part 20 71 FR 65685, 72 FR 59162	01/31/2009	Final ML092590750	No Comments 11/12/2009 ML092870448	
2007-1	Medical Use of Byproduct Material - Minor Corrections and Clarifications Parts 32 and 35 72 FR 45147, 54207	10/29/2010	Final ML14232A635	Comments 10/17/2014 ML 14232A317	
2007-2	Exemptions From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements Parts 30, 31, 32, 150 72 FR 58473	12/17/2010	Final ML13101A341	No Comments 04/29/2013 ML13102A005	
2007-3	Requirements for Expanded Definition of Byproduct Material Parts 20, 30, 31, 32, 33, 35, 61, 150 72 FR 55864	11/30/2010	Final ML14232A635	No Comments 10/17/2014 ML 14232A317	
2007-4	Order Imposing Fingerprinting Requirements and Criminal History Records Check Requirements for Unescorted Access to Certain Radioactive Material NRC Order EA-07-305 72 FR 70901	06/05/2008	License Condition ML081330218	No Comments 05/28/2008 ML081490633	
2008-1	Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent Parts 19, 20 72 FR 68043	02/15/2011	Final ML14232A635	No Comments 10/17/2014 ML 14232A317	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2009-1	Medical Use of Byproduct Material – Authorized User Clarification Part 35 74 FR 33901	09/28/2012	Final ML14232A635	Comments 10/17/2014 ML 14232A317	
*2011-1	Decommissioning Planning Parts 20, 30, 40, 70 76 FR 35512	12/17/2015	Proposed ML15267A799	Comments 11/06/2015 ML15267A795	
*2011-2	Licenses, Certifications, and Approvals for Materials Licensees Parts 30, 36, 39, 40, 70, and 150 76 FR 56951	11/14/2014	Proposed ML15267A799	Comments 11/06/2015 ML15267A795	
2012-1	Change of Compatibility of 10 CFR 31.5 and 31.6 (See RATS ID: 2001-1 for Rule text) 77 FR 3640	01/25/2015	Final ML13101A341	No Comments 04/29/2013 ML13102A005	
*2012-2	Advance Notification to Native American Tribes of Transportation of Certain Types of Nuclear Waste Part 71 77 FR 34194	08/10/2015	Proposed ML15267A799	No Comments 11/06/2015 ML15267A795	
*2012-3	Technical Corrections Part 30, 34, 40 and 71 77 FR 39899	08/06/2015	Proposed ML15267A799	No Comments 11/06/2015 ML15267A795	
*2012-4	Requirements for Distribution of Byproduct Material Parts 30, 31, 32, 40 and 70 77 FR 43666	10/23/2015	Proposed ML15267A799	Comments 11/06/2015 ML15267A795	
*2013-1	Physical Protection of Byproduct Material, 10 CFR Parts 20, 30, 32, 33, 34, 35, 36, 37, 39, and 71 78 FR 16922	03/19/2016	Proposed ML15267A799	Comments 11/06/2015 ML15267A795	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2013-2	Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions, 10 CFR Parts 30, 40, and 70 78 FR 32310	08/27/2016			
2015-1	Domestic Licensing of Special Nuclear Material – Written Reports and Clarifying Amendments Part 70 79 FR 57721, 80 FR 143	01/26/2018			
2015-2	Safeguards Information - Modified Handling Categorization, Change for Materials Facilities Parts 30, 37, 73, and 150 79 FR 58664, 80 FR 3865	01/28/2018			
2015-3	Revisions to Transportation Safety Requirements and Harmonization with International Atomic Energy Agency Transportation Requirements Part 71 80 FR 33987	07/13/2018			
2015-4	Miscellaneous Corrections, Parts 37 and 40 80 FR 45841	09/02/2018			

[1] IMPEP Team: verify that Arizona does not have any licensees subject to these regulations during each review.

ECONOMIC, SMALL BUSINESS AND CONSUMER IMPACT STATEMENT

Title 12, Chapter 1, Articles 1, 3, 4, 7, 13, 15, 18 and 19

1. Identification of the rulemaking: RMP-0078

   a. The conduct and its frequency of occurrence that the rule is designed to change:

      This rulemaking package amends several rules to create security requirements mandated by the Agreement State document that Arizona entered into with the U.S. Nuclear Regulatory Commission (formerly the Atomic Energy Commission) authorized by A.R.S. §30-656 authorizing the governor of Arizona to enter into the agreement. In accordance with Public Law 83-703, Title 1- Atomic Energy, Chapter 19, Section 274, as well as Article VI of the Agreement signed the 30th day of March 1967 by Jack Williams, Governor of Arizona [F.R. Doc. 67-4212; Filed, Apr. 17, 1967 8:48 a.m.], Agreement States delegated authority to regulate nuclear material will substantially adopt the rules and language used by the U.S. NRC in order to be compatible nationally to standards of protection. In addition, A.R.S. §30-654(B)(6) requires the Agency to be as nearly as possible in conformity with the regulations of the NRC.

   b. The harm resulting from the conduct the rule is designed to change and the likelihood it will continue to occur if the rule is not changed:

      The rules provide the minimum level of protection necessary to operate, and keep the public safe and prevent unnecessary exposure to radiation. Failure to amend the rules might lead to unsafe practices continuing and a potential loss of the Agreement Sate status currently enjoyed by Arizona. Loss of this status will return jurisdiction and regulatory authority to the U.S. Nuclear Regulatory Commission, raise the costs of conducting business in Arizona from approximately 2 million per year in regulatory fees to approximately 5 million per year in federal equivalent fees, and remove onsite regulatory response for incidents and possible emergencies currently investigated and

resolved by local Arizona agency staff that would need to be covered by individuals out of Region IV out of Texas in the event that Arizona loses its Agreement State status.

c. The estimated change in frequency of the targeted conduct expected from the rule change:

It is not known how many entities are voluntarily maintaining bonds for financial assurance to remedy nuclear clean-up of facilities when abandoned or fingerprinting and otherwise vetting contractors using nuclear material voluntarily.

However, adoption and amendment of the rules is required in order to remain compliant with and maintain the Agreement State status signed by the Governor of Arizona and the United States Atomic Energy Commission in March of 1967.

2. A brief summary of the information included in the economic, small business, and consumer impact statement:

No new FTE's were needed for this rulemaking package so additional notice was not sent to Joint Legislative Budget Committee (JLBC).

The proposed rules and amendments are written in an effort to protect the health and safety of the Arizona pubic in order to meet the obligations of A.R.S. § 30-654.

Unless context otherwise implies, for the purposes of this report, the following definitions apply:

"Minimal" means a possible cost increase of less than $1000.00

"Moderate" means a possible cost of $1000.00 to $10,000.00

"Substantial" means a possible cost greater than $10,000.00

Currently there are approximately 365 licenses, 8,500 certified technologists, 200 industrial radiographers, and 250 physicists in Arizona that use the rules in these articles. In addition, there are hundreds of thousands of users not covered above, such as other medical professionals and practitioners in dental, chiropractic, podiatry, veterinary,

mammography, medical, and hospital facilities; industrial and legal facilities; and patients along with the general public in Arizona along with interested parties from other states and federal agencies.

3. The person to contact to submit or request additional data on the information included in the economic, small business, and consumer impact statement:

   a. Name: Jerry W. Perkins

   b. Address: Arizona Radiation Regulatory Agency
   4814 South 40th Street
   Phoenix, Arizona 85040

   c. Telephone number: (602) 255-4833

   d. Fax number: (602) 437-0705

   e. E-mail address: jperkins@azrra.gov

4. Persons who will be directly affected by, bear the costs of, or directly benefit from the rulemaking:

   This rulemaking package amends several rules and adds rules found in Article 19 specific to security requirements of source material to ensure that Arizona meets the obligations set forth by the Agreement State document signed by the Governor of Arizona on March 30th, 1967. The changes meet the Health and Safety or Compatibility Category A, B, and C designation assigned to changes required to state regulations that address portions of Title 10 of the Code of Federal Regulations. These rules affect all persons authorized to possess, use, or transport radioactive material in Arizona.

5. Cost-benefit analysis:

   a. Costs and benefits to state agencies directly affected by the rulemaking:

      Other agencies, including the Radiation Regulatory Agency and any other State Agency with a radioactive materials license, should not be affected as any license that was issued was already subject to any new conditions and the definitions as

required in the regulation of radioactive material. State agencies that allow state employees to possess, use, or transport nuclear material should have already vetted employees and any increase in costs will be related to fingerprinting individuals every ten years and retention of the security clearance documents. These costs are believed to be minimal per individual and care should be conducted in state agencies to limit the number of individuals that may use, posses, or transport quantities that would require this security clearance. Financial assurance by state agencies is documented by a legislative promissory letter so unless the state were to abandon a radioactive facility without mitigating the radiation, there should be no economic impact.

The number of new full-time employees at the implementing agency required to implement and enforce the proposed rule:

None

b. Costs and benefits to political subdivisions directly affected by the rulemaking:

Political subdivisions should not be affected unless they employ individuals subject to a license issued by this Agency. In such a case the political subdivision was already subject to any new conditions and the definitions proposed. The Agency is not aware of any political subdivision that is authorized to use, posses, or transport quantities that would require this security clearance as licenses are written based upon facility use that requires specialized training of operators.

c. Costs and benefits to businesses directly affected by the rulemaking:

There is little or minimal economic impact from any of the proposed rules in this rulemaking. Businesses that allow employees to possess, use, or transport nuclear material should have already vetted employees and any increase in costs

will be related to fingerprinting individuals every ten years and retention of the security clearance documents. These costs are believed to be minimal per individual and care should be conducted in businesses to limit the number of individuals that may use, posses, or transport quantities that would require this security clearance.

Financial assurances by a business that may possess quantities that may potentially contaminate a facility were already required in the rules and as a condition of the license. The amendment to these rules clarifies and updates the language used in the code of federal regulations and adoption is required in order to maintain the Agreement State status enjoyed by Arizona as previously stated.

6. Impact on private and public employment:

The rules and amendments in this package will have little or no impact on employment except for those positions that may require the additional security clearance. These individuals will be required to pass a FBI fingerprinting requirement in order to possess, use, or transport nuclear material of certain quantities and types as listed in Article 19 of the rules.

7. Impact on small businesses:

a. Identification of the small business subject to the rulemaking:

Industrial, pharmaceutical, dental, podiatry, veterinary, chiropractic, medical, and hospital facilities that use or possess radioactive material are subject to the rules and listed within these articles. These individuals will be required to pass a FBI fingerprinting requirement in order to possess, use, or transport nuclear material of certain quantities and types as listed in Article 19 of the rules.

b. Administrative and other costs required for compliance with the rulemaking:

In general the rule amendments are proposed in an effort to adopt the current use requirements of the U.S. Nuclear Regulatory Commission as a portion of the radiation control program for Arizona in accordance with our Agreement State status. This package has no fee increase requirement that would markedly change the way businesses operate with radiation safety concerns in mind except for those positions that may require the additional security clearance. These individuals will be required to pass a FBI fingerprinting requirement in order to possess, use, or transport nuclear material of certain quantities and types as listed in Article 19 of the rules.

c. Description of methods that may be used to reduce the impact on small businesses:

i. Establish less costly or less stringent compliance or reporting requirements:

The Agency has not developed methods to reduce the impact on small businesses because there is minimal impact. This is the minimum protective level to operate and keep the public safe and prevent unnecessary exposure to radiation.

ii. Establish less costly schedules or less stringent deadlines for compliance:

This is the minimum protective level to operate and keep the public safe and prevent unnecessary exposure to radiation.

iii. Consolidate or simplify compliance or reporting requirements:

This is the minimum protective level to operate and keep the public safe and prevent unnecessary exposure to radiation.

iv. Establish separate performance standards:

This is the minimum protective level to operate and keep the public safe and prevent unnecessary exposure to radiation.

v. Exempt small businesses from any or all requirements:

This is the minimum protective level to operate and keep the public safe and prevent unnecessary exposure to radiation.

8. Cost and benefit to private persons and consumers who are directly affected by the rulemaking:

There is minimal cost to the public from these rule amendments. The benefit to the public is that unnecessary radiation exposure from high activity or lager quantity sources are reduced or monitored. These rules also protect the public from the possession of high activity or large source material by individuals that may not pass minimal security requirements including a background check and fingerprinting.

9. Probable effects on state revenues:

There is no anticipated impact to State Revenues or job creation from this rulemaking package.

10. Less intrusive or less costly alternative methods considered:

a. Monetizing of the costs and benefits for each option:

A less intrusive or less costly method has not been investigated, because of the minimal effect the rule will have on the affected licensees and the general compatibility agreement stipulations in the document signed the 30th day of March 1967 by Jack Williams, Governor of Arizona [F.R. Doc. 67-4212; Filed, Apr. 17, 1967 8:48 a.m.].

b. Rationale for not using non-selected alternatives:

A less intrusive or less costly method has not been investigated, because of the minimal effect the rule will have on the affected licensees and the general compatibility agreement stipulations in the document signed the 30th day of March

1967 by Jack Williams, Governor of Arizona [F.R. Doc. 67-4212; Filed, Apr. 17, 1967 8:48 a.m.].

Radiation Regulatory Agency
TITLE 12. NATURAL RESOURCES

CHAPTER 1. RADIATION REGULATORY AGENCY

Authority: A.R.S. § 30-651 et seq.

ARTICLE 1. GENERAL PROVISIONS

ARTICLE 1. GENERAL PROVISIONS

R12-1-101. Scope and Incorporated Materials

A. Except as otherwise specifically provided, this Chapter applies to all persons who receive, possess, use, transfer, own, or acquire any source of radiation.

B. This Chapter does not apply to any person that is subject to regulation by the Nuclear Regulatory Commission.

C. State control of source material, byproduct material, and special nuclear material in quantities not sufficient to form a critical mass is subject to the provisions of the agreement between the state and the U.S. Nuclear Regulatory Commission, signed March 30, 1967 and incorporated by reference. This incorporated material contains no later editions or amendments, and together with all other incorporated materials in this Chapter, is available for inspection or copying at the Arizona Radiation Regulatory Agency, 4814 S. 40th St., Phoenix, AZ 85040.

D. Federal regulations incorporated by reference in this Chapter are available from the U.S. Government Printing Office, P.O. Box 979050, St. Louis, MO 63197-9000 and http://www.gpoaccess.gov/cfr/.

Historical Note

Former Rule Section A.1; Former Section R12-1-101 repealed, new Section R12-1-101 adopted effective June 30, 1977 (Supp. 77-3). Amended effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-102. Definitions

Terms defined in A.R.S. § 30-651 have the same meanings when used in this Chapter, unless the context otherwise requires. Additional subject-specific definitions are used in other Articles.

"A1" means the maximum activity of special form radioactive material permitted in a type A package. These values are either listed in 10 CFR 71, Appendix A, Table A-1, or may be derived in accordance with the procedures prescribed in 10 CFR 71, Appendix A, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"A2" means the maximum activity of radioactive material, other than special form radioactive material, low specific activity (LSA) material, and surface contaminated object (SCO) material, permitted in a Type A package. These values are either listed in 10 CFR 71, Appendix A, Table A-1, or may be derived in accordance with the procedure prescribed in 10 CFR 71, Appendix A, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"Absorbed dose" means the energy imparted by ionizing radiation per unit mass of irradiated material. The units of absorbed dose are the gray (Gy) and the rad.

"Accelerator" means any machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of 1 MeV. For purposes of this definition, "particle accelerator" is an equivalent term.

"Accelerator produced material" means any material made radioactive by irradiating it in a particle accelerator.

"Act" means A.R.S. Title 30, Chapter 4.

"Activity" means the rate of disintegration, transformation, or decay of radioactive material. The units of activity are the becquerel (Bq) and the curie (Ci).

"Adult" means an individual 18 or more years of age.

"Agency," or "ARRA" means the Arizona Radiation Regulatory Agency.

"Agreement State" means any state with which the United States Nuclear Regulatory Commission has entered into an effective agreement under Section 274(b) of the Atomic Energy Act of 1954, as amended (73 Stat. 689). "Nonagreement State" means any other state.

"Airborne radioactive material" means any radioactive material dispersed in the air in the form of aerosols, dusts, fumes, mists, vapors, or gases.

"Airborne radioactivity area" means a room, enclosure, or area in which airborne radioactive materials, composed wholly or partly of licensed radioactive material, exist in concentrations:

In excess of the derived air concentrations (DACs) specified in Appendix B, Table I of Article 4 of these rules; or

That an individual present in the area without respiratory protective equipment could exceed, during the hours an individual is present in a week, an intake of 0.6 percent of the annual limit on intake (ALI) or 12 DAC-hours.

"ALARA" means as low as is reasonably achievable, making every reasonable effort to maintain exposures to radiation as far below the dose limits in these rules as is practical, consistent with the purpose for which the licensed or registered activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed or registered sources of radiation in the public interest.

"Analytical x-ray equipment" means equipment used for x-ray diffraction or x-ray-induced fluorescence analysis.

"Analytical x-ray system" means a group of components utilizing x-rays to determine the elemental composition or to examine the microstructure of materials.

"Annual" means done or performed yearly. For purposes of Chapter 1 any required activity done or performed within plus or minus two weeks of the annual due date is considered done or performed in a timely manner.

"Authorized medical physicist" means an individual who meets the requirements in R12-1-711; or is identified as an authorized medical physicist or teletherapy physicist on:

A specific medical use license issued by the Agency, NRC, or another Agreement State;

A medical use permit issued by a NRC master material licensee;

A permit issued by an Agency, NRC, or another Agreement State broad scope medical use licensee; or

A permit issued by a NRC master material license broad scope medical use permittee.

"Authorized nuclear pharmacist" means a pharmacist who meets the requirements in R12-1-712; or is identified as an authorized nuclear pharmacist on:

A specific license issued by an Agency, NRC, or another Agreement State that authorizes medical use or the practice of nuclear pharmacy;

A permit issued by a NRC master material licensee that authorizes medical use or the practice of nuclear pharmacy;

A permit issued by an Agency, NRC, or another Agreement State broad scope medical use licensee that authorizes medical use or the practice of nuclear pharmacy; or

A permit issued by a NRC master material license broad scope medical use permittee that authorizes medical use or the practice of nuclear pharmacy; or

Is identified as an authorized nuclear pharmacist by a commercial nuclear pharmacy that has been authorized to identify authorized nuclear pharmacists; or

Is designated as an authorized nuclear pharmacist in accordance with R12-1-311(G).

"Authorized user" means a physician, dentist, or podiatrist who meets the requirements in R12-1-719, R12-1-723, R12-1-727, R12-1-728, or R12-1-744; or is identified as an authorized user on:

An Agency, NRC, or another Agreement State license that authorizes the medical use of radioactive material;

A permit issued by a NRC master material licensee that is authorized to permit the medical use of radioactive material;

A permit issued by an Agency, NRC, or another Agreement State specific licensee of broad scope that is authorized to permit the medical use of radioactive material; or

A permit issued by a NRC master material license broad scope permittee that is authorized to permit the medical use of radioactive material.

"Background radiation" means radiation from cosmic sources; not technologically enhanced naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material); and global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents, such as Chernobyl, that contribute to background radiation and are not under the control of a licensee. "Background radiation" does not include sources of radiation regulated by the Agency.

"Becquerel" (Bq) means the International System (SI) unit for activity and is equal to 1 disintegration per second (dps or tps).

"Bioassay" means the determination of kinds, quantities, or concentrations, and in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of these rules, "radiobioassay" is an equivalent term.

"Brachytherapy" means a method of radiation therapy in which an encapsulated source or group of sources is utilized to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary or interstitial application.

"Byproduct material" means:

Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material;

The tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "byproduct material" within this definition;

Any discrete source of radium-226 that is produced, extracted, or converted after extraction, for use for a commercial, medical, or research activity; or any material that, has been made radioactive by use of a particle accelerator; and is produced, extracted, or converted after extraction, for use for a commercial, medical, or research activity; and

Any discrete source of naturally occurring radioactive material, other than source material, that the NRC, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Secretary of Homeland Security, and the head of any other appropriate federal agency, determines would pose a threat similar to the threat posed by a discrete source of radium-226 to the public health and safety or the common defense and security and; before, on, or after August 8, 2005, is extracted or converted after extraction for use in a commercial, medical, or research activity.

"Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of each year shall begin in January and subsequent calendar quarters shall be so arranged such that no day is included in more than one calendar quarter and no day in any one year is omitted from inclusion within a calendar quarter. A licensee or registrant shall not change the method of determining calendar quarters for purposes of this Chapter except at the beginning of a calendar year.

"Calibration" means the determination of:

The response or reading of an instrument relative to a series of known radiation values over the range of the instrument, or

The strength of a source of radiation relative to a standard.

"Certifiable cabinet x-ray system" means an existing uncertified x-ray system that meets or has been modified to meet the certification requirements specified in 21 CFR 1020.40, revised April 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"Certificate holder" means a person who has been issued a certificate of compliance or other package approval by the Agency or NRC.

"Certificate of Compliance" (CoC) means the certificate issued by the NRC under 10 CFR 71, Subpart D, (Revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.), which authorizes the design of a package for the transportation of radioactive material.

"Certified cabinet x-ray system" means an x-ray system that has been certified in accordance with 21 CFR 1010.2, as being manufactured and assembled on or after April 10, 1975, in accordance with the provisions of 21 CFR 1020.40, both sections revised April 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"CFR" means Code of Federal Regulations.

"Chelating agent" means amine polycarboxylic acids, hydroxycarboxylic acids, gluconic acid, and polycarboxylic acids.

"Civil penalty" means the monetary fine which may be imposed on licensees by the Agency, pursuant to A.R.S. § 30-687, for violations of the Act, this Chapter, or license conditions.

"Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.

"Committed dose equivalent" (HT,50) means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

"Committed effective dose equivalent" (HE,50) is the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to each of these organs or tissues (HE,50 = S wT,HT,50).

"Consortium" means an association of medical use licensees and a PET radionuclide production facility in the same geographical area that jointly own or share in the operation and maintenance cost of the PET radionuclide production facility that produces PET radionuclides for use in producing radioactive drugs within the consortium for noncommercial distributions among its associated members for medical use. The PET radionuclide production facility within the consortium must be located at an educational institution or a federal facility or a medical facility.

"Curie" means a unit of quantity of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of 3.7E + 1010 transformations per second (tps).

"Current license or registration" means a license or registration issued by the Agency and for which the licensee has paid the license or registration fee for the current year according to R12-1-1304.

"Deep-dose equivalent" (Hd), which applies to external whole body exposure, is the dose equivalent at a tissue depth of 1 centimeter (1000 mg/cm2).

"Depleted uranium" means the source material uranium in which the isotope uranium-235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.

"Discrete source" means a radionuclide that has been processed so that its concentration within a material has been purposely increased for use for commercial, medical, or research activities.

"Dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, committed effective dose equivalent, total organ dose equivalent, or total effective dose equivalent. For purposes of these rules, "radiation dose" is an equivalent term.

"Dose equivalent" (HT) means the product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.

"Dose limits" means the permissible upper bound of radiation doses established in accordance with these rules. For purposes of these rules, "limits" is an equivalent term.

"Dosimeter" (See "Individual monitoring device")

"Effective dose equivalent" (HE) means the sum of the products of the dose equivalent to each organ or tissue (HT) and the weighting factor (wT) applicable to each of the body organs or tissues that are irradiated (HE = S wTHT).

"Effluent release" means any disposal or release of radioactive material into the ambient atmosphere, soil, or any surface or subsurface body of water.

"Embryo/fetus" means the developing human organism from conception until the time of birth.

"Enclosed beam x-ray system" means an analytical x-ray system constructed in such a way that access to the interior of the enclosure housing the x-ray source during operation is precluded except through bypassing of interlocks or other safety devices to perform maintenance or servicing.

"Enclosed radiography" means industrial radiography conducted by using cabinet radiography or shielded room radiography.

"Cabinet radiography" means industrial radiography conducted by using an x-ray machine in an enclosure not designed for human admittance and which is so shielded that every location on the exterior meets the conditions for an "unrestricted area."

"Shielded room radiography" means industrial radiography conducted using an x-ray machine in an enclosure designed for human admittance and which is so shielded that every location of the exterior meets the conditions for an "unrestricted area."

"Entrance or access point" means any opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed radioactive materials. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.

"Exhibit" for purposes of these rules, is equivalent in meaning to the word "Schedule" as found in previously issued rules, current license conditions, and regulation guide.

"Explosive material" means any chemical compound, mixture, or device which produces a substantial instantaneous release of gas and heat spontaneously or by contact with sparks or flame.

"Exposure" means:

Being subjected to ionizing radiation or radioactive materials.

The quotient of dQ by dm where "dQ" is the absolute value of the total charge of the ions of one sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass "dm" are completely stopped in air. The special unit of exposure is the roentgen (R).

"Exposure rate" means the exposure per unit of time.

"External dose" means that portion of the dose equivalent received from any source of radiation outside the body.

"Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.

"Fail-safe characteristics" means a design feature which causes beam port shutters to close, or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

"FDA" means the United States Food and Drug Administration

.

"Field radiography" means industrial radiography, utilizing a portable or mobile x-ray system, which is not conducted in a shielded enclosure.

"Field station" means a facility where radioactive sources may be stored or used and from which equipment is dispatched to temporary job sites.

"Former U.S. Atomic Energy Commission (AEC) or U.S. Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.

"Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency (EPA), 40 CFR 190 and 191, revised July 1, 2013, incorporated by reference, and available under R12-1-101, under the authority of the Atomic Energy Act of 1954, as amended, that impose limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material. This incorporated material contains no future editions or amendments.

"Gray" (Gy) means the International System (SI) unit of absorbed dose and is equal to 1 joule per kilogram. One gray equals 100 rad.

"Hazardous waste" means those wastes designated as hazardous in A.R.S. § 49-921(5).

"Healing arts" means the practice of medicine, dentistry, osteopathy, podiatry, chiropractic, and veterinary medicine.

"Health care institution" means every place, institution, or building which provides facilities for medical services or other health-related services, not including private clinics or offices which do not provide overnight patient care.

"High radiation area" means an area, accessible to individuals, in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 1 mSv (0.1 rem) in one hour at 30 centimeters from the radiation source or 30 centimeters from any surface that the radiation penetrates.

"Human use" means the internal or external administration of radiation or radioactive materials to human beings.

"Impound" means to abate a radiological hazard. Actions which may be taken by the Agency in impounding a source of radiation include seizing the source of radiation, controlling access to an area, and preventing a radiation machine from being utilized.

"Individual" means any human being.

"Individual monitoring" means the assessment of:

Dose equivalent

By the use of individual monitoring devices, or

By the use of survey data, or

Committed effective dose equivalent

By bioassay; or

By determination of the time-weighted air concentrations to which an individual has been exposed, that is, DAC-hours. (See the definition of DAC-hours in Article 4).

"Individual monitoring device" means a device designed to be worn by a single individual for the assessment of dose equivalent. For purposes of this Chapter, "dosimeter" and "personnel dosimeter," are equivalent terms. Examples of individual monitoring devices are film badges, thermoluminescence dosimeters (TLDs), pocket ionization chambers, optical stimulation devices, and personal ("lapel") air sampling devices.

"Individual monitoring equipment" means one or more individual monitoring devices. For purposes of this Chapter, "personnel monitoring equipment" is an equivalent term.

"Industrial radiography" means the examination of the macroscopic structure of materials by non-destructive methods utilizing sources of ionizing radiation.

"Injection tool" means a device used for controlled subsurface injection of radioactive tracer material.

"Inspection" means an examination or observation by a representative of the Agency, including but not limited to tests, surveys, and monitoring to determine compliance with rules, orders, requirements and conditions of the License or certificate of registration.

"Interlock" means a device arranged or connected such that the occurrence of an event or condition is required before a second event or condition can occur or continue to occur.

"Internal dose" means that portion of the dose equivalent received from radioactive material taken into the body.

"Irradiate" means to expose to radiation.

"Laser" (light amplification by the stimulated emission of radiation) means any device which can produce or amplify electromagnetic radiation with wave lengths in the range of 180 nanometers to 1 millimeter primarily by the process of controlled stimulated emission.

"Lens dose equivalent" (LDE) means the external exposure of the lens of the eye and is taken as the dose equivalent at a tissue depth of 0.3 centimeters (300 mg/cm2).

"License" means the grant of authority, issued pursuant to Articles 3 and 14 of this Chapter and A.R.S. §§ 30-671, 30-672, and 30-721 et seq., to acquire, possess, transfer, and use sources of radiation. The types of licenses issued by the Agency are described in R12-1-1302.

"Licensed material" means radioactive material received, possessed, used, transferred, or disposed of under a general or specific license issued by the Agency.

"Licensed practitioner" means a person licensed or otherwise authorized by law to practice medicine, dentistry, osteopathy, chiropractic, podiatry, or naturopathy in this state.

"Licensee" means any person who is licensed by the Agency under this Chapter to acquire, possess, transfer, or use sources of radiation.

"Licensing State" means any state having regulations equivalent to this Chapter relating to, and an effective program for the regulation of, naturally occurring and accelerator-produced radioactive material (NARM).

"Limits" (See "Dose limits")

"Local components" means those parts of an analytical x-ray system that are struck by x-rays, including radiation source housings, port and shutter assemblies, collimator, sample holders, cameras, goniometer, detectors and shielding but not including power supplies, transformers, amplifiers, readout devices, and control panels.

"Logging supervisor" means the individual who provides personal supervision of the utilization of sources of radiation at the well site.

"Logging tool" means a device used subsurface to perform well logging.

"Lost or missing licensed or registered source of radiation" means licensed or registered source of radiation the location of which is unknown. Included are licensed radioactive material or a registered radiation source that has been shipped but has not reached its planned destination and whose location cannot be readily traced or ascertained in the transportation system.

"Low-level waste" means waste material which contains radioactive nuclides in concentrations or quantities which exceed applicable standards for unrestricted release but does not include:

High-level waste, such as irradiated reactor fuel, liquid waste from reprocessing irradiated reactor fuel, or solids into which any such liquid waste has been converted;

Waste material containing transuranic elements with contamination levels greater than 10 nanocuries per gram (370 kilobecquerels per kilogram) of waste material;

The tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

"Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material or exceeding four times Type B quantities as sealed sources but does not include nuclear medicine programs, universities, industrial radiographers, or small industrial programs. Type A and B quantities are defined in 10 CFR 71.4, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"Medical dose" means a radiation dose intentionally delivered to an individual for medical examination, diagnosis, or treatment.

"Member of the public" means any individual except when that individual is receiving an occupational dose.

"MeV" means Mega Electron Volt which equals 1 million volts (106 eV).

"Mineral logging" means any well logging performed in a borehole drilled for the purpose of exploration for minerals other than oil or gas.

"Minor" means an individual less than 18 years of age.

"Monitoring" means the measurement of radiation, radio active material concentrations, surface area activities, or quantities of radioactive material, and the use of the results of these measurements to evaluate potential exposures and doses. For purposes of these rules, "radiation monitoring" and "radiation protection monitoring" are equivalent terms.

"Multiplier" means a letter representing a number. The use of a multiplier is based on the code given below:

Prefix	*Multiplier Symbol*	*Value*
eka	E	10^{18}
peta	P	10^{15}
tera	T	10^{12}
giga	G	10^{9}
mega	M	10^{6}
kilo	k	10^{3}
milli	m	10^{-3}
micro	u	10^{-6}
nano	n	10^{-9}

pico	p	10^{-12}
femto	f	10^{-15}
atto	a	10^{-18}

"NARM" means any naturally occurring or accelerator-produced radioactive material. It does not include byproduct, source, or special nuclear material. This term should not be confused with "NORM" which is defined as naturally occurring radioactive material.

"Normal operating procedures" means the entire set of instructions necessary to accomplish the intended use of the source of radiation. These procedures shall include, but are not limited to, sample insertion and manipulation, equipment alignment, routine maintenance by the licensee, and data recording procedures which are related to radiation safety.

"Natural radioactivity" means the radioactivity of naturally occurring radioactive substances.

"NRC" means Nuclear Regulatory Commission, the U.S. Nuclear Regulatory Commission, or its duly authorized representatives.

"Nuclear waste" means any highway route controlled quantity (defined in 49 CFR 173.403, revised October 1, 2012, incorporated by reference, and available under R12-1-101; this incorporated material contains no future editions or amendments) of source, byproduct, or special nuclear material required to be in NRC-approved packaging while transported to, through, or across state boundaries to a disposal site, or to a collection point for transport to a disposal site. Additional requirements associated with transportation of radioactive material can be found in Article 15.

"Occupational dose" means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to sources of radiation, whether in the possession of a licensee, registrant, or other person. Occupational dose does not include a dose received from background radiation, medical administration of radiation to the individual, exposure to an individual who has been administered radioactive material and released in accordance with R12-1-717, voluntary participation in a medical research program, or as a member of the public.

"Open beam system" means an analytical x-ray system in which an individual could place some body part in the primary beam path during normal operation.

"Package" means the packaging together with its radioactive contents as presented for transport.

"Particle accelerator" (See "Accelerator")

"Permanent radiographic installation" means a fixed, shielded installation or structure designed or intended for industrial radiography and in which industrial radiography is regularly performed.

"Personnel dosimeter" (See "Individual monitoring device")

"Personnel monitoring equipment" (See "Individual monitoring device")

"Personal supervision" means supervision in which the supervising individual is physically present at the site where sources of radiation and associated equipment are being used, watching the performance of the supervised individual and in such proximity that immediate assistance can be given if required.

"PET" (See Positron Emission Tomography (PET))

"Pharmacist" means an individual licensed by this state to compound and dispense drugs, prescriptions, and poisons.

"Physician" means an individual licensed pursuant to A.R.S. Title 32, Chapters 13 or 17.

"Positron Emission Tomography (PET)" means an imaging technique using radionuclides to produce high resolution images of the body's biological functions.

"Positron Emission Tomography radionuclide production facility" means a facility operating a cyclotron or accelerator for the purpose of producing PET radionuclides.

"Preceptor" means an individual who provides, directs, or verifies training and experience required for an individual to become an authorized user, an authorized medical physicist, an authorized nuclear pharmacist, or a Radiation Safety Officer.

"Primary beam" means radiation which passes through an aperture of the source housing by a direct path from the x-ray tube or a radioactive source located in the radiation source housing.

"Public dose" means the dose received by a member of the public from radiation from radioactive material released by a licensee or registrant, or exposure to a source of radiation used in a licensed or registered operation. It does not include an occupational dose or a dose received from background radiation, medical administration of radiation to the individual, exposure to an individual who has been administered radioactive material and released in accordance with R12-1-717, or voluntary participation in a medical research program.

"Pyrophoric liquid" means any liquid that ignites spontaneously in dry or moist air at or below 130× F (54.4× C).

"Pyrophoric solid" means any solid material, other than one classed as an explosive, which under normal conditions is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited readily and, when ignited, burns so vigorously and persistently that it creates a serious transportation, handling, or disposal hazard. Included are spontaneously combustible and water-reactive materials.

"Qualified expert" means an individual certified in the appropriate field by the American Board of Radiology or the American Board of Health Physics, or having equivalent qualifications that provide the knowledge and training to measure ionizing radiation, to evaluate safety techniques, and to advise regarding radiation protection needs; or an individual certified in Therapeutic Radiological Physics or X-ray and Radium Physics by the American Board of Radiology, or having equivalent qualifications that provide training and experience in the clinical applications of radiation physics to radiation therapy, to calibrate radiation therapy equipment. The detailed requirements for a particular qualified expert may be provided in the respective Articles of this Chapter. For clarification purposes, a qualified expert is not always an authorized medical physicist; however, an authorized medical physicist is included within the definition of "qualified expert."

"Quality Factor" (Q) means the modifying factor, listed in Tables I and II of this Article, that is used to derive dose equivalent from absorbed dose.

"Quarter" (See "Calendar quarter")

"Rad" means the special unit of absorbed dose. One rad equals 100 ergs per gram, or 0.01 gray.

"Radiation" means alpha particles, beta particles, gamma rays, x-rays, neutrons, high-speed electrons, high-speed protons, and other particles capable of producing ions. For purposes of these rules, this term is synonymous with ionizing radiation. Equivalent terminology for non-ionizing radiation is defined in Article 14.

"Radiation area" means any area accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.05 mSv (0.005 rem) in one hour at 30 centimeters from the source of radiation or from any surface that the radiation penetrates.

"Radiation dose" (See "Dose")

"Radiation machine" means any device capable of producing radiation except those devices with radioactive material as the only source of radiation.

"Radiation Safety Officer" (RSO) means the individual and who for license conditions:

Meets the requirements in 10 CFR 35.50(a) or (c)(1) and 10 CFR 35.59, (revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.); or is identified as a Radiation Safety Officer on a specific medical use license issued by the NRC or an Agreement State; or a medical use permit issued by a NRC master material licensee;

Or, who, for registration conditions, is designated by the registrant as the individual who has the knowledge, authority, and responsibility to apply appropriate radiation protection principles to ensure radiation safety and compliance with the Act, this Chapter and any registration conditions.

"Radiation Safety Officer" (RSO) means the individual and who for license conditions:

Meets the requirements of R12-1-407, and for a medical license meets the training requirements of R12-1-710 or is identified as a Radiation Safety Officer on a specific medical use license issued by the Agency, NRC, or another Agreement State; or a medical use permit issued by a NRC master material licensee;
Or, who meets the requirements in R12-1-512 on a specific industrial license issued by the Agency, NRC, or another Agreement State; or an industrial use permit issued by a NRC master material licensee
;

Or, who, for registration conditions, is designated by the registrant as the individual who has the knowledge, authority, and responsibility to apply appropriate radiation protection principles to ensure radiation safety and compliance with the Act, this Chapter and any registration conditions.

"Radioactive marker" means radioactive material placed subsurface or on a structure intended for subsurface use for the purpose of depth determination or direction orientation.

"Radioactive material" means any solid, liquid, or gas which emits radiation spontaneously.

"Radioactivity" means emission of electromagnetic energy or particles or both during the transformation of unstable atomic nuclei.

"Radiographer" means any individual who performs or personally supervises industrial radiographic operations and who is responsible to the licensee or registrant for assuring compliance with the requirements of this Chapter and all conditions of the license or certificate of registration.

"Radiographer's assistant" means any individual who, under the personal supervision of a radiographer, uses sources of radiation, radiographic exposure devices, related handling tools, or survey instruments in industrial radiography.

"Registrant" means any person who is registered with the Agency and is legally obligated to register with the Agency pursuant to these rules and the Act.

"Registration" is the process by which a person becomes a registrant pursuant to Article 2 of this Chapter. With the exception of registration of persons who install or service radiation machines, the types of registrations issued by the Agency are described in R12-1-1302.

"Regulations of the U.S. Department of Transportation" means the federal regulations in 49 CFR 107, 171 through 180, revised October 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

"Rem" means the special unit of dose equivalent (see "Dose equivalent"). The dose equivalent in rem is equal to the absorbed dose in rad multiplied by the quality factor (1 rem - 0.01 sievert).

"Research and Development" means exploration, experimentation, or the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes. Research and Development does not include the internal or external administration of radiation or radioactive material to human beings.

"Restricted area" means any area where the licensee or registrant controls access for purposes of protecting individuals from exposure to radiation and radioactive material. A restricted area does not include any areas used for residential quarters, although a room or separate rooms in a residential building may be set apart as a restricted area.

"Roentgen" (R) means the special unit of exposure and is equal to the quantity of x or gamma radiation which causes ionization in air equal to 258 microcoulomb per kilogram (see "Exposure").

"Safety system" means any device, program, or administrative control designed to ensure radiation safety.

"Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.

"Sealed Source and Device Registry" means the national registry that contains all the registration certificates, generated by both the NRC and the Agreement States, that summarize the radiation safety information for the sealed sources and devices and describe the licensing and use conditions approved for each source or device.

"Shallow dose equivalent" (HS), which applies to the external exposure of the skin of the whole body or the skin of an extremity, is taken as the dose equivalent at a tissue depth of 0.007 centimeter (7 mg/cm2).

"Shielded position" means the location within a radiographic exposure device or storage container which, by manufacturer's design, is the proper location for storage of the sealed source.

"Sievert" means the SI unit of dose equivalent (see "Dose equivalent"). The dose equivalent in sievert is equal to the absorbed dose in gray multiplied by the quality factor (1 Sv = 100 rem).

"Site boundary" means that line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee or registrant.

"Source changer" means a device designed and used for replacement of sealed sources in radiographic exposure devices, including those also used for transporting and storage of sealed sources.

"Source holder" means a housing or assembly into which a radioactive source is placed for the purpose of facilitating the handling and use of the source in well-logging operations.

"Source material" means:

Uranium or thorium, or any combination of uranium or thorium, in any physical or chemical form; or

Ores that contain by weight 1/20 of 1 percent (0.05 percent) or more of uranium, thorium, or any combination of uranium and thorium.

Source material does not include special nuclear material.

"Source material milling" means any activity that results in the production of byproduct material as defined by the second subsection under the definition of "Byproduct material."

"Source of radiation" or "source" means any radioactive material or any device or equipment emitting, or capable of producing, radiation.

"Special form radioactive material" means radioactive material that satisfies all of the following conditions:

It is either a single solid piece or is contained in a sealed capsule that can be opened only by destroying the capsule;

The piece or capsule has at least one dimension not less than 5 millimeters (0.2 inch); and

It satisfies the test requirements specified in 10 CFR 71.75, revised January 1, 2013, incorporated by reference, available under R12-1-101. This incorporated material contains no future editions or amendments. A special form encapsulation designed in accordance with the U.S. Nuclear Regulatory Commission requirements in effect on June 30, 1983, and constructed prior to July 1, 1985, may continue to be used. A special form encapsulation constructed after June 30, 1985, shall meet requirements of this definition applicable at the time of its construction.

"Special nuclear material in quantities not sufficient to form a critical mass" means Uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; Uranium-233 in quantities not exceeding 200 grams; Plutonium in quantities not exceeding 200 grams; or any combination of them in accordance with the following formula: for each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such ratios for all of the kinds of special nuclear material in combination shall not exceed one. For example, the following quantities in combination would not exceed the limitation and are within the formula:

$$\frac{XgmsU235}{350} + \frac{YgmsU233}{200} + \frac{ZgmsPu}{200} \leq I$$

"Storage area" means any location, facility, or vehicle which is used to store, transport, or secure a radiographic exposure device, storage container, sealed source, or other source of radiation when it is not in use.

"Storage container" means a device in which sealed sources are transported or stored.

"Subsurface tracer study" means the release of a substance tagged with radioactive material for the purpose of tracing the movement or position of the tagged substance in the well-bore or adjacent formation.

"Survey" means an evaluation of the production, use, release, disposal, or presence of sources of radiation or any combination thereof under a specific set of conditions to determine actual or potential radiation hazards. Such evaluations include, but are not limited to, tests, physical examination and measurements of levels of radiation or concentration of radioactive material present.

"TEDE" (See "Total Effective Dose Equivalent")

"Teletherapy" means therapeutic irradiation in which the source of radiation is at a distance from the body.

"Temporary job site" means any location where sources of radiation are used other than the specified locations listed on a license document. Storage of sources of radiation at a temporary jobsite shall not exceed six months unless the Agency has granted an amendment authorizing storage at that jobsite.

"Test" means the process of verifying compliance with an applicable rule, order, or license condition.

"These rules" means all Articles of 12 A.A.C. 1.

"Total Effective Dose Equivalent" (TEDE) means the sum of the effective dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures).

"Total Organ Dose Equivalent" (TODE) means the sum of the deep-dose equivalent and the committed dose equivalent to the organ receiving the highest dose. Determination of TODE is described in R12-1-411.

"Unrefined and unprocessed ore" means ore in its natural form prior to any processing, such as grinding, roasting, beneficiating, or refining.

"Unrestricted area" means any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive material. Any area used for residential quarters is an unrestricted area.

"U.S. Department of Energy" means the Department of Energy established by P.L. 95-91, August 4, 1977, 91 Stat. 565, 42 U.S.C. 7101 et seq., to the extent that the Department exercises functions formerly vested in the U.S. Atomic Energy Commission, its Chairman, members, officers, and components; and transferred to the U.S. Energy Research and Development Administration and to the administrator of that agency under sections 104(b), (c), and (d) of the Energy Reorganization Act of 1974 (P.L. 93-438, October 11, 1974, 88 Stat. 1233 at 1237, 42 U.S.C. 5814, effective January 19, 1975) and retransferred to the Secretary of Energy under Section 301(a) of the Department of Energy Organization Act (P.L. 95-91, August 4, 1977, 91 Stat. 565 at 577-578, 42 U.S.C. 7151, effective October 1, 1977).

"Very high radiation area" means an area, accessible to individuals, in which radiation levels from radiation sources external to the body could result in an individual receiving an absorbed dose that exceeds 5 grays (500 rads) in one hour at one meter from a radiation source or one meter from any surface that the radiation penetrates.

"Waste" (See "Low-level waste")

"Waste handling licensees" means persons licensed to receive and store radioactive wastes prior to disposal and persons licensed to dispose of radioactive waste.

"Week" means seven consecutive days starting on Sunday.

"Well-bore" means a drilled hole in which wireline service operations and subsurface tracer studies are performed.

"Well-logging" means the lowering and raising of measuring devices or tools which may contain sources of radiation into well-bores or cavities for the purpose of obtaining information about the well and adjacent formations.

"Whole body" means, for purposes of external exposure, head, trunk including male gonads, arms above the elbow, or legs above the knee.

"Wireline" means an armored cable containing one or more electrical conductors which is used to lower and raise logging tools in the well-bore.

"Wireline service operation" means any evaluation or mechanical service which is performed in the well-bore using devices on a wireline.

"Worker" means any individual engaged in work under a license issued by the Agency and controlled by employment or contract with a licensee.

"WL" means working level, any combination of short-lived radon daughters in 1 liter of air that will result in the ultimate emission of 1.3E + 5 MeV of potential alpha particle energy. The short-lived radon daughters are – for radon-222: polonium-218, lead-214, bismuth-214, and polonium-214; and for radon-220: polonium-216, lead-212, bismuth-212, and polonium-212.

"WLM" means working level month, an exposure to one working level for 170 hours (2,000 working hours per year divided by 12 months per year is approximately equal to 170 hours per month).

"Workload" means the degree of use of an x-ray or gamma-ray source per unit time.

"Year" means the period of time beginning in January used to determine compliance with the provisions of these rules. The licensee or registrant may change the starting date of the year used to determine compliance by the licensee or registrant provided that the change is made at the beginning of the year and that no day is omitted or duplicated in consecutive years.

Historical Note

Former Rule Section A.2. Former Section R12-1-102 repealed, new Section R12-1-102 adopted effective June 30, 1977 (Supp. 77-3). Amended effective November 19, 1982 (Supp. 82-6). Amended effective February 25, 1985 (Supp. 85-1). Amended by adding a new paragraph (31), subparagraph (w) and renumbering the former paragraph (31), subparagraphs (w) through (z) accordingly effective November 28, 1986 (Supp. 86-6). Amended by adding a new paragraph (34) and renumbering the former paragraphs (34) through (68) accordingly effective June 26, 1987 (Supp. 87-2). Amended effective April 2, 1990 (Supp. 90-2). Amended effective November 5, 1993 (Supp. 93-4). Amended effective February 18, 1994 (Supp. 94-1). Amended effective August 10, 1994 (Supp. 94-3). Amended effective January 2, 1996 (Supp. 96-1). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-103. Exemptions

A. Common and contract carriers, freight forwarders, and warehousemen who are subject to 49 CFR 107.109, 107.111, 107.113, 171.2, 171.3, 172.200, 173.1, 173.3, 173.4, 173.401, 175.3, 175.10, 176.3, 176.5, 176.11, 176.24, 176.27, and 177.801, revised October 1, 2007, of the U.S. Department of Transportation, or 39 CFR 111.1 of the U.S. Postal Service, revised July 1, 2007, incorporated by reference, and available under R12-1-101, and who if need be, store radioactive material, for periods of less than 72 hours, in the regular course of their carriage for another, are exempt from this Chapter. The incorporated materials above contain no future editions or amendments.

B. Any U.S. Department of Energy contractor or subcontractor and any U.S. Nuclear Regulatory Commission contractor or subcontractor of the following categories operating within this state are exempt from this Chapter to the extent that such contractor or subcontractor under the contract receives, possesses, uses, transfers, or acquires sources of radiation:

1. Prime contractors performing work for the Department of Energy at U.S. Government-owned or controlled sites, including the transportation of sources of radiation to or from such sites and the performance of contract services during temporary interruptions of such transportation;
2. Prime contractors of the Department of Energy performing research or development, manufacture, storage, testing or transportation of nuclear weapons or components thereof;
3. Prime contractors of the Department of Energy using or operating nuclear reactors or other nuclear devices in a United States Government-owned vehicle or vessel; and
4. Any other prime contractor or subcontractor of the Department of Energy or of the Nuclear Regulatory Commission when the state and the Nuclear Regulatory Commission jointly determine:
   a. That the exemption of the prime contractor or subcontractor is authorized by law; and

b. That under the terms of the contract or subcontract, there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety.

C. Any licensee who delivers to a carrier for transport any package which contains radioactive material having a specific activity of 74 kBq/kg (2 nanocuries per gram) or less, is exempt from the provisions of this Chapter with respect to that package.

Historical Note

Former Rule Section A.3; Former Section R12-1-103 repealed, new Section R12-1-103 adopted effective June 30, 1977 (Supp. 77-3). Amended effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-104. Prohibited Uses

A. A person shall not use the following fluoroscopic devices:
1. Hand-held fluoroscopic screens,
2. Shoe-fitting fluoroscopic devices.

B. Except as specifically authorized by law, a person shall not use sources of ionizing radiation for the purpose of screening an individual or inspecting an individual for:
1. Concealed weapons,
2. Hazardous materials,
3. Stolen property, or
4. Contraband.

C. Unless there is a medical or dental indication for the exposure and the exposure is prescribed by a licensed practitioner, a person shall not deliberately expose an individual to the useful beam from:
1. An ionizing radiation machine; or
2. A non-ionizing radiation source, having a radiation beam known to be harmful to human tissue.

Historical Note

Former Rule Section A.4; Former Section R12-1-104 repealed, new Section R12-1-104 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-104 repealed, new Section R12-1-104 renumbered from R12-1-112 and amended effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

R12-1-105. Quality Factors for Converting Absorbed Dose to Dose Equivalent

A. As used in these rules, the quality factors for converting absorbed dose to dose equivalent are shown in Table I.

TABLE I
QUALITY FACTORS AND ABSORBED DOSE EQUIVALENCIES

Quality Factor TYPE OF RADIATION	Absorbed Dose (Q)	Equal to a Unit Dose Equivalent[a]
X, gamma, or beta radiation and high-speed electrons		1
Alpha particles, multiple-charged particles, fission fragments, and heavy particles of unknown charge	20	0.05
Neutrons of unknown energy	10	0.1
High-energy protons	10	0.1

[a]The absorbed dose in gray is equal to 1 Sv or the absorbed dose in rad is equal to 1 rem.

B. If it is more convenient to measure the neutron fluence rate than to determine the neutron dose equivalent rate in sievert per hour or rem per hour, 0.01 Sv (1 rem) of neutron radiation of unknown energies may, for purposes of these rules, be assumed to result from a total fluence of 25 million neutrons per square centimeter incident upon the body. If sufficient information exists to estimate the approximate energy distribution of the neutrons, the licensee or registrant may use the fluence rate per unit dose equivalent or the appropriate Q value from Table II to convert a measured tissue dose in gray or rad to dose equivalent in sievert or rem.

TABLE II
MEAN QUALITY FACTORS, Q, AND FLUENCE PER UNIT DOSE EQUIVALENT FOR MONOENERGETIC NEUTRONS

	Neutron Energy (meV)	Quality Factor (Q)	Fluence per Unit Dose Equivalent[b] (neutrons cm^{-2} $^{r}em^{-1}$)	Fluence per Unit Dose Equivalent[b] (neutrons cm^{-2} $^{S}v^{-1}$)
(thermal)	2.5E-8	2	980E+6	980E+8
	1E-7	2	980E+6	980E+8
	1E-6	2	810E+6	810E+8
	1E-5	2	810E+6	810E+8
	1E-4	2	840E+6	840E+8
	1E-3	2	980E+6	980E+8
	1E-2	2.5	1010E+6	1010E+8
	1E-1	7.5	170E+6	170E+8
	5E-1	11	39E+6	39E+8
	1	11	27E+6	27E+8
	2.5	9	29E+6	29E+8
	5	8	23E+6	23E+8
	7	7	24E+6	24E+8
	10	6.5	24E+6	24E+8
	14	7.5	17E+6	17E+8
	20	8	16E+6	16E+8
	40	7	14E+6	14E+8
	60	5.5	16E+6	16E+8
	1E+2	4	20E+6	20E+8
	2E+2	3.5	19E+6	19E+8
	3E+2	3.5	16E+6	16E+8
	4E+2	3.5	14E+6	14E+8

[a] Value of quality factor (Q) at the point where the dose equivalent is maximum in a 30-centimeter diameter cylinder tissue-equivalent phantom.
[b] Monoenergetic neutrons incident normally on a 30-centimeter diameter cylinder tissue-equivalent phantom.

Historical Note

Former Rule Section A.5; Former Section R12-1-105 repealed, new Section R12-1-105 adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2). New Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

R12-1-106. Units of Activity

For purposes of these rules, activity is expressed in the SI unit of becquerel (Bq) or in the special unit of curie (Ci), or their multiples, or disintegrations or transformations per unit of time. The definitions for these units are located in R12-1-102.

Historical Note

Former Rule Section A.6; Former Section R12-1-1-6 repealed, new Section R12-1-106 adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2). New Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

R12-1-107. Misconduct

A. A licensee, registrant, applicant for a license or certificate of registration, or employee of a licensee, registrant, or applicant; or any contractor (including a supplier or consultant), subcontractor, or employee of a contractor or subcontractor of any licensee or certificate

of registration holder who provides to any licensee, registrant, applicant, contractor, or subcontractor, any components, equipment, materials, or other goods or services that relate to a licensee's, registrant's, or applicant's activities in this Chapter, shall not:

1. Knowingly engage in conduct that violates or will result in a violation by a licensee, registrant, or applicant, of any statute, rule, regulation, or order; or any term, condition, or limitation of any license or registration issued by the Agency; or
2. Knowingly submit to the Agency, or a licensee, registrant, or applicant, or a licensee's, registrant's, or applicant's contractor or subcontractor, information that is incomplete or inaccurate.

B. The Board shall impose the applicable civil penalty listed in R12-1-1216 on a person who violates subsection (A)(1) or (A)(2). For this purpose the person is classified as a Division II licensee and the violation is classified as a Severity II violation.

C. For the purposes of this Section, "misconduct" means conduct prohibited under subsection (A).

D. A person who is not a licensee, registrant, or applicant and knowingly violates a rule for the safe use of radiation sources in 12 A.A.C.1 is subject to the enforcement actions in 12 A.A.C. 1, Article 12.

Historical Note

Former Rule Section A.7; Former Section R12-1-107 repealed, new Section R12-1-107 adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2). New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-108. Repealed

Historical Note

Former Rule Section A.8; Former Section R12-1-108 repealed, new Section R12-1-108 adopted effective June 30, 1977 (Supp. 77-3). Change of address (Supp. 85-6). Section repealed effective April 2, 1990 (Supp. 90-2).

R12-1-109. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

R12-1-110. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

R12-1-111. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed effective April 2, 1990 (Supp. 90-2).

R12-1-112. Renumbered

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-112 renumbered to R12-1-104 effective April 2, 1990 (Supp. 90-2).

Appendix A. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective August 10, 1994 (Supp. 94-3).

Appendix B. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective August 10, 1994 (Supp. 94-3).

ARTICLE 3. RADIOACTIVE MATERIAL LICENSING

R12-1-301. Ownership, Control, or Transfer of Radioactive Material

A. In addition to the requirements of this Article, all licensees are subject to the requirements of 12 A.A.C. 1, Article 1, Article 4, and Article 10. Licensees engaged in industrial radiographic operations are subject to the requirements of 12 A.A.C. 1, Article 5; licensees using radioactive material in the practice of medicine are subject to the requirements of 12 A.A.C. 1, Article 7; licensees transporting radioactive material are subject to the requirements contained in 12 A.A.C. 1, Article 15; and licensees using radioactive material in well logging operations are subject to the requirements in 12 A.A.C. 1, Article 17.

B. Notwithstanding any other provisions of this Article, any person may own radioactive material, provided that the ownership does not include the actual possession, custody, use, or physical transfer of radioactive material or the manufacture or production of any article that contains radioactive material without the applicable certification, license, or registration.

C. A manufacturer, processor, or producer of any equipment, device, commodity, or other product that contains source material or radioactive material whose subsequent possession, use, transfer, or disposal by all other persons is exempt from regulatory requirements may only obtain authority to transfer possession or control of the material from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

Historical Note

Former Rule Section C.1. Former Section R12-1-301 repealed, new Section R12-1-301 adopted effective June 30, 1977 (Supp. 77-3).

Radiation Regulatory Agency

Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-301 renumbered to R12-1-322, new Section R12-1-301 adopted effective February 18, 1994 (Supp. 94-1). Former Section R12-1-301 repealed; new Section R12-1-301 renumbered from R12-1-302 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-302. Source Material; Exemptions

A. Any person is exempt from this Article to the extent the person receives, possesses, uses, delivers or transfers source material in any chemical mixture, compound, solution, or alloy in which the source material is by weight less than 1/20th of 1 percent (0.0005) of the mixture, compound, solution, or alloy.

B. Any person is exempt from this Article to the extent the person receives, possesses, uses, or transfers unrefined and unprocessed ore containing source material, provided that, the person does not refine or process the ore except as authorized in a specific license.

C. Any person is exempt from this Article if the person receives, possesses, uses, or transfers:

1. Any quantities of thorium contained in:
   a. Incandescent gas mantles;
   b. Vacuum tubes;
   c. Welding rods;
   d. Electric lamps for illuminating purposes provided that each lamp does not contain more than 50 milligrams of thorium;
   e. Germicidal lamps, sunlamps, and lamps for outdoor or industrial lighting, provided that each lamp does not contain more than 2 grams of thorium;
   f. Rare earth metals, compounds, mixtures, or products containing not more than 0.25 percent by weight thorium, uranium, or any combination of thorium and uranium; or
   g. Individual neutron dosimeters, provided that each dosimeter does not contain more than 50 milligrams of thorium;
2. Source material contained in the following products:
   a. Glazed ceramic tableware, provided that the glaze contains not more than 20 percent source material by weight;
   b. Glassware, glass enamel and glass enamel frit containing not more than 10 percent source material by weight, but not including commercially manufactured glass brick, pane glass, ceramic tile or other glass, glass enamel or ceramic used in construction; or
   c. Piezoelectric ceramic containing not more than 2 percent source material by weight;
3. Photographic film, negatives, and prints containing uranium or thorium;
4. Any finished product or part fabricated of, or containing, tungsten-thorium or magnesium-thorium alloys, provided that the thorium content of the alloy does not exceed 4 percent by weight and that the exemption contained in this subsection does not authorize the chemical, physical, or metallurgical treatment or processing of the finished product or part;
5. Uranium contained in counterweights installed in aircraft, rockets, projectiles, and missiles, or stored or handled in connection with installation or removal of counterweights, provided that:
   a. The counterweights are manufactured in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, authorizing distribution by the licensee according to 10 CFR 40;
   b. Each counterweight has been impressed with the following legend clearly legible through any plating or other covering: “DEPLETED URANIUM”;
   c. Each counterweight is durably and legibly labeled or marked with the identification of the manufacturer and the statement: “UNAUTHORIZED ALTERATIONS PROHIBITED”; and
   d. The exemption contained in this item does not authorize the chemical, physical, or metallurgical treatment or processing of any counterweight other than repair or restoration of any plating or other covering; and
   e. The requirements specified in subsections (C)(5)(b) and (c) do not apply to counterweights manufactured prior to December 31, 1969; provided, that these counterweights are impressed with the legend, “CAUTION – RADIOACTIVE MATERIAL – URANIUM.”
6. Natural or depleted uranium metal used as shielding and constituting part of any shipping container; provided that:
   a. The shipping container is conspicuously and legibly impressed with the legend “CAUTION – RADIOACTIVE SHIELDING – URANIUM,” and
   b. The uranium metal is encased in mild steel or equally fire resistant metal with minimum wall thickness of 1/8 inch (3.2 mm).
7. Thorium contained in finished optical lenses, provided that each lens does not contain more than 30 percent of thorium by weight, and that the exemption contained in this item does not authorize either:
   a. The shaping, grinding, or polishing of a thoriated lens or manufacturing processes other than the assembly of a thoriated lens into optical systems and devices without any alteration of the lens; or
   b. The receipt, possession, use, or transfer of thorium contained in contact lenses, spectacles, or the eyepieces of binoculars or other optical instruments;
8. Uranium contained in detector heads of fire detection units, provided that each detector head contains not more than 5 nanocuries (185 Bq) of uranium; or
9. Thorium contained in any finished aircraft engine part containing nickel-thoria alloy, provided that:
   a. The thorium is dispersed in the nickel-thoria alloy in the form of finely divided thoria (thorium dioxide), and
   b. The thorium content in the nickel-thoria alloy does not exceed 4 percent by weight.

D. The exemptions in subsection (C) do not authorize the manufacture of any of the products described.

Radiation Regulatory Agency

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended subsection (C) effective November 22, 1988 (Supp. 88-4). Former Section R12-1-302 renumbered to R12-1-303, new Section R12-1-302 renumbered from R12-1-301 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-302 renumbered to R12-1-301; new Section R12-1-302 renumbered from R12-1-303 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-303. Radioactive Material Other Than Source Material; Exemptions

A. Exempt concentrations

1. Except as provided in subsection (A)(3) and (A)(4), any person is exempt from this Article if the person receives, possesses, uses, transfers, owns, or acquires products or materials containing radioactive material in concentrations not in excess of those listed in Exhibit A.
2. This Section shall not be deemed to authorize the import of radioactive material or products containing radioactive material.
3. A manufacturer, processor, or producer of a product or material is exempt from the requirements for a license issued under R12-1-311(A) or the requirements of this Article to the extent that this person transfers radioactive material contained in a product or material in concentrations not in excess of those specified in Exhibit A of this Article and introduced into the product or material by a licensee holding a specific license issued by the NRC expressly authorizing such introduction. This exemption does not apply to the transfer of radioactive material contained in any food, beverage, cosmetic, drug, or other commodity or product designed for ingestion or inhalation by, or application to, a human being.
4. A person shall not introduce radioactive material into a product or material knowing or having reason to believe that it will be transferred to persons exempt under subsection (A)(1) or equivalent Regulations of the U.S. Nuclear Regulatory Commission or any Agreement State or Licensing State, except in accordance with a license issued under 10 CFR 32.11.

B. Exempt items

1. Except for persons who apply radioactive material to, or persons who incorporate radioactive material into the following products, or persons who initially transfer for sale or distribution the following products, a person is exempt from this Chapter to the extent that the person receives, possesses, uses, transfers, owns, or acquires the following products:
   a. Timepieces, hands, or dials containing not more than the following specified quantities of radioactive material and not exceeding the following specified levels of radiation:
      i. 925 megabecquerels (25 millicuries) of tritium per timepiece,
      ii. 185 megabecquerels (5 millicuries) of tritium per hand,
      iii. 555 megabecquerels (15 millicuries) of tritium per dial (bezels when used shall be considered part of the dial),
      iv. 3.7 megabecquerels (100 microcuries) of promethium-147 per watch or 7.4 megabecquerels (200 microcuries) of promethium-147 per any other timepiece,
      v. 740 kBq (20 microcuries) of promethium-147 per watch hand or 1.48 megabecquerels (40 microcuries) of promethium-147 per other timepiece hand,
      vi. 2.22. megabecquerels (60 microcuries) of promethium-147 per watch dial or 4.44 MBq (120 microcuries) of promethium-147 per other timepiece dial (bezels, when used, shall be considered part of the dial),
      vii. The levels of radiation from hands and dials containing promethium-147 shall not exceed, when measured through 50 milligrams per square centimeter of absorber:
         (1) For wrist watches, 1.0 μGy (0.1 millirad) per hour at 10 centimeters from any surface of the watch;
         (2) For pocket watches, (0.1 millirad) per hour at 1 centimeter from any surface;
         (3) For any other timepiece, 2.0 μGy (0.2 millirad) per hour at 10 centimeters from any surface;
      viii. 37 kBq (1 microcurie) of radium-226 per timepiece in intact timepieces manufactured prior to November 30, 2007;
   b. Static elimination devices which contain, as a sealed source or sources, radioactive material consisting of a total of not more than 18.5 MBq (500 μCi) of polonium-210 per device.
      i. Ion generating tubes designed for ionization of air that contain, as a sealed source or sources, radioactive material consisting of a total of not more than 18.5 MBq (500 μCi) of polonium-210 per device or of a total of not more than 1.85 GBq (50 mCi) of hydrogen-3 (tritium) per device.
      ii. Such devices authorized before October 23, 2012 for use under the general license then provided in R12-1-306 and equivalent regulations of the NRC or Agreement State and manufactured, tested, and labeled by the manufacturer in accordance with the specifications contained in a specific license issued by the NRC.
   c. Balances of precision containing not more than 37 megabecquerels (1 millicurie) of tritium per balance or not more than 18.5 megabecquerels (0.5 millicurie) of tritium per balance part manufactured before December 17, 2007;
   d. Marine compasses containing not more than 27.75 gigabecquerels (750 millicuries) of tritium gas and other marine navigational instruments containing not more than 9.25 gigabecquerels (250 millicuries) of tritium gas manufactured before December 17, 2007;
   e. Ionization chamber smoke detectors containing not more than 37 kBq (1 microcurie) of americium-241 per detector in the form of a foil and designed to protect life and property from fires;
   f. Electron tubes: Provided that each tube does not contain more than one of the following specified quantities of radioactive material:
      i. 5.55 GBq (150 millicuries) of tritium per microwave receiver protector tube or 370 megabecquerels (10 millicuries) of tritium per any other electron tube;
      ii. 37 kBq (1 microcurie) of cobalt 60;

iii. 185 kBq (5 microcuries) of nickel 63;
iv. 1.11 megabecquerels (30 microcuries) of krypton 85;
v. 185 kBq (5 microcuries) of cesium 137;
vi. 1.11 megabecquerels (30 microcuries) of promethium-147;
vii. And provided further, that the level of radiation due to radioactive material contained in each electron tube does not exceed 10 μGy (1 millirad) per hour at 1 centimeter from any surface when measured through 7 milligrams per square centimeter of absorber. The term "electron tubes" includes spark gap tubes, power tubes, gas tubes, including glow lamps, receiving tubes, microwave tubes, indicator tubes, pick-up tubes, radiation detection tubes, and any other completely sealed tube that is designed to conduct or control electrical current;

g. Ionizing radiation measuring instruments containing, for purposes of internal calibration or standardization, one or more sources of radioactive material provided that:
i. Each source contains no more than one exempt quantity set forth in Exhibit B of this Article; and
ii. Each instrument contains no more than 10 exempt quantities. For the purposes of this subsection, an instrument's source or sources may contain either one type or different types of radionuclide and an individual exempt quantity may be composed of fractional parts of one or more of the exempt quantities in Exhibit B of this Article, provided the sum of the fractions do not exceed unity;
iii. For the purposes of subsection (B)(1)(h) only, 185 kBq (50 nanocurie) of americium-241 is considered an exempt quantity under Exhibit B of this Article;

h. Any person who desires to apply radioactive material to, or to incorporate radioactive material into, the products exempted in subsection (B)(1)(a), or who desires to initially transfer for sale or distribution such products containing radioactive material, should apply for a specific license pursuant to R12-1-311 of this Article, which license states that the product may be distributed by the licensee to persons exempt from the rules pursuant R12-1-303 (A)(1).

2. Self-luminous products
a. Except for persons who manufacture, process, initially transfer for sale or distribution, or produce self-luminous products containing tritium, krypton-85, or promethium-147, a person is exempt from this Chapter if the person receives, possesses, uses, owns, transfers or acquires tritium, krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced, imported, initially transferred for sale or distribution, or transferred under a specific license issued by the U.S. Nuclear Regulatory Commission and described in 10 CFR 32.22, and the license authorizes the transfer of the products to persons who are exempt from regulatory requirements. This exemption does not apply to tritium, krypton-85, or promethium-147 used in products for frivolous purposes or in toys or adornments.
b. A person is exempt from this Chapter if the person receives, possesses, uses, or transfers articles containing less than 3.7 kBq (100 nanocuries) of radium-226, manufactured prior to October 1, 1978.

3. Gas and aerosol detectors containing radioactive material
a. Except for persons who manufacture, process, initially transfer for sale or distribution, or produce gas and aerosol detectors containing radioactive material, a person is exempt from this Chapter if the person receives, possesses, uses, transfers, owns, or acquires radioactive material in gas and aerosol detectors designed to protect life or property from fires and airborne hazards, provided that detectors containing radioactive material shall be manufactured, imported, or transferred according to a specific license issued by the U.S. Nuclear Regulatory Commission and described in 10 CFR 32.26, or equivalent regulations of an Agreement or Licensing State, this exemption also covers gas and aerosol detectors manufactured or distributed before November 30, 2007 in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, or equivalent regulations of an Agreement or Licensing State and the license authorizes the transfer of the detectors to persons who are exempt from regulatory requirements.
b. Gas and aerosol detectors previously manufactured and distributed to general licensees in accordance with a specific license issued by an Agreement State are exempt under subsection (B)(4)(a), provided that the device is labeled in accordance with the specific license authorizing distribution of the general licensed device, and that the detectors meet the requirements of the regulations of the U.S. Nuclear Regulatory Commission.

C. Exempt quantities
1. Except as provided in subsections (C)(2), (3), and (7), a person is exempt from this Chapter if the person receives, possesses, uses, transfers, owns, or acquires radioactive material in individual quantities each of which does not exceed the applicable quantity set forth in Exhibit B of this Article.
2. This subsection does not authorize the production, packaging, or repackaging or transfer of radioactive material for purposes of commercial distribution, or the incorporation of radioactive material into products intended for commercial distribution.
3. Except as specified in this subsection, a person shall not, for purposes of commercial distribution, transfer radioactive material in the individual quantities set forth in Exhibit B of this Article, knowing or having reason to believe the described quantities of radioactive material will be transferred to persons exempt under subsection (C) or equivalent regulations of the U.S. Nuclear Regulatory Commission or any Agreement State or Licensing State. A person may transfer radioactive material for commercial distribution under a specific license issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.18 which license states that the radioactive material may be transferred by the licensee to persons exempt under this subsection or the equivalent regulations of the U.S. Nuclear Regulatory Commission or any Agreement State or Licensing State.
4. Sources containing exempt quantities of radioactive material shall not be bundled or placed in close proximity for the purpose of using the radiation from the combined sources in place of a single source, containing a licensable quantity of radioactive material.

5. Possession and use of bundled or combined sources containing exempt quantities of radioactive material in unregistered devices by persons exempt from licensing is prohibited.
6. Any person, who possesses radioactive material received or acquired before September 25, 1971, under the general license issued under R12-1-311(A) of this Article or similar general license of an Agreement State or the NRC, is exempt from the requirements for a license issued under R12-1-311(A) of this Article to the extent that this person possesses, uses, transfers, or owns radioactive material.
7. No person may, for purposes of producing an increased radiation level, combine quantities of radioactive material covered by the exemption described in subsection (C)(6) so that the aggregate quantity exceeds the limits set forth in Exhibit B, except for radioactive material combined within a device placed in use before May 3, 1999, or as otherwise permitted by the rules in this Section.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-303 renumbered to R12-1-304, new Section R12-1-303 renumbered from R12-1-302 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-303 renumbered to R12-1-302; new Section R12-1-303 renumbered from R12-1-304 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-304. License Types

A. Activities requiring license. Except as provided in 10 CFR 30.3 (revised January 1, 2013, incorporated by reference, and available under R12-1-101; this incorporated material contains no future editions or amendments) this Section and for persons exempt as provided in R12-1-302 and R12-1-303 of this Article, no person shall manufacture, produce, transfer, receive, acquire, own, possess, or use byproduct material except as authorized in a specific or general license issued in accordance with the regulations in this chapter and in accordance with 10 CFR 30.3.

B. Licenses for radioactive materials are of two types: general and specific.

1. A general license is provided by rule, grants authority to a person for certain activities involving radioactive material, and is effective without the filing of an application with the Agency or the issuance of a licensing document to a particular person. However, registration with the Agency may be required by the particular general license.
2. The Agency issues a specific license to a named person who has filed an application for a license under the applicable provision of this Chapter. A specific licensee is subject to all of the applicable rules in this Chapter and any limitation contained in the license document.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-304 renumbered to R12-1-305, new Section R12-1-304 renumbered from R12-1-303 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-304 renumbered to R12-1-303; new Section R12-1-304 renumbered from R12-1-305 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-305. General Licenses – Source Material

A. This subsection grants a general license that authorizes commercial and industrial firms; research, educational, and medical institutions; and state and local government agencies to use, and transfer not more than 6.8 kg (15 pounds) of source material at any one time for research, development, educational, commercial, or operational purposes. A person authorized under this subsection shall not receive more than 68.2 kg (150 pounds) of source material in one calendar year.

B. A person who receives, possesses, uses, or transfers source material under a general license granted under subsection (A) is exempt from the provisions of 12 A.A.C. 1, Article 4 and Article 10, provided the receipt, possession, use, or transfer is within the terms of the general license. This exemption does not apply to any person who is also in possession of source material under a specific license issued under this Article.

C. This subsection grants a general license that authorizes a person to receive acquire, possess, use, or transfer depleted uranium contained in industrial products and devices provided:

1. The depleted uranium is contained in the industrial product or device for the purpose of providing a concentrated mass in a small volume of the product or device;
2. The industrial products or devices have been manufactured or initially transferred in accordance with a specific license governed by R12-1-311(M), or a specific license issued by the U.S. Nuclear Regulatory Commission or an Agreement State that authorizes manufacture of the products or devices for distribution to persons generally licensed by the U.S. Nuclear Regulatory Commission or an Agreement State;
3. The person files an ARRA 23 “Registration Certificate -- Use of Depleted Uranium Under General License” with the Agency. The person shall provide the information requested on the certificate and listed in Exhibit E. The person shall submit the information within 30 days after first receipt or acquisition of the depleted uranium, returning the completed registration certificate to the Agency. The person shall report in writing to the Agency any change in information originally submitted to the Agency on ARRA 23. The person shall submit the change report within 30 days after the effective date of the described change.

D. A person who receives, acquires, possesses, or uses depleted uranium according to the general license provided under subsection (C) shall:

1. Not introduce depleted uranium, in any form, into a chemical, physical, or metallurgical treatment or process, except a treatment or process for repair or restoration of any plating or other covering of the depleted uranium;
2. Not abandon the depleted uranium;
3. Transfer the depleted uranium as prescribed in R12-1-318. If the transferee receives the depleted uranium under a general license established by subsection (C), the transferor shall furnish the transferee with a copy of this Section and a copy of the registration certificate. If the transferee receives the depleted uranium under a general license governed by a regulation of the U.S. Nuclear Regulatory Commission or an Agreement State that is equivalent to subsection (C), the transferor shall furnish the transferee a copy of the equivalent rule and a copy of the registration certificate, accompanied by a letter explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or an Agreement State under requirements substantially similar to those in this Section;
4. Within 30 days of any transfer, report in writing to the Agency the name and address of the person receiving the depleted uranium; and
5. Not export depleted uranium except under a license issued by the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 110.

E. A person who receives, acquires, possesses, uses, or transfers depleted uranium in accordance with a general license granted under subsection (C) is exempt from the requirements of 12 A.A.C. 1, Articles 4 and 10 with respect to the depleted uranium covered by that general license.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-305 renumbered to R12-1-306, new Section R12-1-305 renumbered from R12-1-304 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-305 renumbered to R12-1-304; new Section R12-1-305 renumbered from R12-1-306 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3).

R12-1-306. General License – Radioactive Material Other Than Source Material

A. This subsection grants a general license that authorizes a commercial or industrial firm, to transfer, receive, acquire, own, possess, and use radioactive material incorporated in the following devices or equipment manufactured, tested, and labeled by the manufacturer in accordance with a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission under 10 CFR 31.3. The devices regulated by this subsection include:

1. Devices designed for use as static eliminators that contain, as a sealed source or sources, radioactive material, consisting of a total of not more than 18.5 MBq (500 microcuries) of polonium-210 per device; or
2. Devices designed for ionization of air that contain, as a sealed source or sources, radioactive material, consisting of a total of not more than 18.5 MBq (500 microcuries) of polonium-210 per device or 1.85 GBq (50 millicuries) of hydrogen-3 (tritium) per device.

B. Certain measuring, gauging or controlling devices and certain devices for producing light or an ionized atmosphere.

1. This subsection grants a general license to a commercial or industrial firm; a research, educational or medical institution; an individual conducting business; or a state or local government agency to receive, acquire, possess, use, or transfer radioactive material contained in devices designed and manufactured for the purpose of detecting, measuring, gauging or controlling thickness, density, level, interface location, radiation, leakage, or qualitative or quantitative chemical composition, or for producing light or an ionized atmosphere, according to the provisions of 10 CFR 31.5(b), (c), and (d), (Revised January 1, 2013, incorporated by reference, and available under R12-1-101. The incorporated material contains no future editions or amendments.
2. A general licensee shall receive a device from one of the specific licensees described in this Section or through a transfer made under subsection (B)(4)(k).
3. A general license in subsection (B)(1) applies only to radioactive material contained in devices that have been manufactured or initially transferred and labeled in accordance with the requirements contained in:
   a. A specific license issued under R12-1-311(A), or
   b. An equivalent specific license issued by the NRC or another Agreement State.
   c. An equivalent specific license issued by a State with rules or regulations comparable to this Section.
4. A person who acquires, receives, possesses, uses, or transfers radioactive material in a device licensed under subsection (B)(1) or through a transfer made under subsection (B)(4)(h), shall:
   a. Ensure that all labels and safety statements affixed to a device at the time of receipt and bearing a statement that removal of the label is prohibited are maintained and not removed, and comply with all instructions and precautions on the labels.
   b. Ensure that the device is tested for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, at no longer than six-month intervals or at other intervals as specified on the label.
      i. A general licensee need not test a device that contains only krypton for leakage of radioactive material; and
      ii. A general licensee need not test a device for leakage of radioactive material if the device contains only tritium, not more than 3.7 megabecquerels (100 microcuries) of other beta and/or gamma emitting material, or 370 kilobecquerels (10 microcuries) of alpha emitting material, or the device is held in storage, in the original shipping container, before initial installation.
   c. Ensure that the tests required by subsection (B)(4)(b) and other testing, installation, servicing, and removal from installation involving the radioactive material or its shielding or containment, are performed:

i. In accordance with the device label instructions, or
ii. By a person holding a specific license under R12-1-311(A) or in accordance with the provisions of a specific license issued by the NRC or an Agreement State which authorizes distribution of devices to persons generally licensed by the NRC or an Agreement State.

d. Maintain records of compliance with the requirements in subsections (B)(4)(b) and (c) that show the results of tests; the dates that required activities were performed, and the names of persons performing required activities involving radioactive material from the installation and its shielding or containment. The records shall be maintained for three years from the date of the recorded event or until transfer or disposal of the device.

e. Immediately suspend operation of a device if there is a failure of, or damage to, or any indication of a possible failure of or damage to, the shielding of the radioactive material or the on-off mechanism or indicator, or upon the detection of 185 becquerel (0.005 microcurie) or more of removable radioactive material.
i. A general licensee shall not operate the device until it has been repaired by the manufacturer or another person holding a specific license to repair this type of device that was issued by the Agency under R12-1-311(A), the NRC, or an Agreement State which authorizes distribution of devices to persons generally licensed by the NRC or an Agreement State.
ii. If necessary the general licensee shall dispose of the device and any radioactive material from the device by transfer to a person authorized by a specific license to receive the radioactive material in the device or as otherwise approved by the Agency.
iii. Within 30 days of an event governed by subsection (B)(4)(e) the general licensee shall furnish a report that contains a brief description of the event and the remedial action taken and, in the case of detection of 185 Becquerel (0.005 microcurie) or more of removable radioactive material or failure of or damage to a source likely to result in contamination of the general licensee's facility or the surrounding area, if applicable, a plan for ensuring that the general licensee's facility and surrounding area, if applicable, are acceptable for unrestricted use. The radiological criteria for unrestricted use in R12-1-452 may be used to prepare the plan, as determined by the Agency, on a case-by-case basis.

f. Not abandon a device that contains radioactive material.

g. Not export a device that contains radioactive material except in accordance with 10 CFR 110, revised January 1, 2013, incorporated by reference, and available under R12-1-101. The incorporated material contains no future editions or amendments.

h. Transfer or dispose of a device that contains radioactive material only by export as authorized in subsection (B)(4)(g), transfer to another general licensee as authorized in subsection (B)(4)(k) or a person who is authorized to receive the device by a specific license issued by the Agency, the NRC, or an Agreement State, or collection as waste if authorized by equivalent regulations of an Agreement State, or the NRC, or as otherwise approved under subsection (B)(4)(j).

i. Within 30 days after the transfer or export of a device to a specific licensee, furnish a report to the Agency. The report shall:
i. Identify the device by manufacturer's (or initial transferor's) name, model number, and serial number;
ii. Provide the name, address, and license number of the person receiving the device (license number not applicable if exported); and
iii. Provide the date of transfer or export.

j. Obtain written Agency approval before transferring a device to any other specific licensee that is not authorized in accordance with subsection (B)(4)(h).

k. Transfer a device to another general licensee only:
i. If the device remains in use at a particular location. The transferor shall provide the transferee with a copy of this Section, a copy of R12-1-443, R12-1-445, and R12-1-448 and any safety documents identified on the device label. Within 30 days of the transfer, the transferor shall report to the Agency the manufacturer's (or initial transferor's) name; the model number and the serial number of the device transferred; the transferee's name and mailing address for the location of use; and the name, title, and telephone number of the responsible individual appointed by the transferee in accordance with subsection (B)(4)(n); or
ii. If the device is held in storage in the original shipping container at its intended location of use before initial use by a general licensee, and by a person that is not a party to the transaction.

l. Comply with the provisions of R12-1-443, R12-1-444, R12-1-445, R12-1-447, and R12-1-448 for reporting and notification of radiation incidents, theft or loss of licensed material, and is exempt from the other requirements of 12 A.A.C. 1, Articles 4 and 10.

m. Respond to written requests from the Agency to provide information relating to the general license within 30 days from the date on the request, or a longer time period specified in the request. If the general licensee cannot provide the requested information within the specified time period, the general licensee shall request a longer period to supply the information before expiration of the time period, providing the Agency with a written justification for the request.

n. Appoint an individual responsible for knowledge of applicable laws and possessing the authority to take actions required to comply with applicable radiation safety laws. The general licensee, through this individual, shall ensure the day-to-day compliance with applicable radiation safety laws. This provision does not relieve the general licensee of responsibility.

o. Register, in accordance with subsections (B)(4)(p) and (q), any device that contains at least 370 megabecquerels (10 millicuries) of cesium-137, 3.7 megabecquerels (0.1 millicuries) of strontium-90, 37 megabecquerels (1 millicurie) of cobalt-60, or 37 megabecquerels (1 millicurie) of americium-241 or any other transuranic (i.e., element with atomic number greater than

uranium (92)), based on the activity indicated on the label. Each address for a location of use, as described under subsection (B)(4)(q)(iv), represents a separate general licensee and requires a separate registration and fee.

p. Register each device annually with the Agency and pay the fee required by R12-1-1306, Category D4, if in possession of a device that meets the criteria in subsection (B)(4)(o). The general licensee shall register by verifying, correcting, and adding to the information provided in a request for registration received from the Agency. The registration information shall be submitted to the Agency within 30 days from the date on the request for registration. In addition, a general licensee holding devices meeting the criteria of subsection (B)(4)(o) is subject to the bankruptcy notification requirements in R12-1-313(D).

q. In registering a device, furnish the following information and any other registration information specifically requested by the Agency:

i. Name and mailing address of the general licensee;

ii. Information about each device, including the manufacturer (or initial transferor), model number, serial number, radioisotope, and activity (as indicated on the label);

iii. Name, title, and telephone number of the responsible individual appointed by the general licensee under subsection (B)(4)(n);

iv. Address or location at which each device is used and stored. For a portable device, the address of the primary place of storage;

v. Certification by the responsible individual that the information concerning each device has been verified through a physical inventory and review of label information; and

vi. Certification by the responsible individual that the individual is aware of the requirements of the general license.

r. Report a change in mailing address for the location of use or a change in the name of the general licensee to the Agency within 30 days of the effective date of the change. For a portable device, a report of address change is only required for a change in the device's primary place of storage.

s. Not use a device if the device has not been used for a period of two years. If a device with shutters is not being used, the general licensee shall ensure that the shutters are locked in the closed position. The testing required by subsection (B)(4)(b) need not be performed during a period of storage. However, if a device is put back into service or transferred to another person, and has not been tested during the required test interval, the general licensee shall ensure that the device is tested for leakage before use or transfer and that the shutter is tested before use. A device kept in standby for future use is excluded from the two-year time limit in this subsection if the general licensee performs a quarterly physical inventory regarding the standby devices.

5. A person that is generally licensed by an Agreement State with respect to a device that meets the criteria in subsection (B)(4)(o) is exempt from registration requirements if the device is used in an area subject to Agency jurisdiction for a period less than 180 days in any calendar year. The Agency does not request registration information from a general licensee if the device is exempted from licensing requirements in subsection (B)(4)(o).

6. The general license granted under subsection (B)(1) is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15, and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689.

7. The general license in subsection (B)(1) of this Section does not authorize the manufacture or import of devices containing byproduct material.

C. Luminous safety devices for aircraft

1. This subsection grants a general license that authorizes a person to own, receive, acquire, possess, and use tritium or promethium-147 contained in luminous safety devices for use in aircraft, provided that each device contains not more than 370 gigabecquerels (10 curies) of tritium or 11.1 gigabecquerels (300 millicuries) of promethium-147; and each device has been manufactured, assembled, initially transferred, or imported according to a specific license issued by the U.S. Nuclear Regulatory Commission, or each device has been manufactured or assembled according to the specifications contained in a specific license issued to the manufacturer or assembler of the device by the Agency or any Agreement State or Licensing State in accordance with licensing requirements equivalent to those in 10 CFR 32.53.

2. A person who owns, receives, acquires, possesses, or uses a luminous safety device according to the general license granted in subsection (C)(1) is:

a. Exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10 except that the person shall comply with the reporting and notification provisions of R12-1-443, R12-1-444, R12-1-445, R12-1-447, and R12-1-448;

b. Not authorized to manufacture, assemble, repair, or import a luminous safety device that contains tritium or promethium-147;

c. Not authorized to export luminous safety devices containing tritium or promethium-147;

d. Not authorized to own, receive, acquire, possess, or use radioactive material contained in instrument dials; and

e. Subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689.

D. This subsection grants a general license that authorizes a person who holds a specific license to own, receive, possess, use, and transfer radioactive material if the Agency issues the license; or special nuclear material if the NRC issues the license. For americium-241, radium-226, and plutonium contained in calibration or reference sources, this subsection grants a general license in accordance with the provisions of subsections (D)(1), (2), and (3). For plutonium, ownership is included in the licensed activities.

1. This subsection grants a general license for calibration or reference sources that have been manufactured according to the specifications contained in a specific license issued to the manufacturer or importer of the sources by the U.S. Nuclear Regulatory Commission under 10 CFR 32.57 or 10 CFR 70.39. This general license also governs calibration or reference sources that have been manufactured according to specifications contained in a specific license issued to the manufacturer by the Agency, an Agreement State, or a Licensing State, according to licensing requirements equivalent to those contained in 10 CFR 32.57 or 10

CFR 70.39, revised January 1, 2013, incorporated by reference, and available under R12-1-101. The incorporated material contains no future editions or amendments.

2. A general license granted under subsection (D) or (D)(1) is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 4, 10, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689. In addition, a person who owns, receives, acquires, possesses, uses, or transfers one or more calibration or reference sources under a general license granted under subsection (D) or (D)(1) shall:
   a. Not possess at any one time, at any location of storage or use, more than 185 kBq (5 microcuries) of americium-241, plutonium, or radium-226 in calibration or reference sources;
   b. Not receive, possess, use, or transfer a calibration or reference source unless the source, or the storage container, bears a label that includes one of the following statements, as applicable, or a substantially similar statement that contains the same information:
      i. The receipt, possession, use and transfer of this source, Model _____, Serial No. _____, are subject to a general license and the regulations of the U.S. Nuclear Regulatory Commission or a state with which the Commission has entered into an agreement for the exercise of regulatory authority. Do not remove this label.
      CAUTION – RADIOACTIVE MATERIAL – THIS SOURCE CONTAINS (name of the appropriate material) – DO NOT TOUCH RADIOACTIVE PORTION OF THIS SOURCE.

      _____
      Name of manufacturer or importer
      ii. The receipt, possession, use and transfer of this source, Model _____, Serial No. _____, are subject to a general license and the regulations of any Licensing State. Do not remove this label.
      CAUTION – RADIOACTIVE MATERIAL – THIS SOURCE CONTAINS RADIUM-226. DO NOT TOUCH RADIOACTIVE PORTION OF THIS SOURCE.

      _____
      Name of manufacturer or importer
   c. Not transfer, abandon, or dispose of a calibration or reference source except by transfer to a person authorized to receive the source by a license from the Agency, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State;
   d. Store a calibration or reference source, except when the source is being used, in a closed container designed, constructed, and approved for containment of americium-241, plutonium, or radium-226 which might otherwise escape during storage; and
   e. Not use a calibration or reference source for any purpose other than the calibration of radiation detectors or the standardization of other sources.
3. The general license granted under subsection (D) or (D)(1) does not authorize the manufacture or import of calibration or reference sources that contain americium-241, plutonium, or radium-226.
4. The general license granted under subsections (D) or (D)(1) does not authorize the manufacture or export of calibration or reference sources that contain americium-241, plutonium, or radium-226.

E. This subsection grants a general license that authorizes a person to receive, possess, use, transfer, own, or acquire carbon-14 urea capsules, which contain one microcurie of carbon-14 urea for "in vivo" human diagnostic use:
1. Except as provided in subsections (E)(2) and (3), a physician is exempt from the requirements for a specific license, provided that each carbon-14 urea capsule for "in vivo" diagnostic use contains no more than 1 microcurie.
2. A physician who desires to use the capsules for research involving human subjects shall obtain a specific license issued according to the specific licensing requirements in this Article.
3. A physician who desires to manufacture, prepare, process, produce, package, repackage, or transfer carbon-14 urea capsules for commercial distribution shall obtain a specific license from the Agency, issued according to the requirements in 10 CFR 32.21, (Revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

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4. Nothing in this subsection relieves physicians from complying with applicable FDA and other federal and state requirements governing receipt, administration, and use of drugs.

F. This subsection grants a general license that authorizes any physician, clinical laboratory, or hospital to use radioactive material for certain "in vitro" clinical or laboratory testing.
1. The general licensee is authorized to receive, acquire, possess, transfer, or use, for any of the following stated tests, the following radioactive materials in prepackaged units:
   a. Iodine-125, in units not exceeding 370 kilobecquerel (10 microcuries) each for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or radiation from such material, to human beings or animals.
   b. Iodine-131, in units not exceeding 370 kilobecquerel (10 microcuries) each for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
   c. Carbon-14, in units not exceeding 370 kilobecquerel (10 microcuries) each for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.

d. Hydrogen-3 (tritium), in units not exceeding 1.85 megabecquerel (50 microcuries) each for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
e. Iron-59, in units not exceeding 740 kilobecquerel (20 microcuries) each for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
f. Cobalt-57 or selenium-75, in units not exceeding 370 kilobecquerels (10 microcuries) each for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.
g. Mock iodine-125 reference or calibration sources, in units not exceeding 1.85 kBq (50 nanocurie) of iodine-129 and 185 becquerel (5 nanocurie) of americium-241 each, for use in "in vitro" clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation from such material, to human beings or animals.

2. A person shall not acquire, receive, possess, use, or transfer radioactive material according to the general license established by this subsection until the person has filed with the Agency ARRA-9, "Certificate -- "In Vitro" Testing with Radioactive Material Under General License," provided the information listed in Exhibit E, and received a validated copy of ARRA-9, which indicates the assigned certification number. The physician, clinical laboratory, or hospital shall furnish on ARRA-9 the following information:
   a. Name, telephone number, and address of the physician, clinical laboratory, or hospital; and
   b. A statement that the physician, clinical laboratory, or hospital has radiation measuring instruments to carry out "in vitro" clinical or laboratory tests with radioactive material and that tests will be performed only by personnel competent to use the instruments and handle the radioactive material.
3. A person who receives, acquires, possesses, or uses radioactive material according to the general license granted under this subsection shall:
   a. Not possess at any one time, in storage or use, a combined total of not more than 7.4 megabecquerels (200 microcuries) of iodine-125, iodine-131, iron-59, cobalt-57, or selenium-75 in excess of 7.4 megabecquerels (200 microcuries), or acquire or use in any one calendar month more than 18.5 megabecquerels (500 microcuries) of these radionuclides.
   b. Store the radioactive material, until used, in the original shipping container or in a container that provides equivalent radiation protection.
   c. Use the radioactive material only for the uses authorized by subsection (F).
   d. Not transfer radioactive material to a person who is not authorized to receive it according to a license issued by the Agency, the U.S. Nuclear Regulatory Commission, or any Agreement State or Licensing State, or in any manner other than in an unopened, labeled shipping container received from the supplier.
   e. Not dispose of a mock iodine-125 reference or calibration source described subsection (F)(1) except as authorized by R12-1-434.
   f. Package or prepackage a unit bearing a durable, clearly visible label: identifying the radioactive contents as to chemical form and radionuclide, and indicating that the amount of radioactivity does not exceed 0.37 megabecquerel (10 microcuries) of iodine-131, iodine-125, selenium-75, or carbon-14; 1.85 megabecquerels (50 microcuries) of hydrogen-3 (tritium); or 0.74 megabecquerel (20 microcuries) of iron-59; or Mock Iodine-125 in units not exceeding 1.85 kilobecquerels (0.05 microcurie) of iodine-129 and 0.185 kilobecquerel (0.005 microcurie) of americium-241 each; or cobalt-57 in units not exceeding 0.37 megabecquerel (10 microcuries).
   g. Package to display the radiation caution symbol and the words, "Caution, Radioactive Material", and "Not for Internal or External Use in Humans or Animals."
4. The general licensee shall not receive, acquire, possess, transfer, or use radioactive material according to subsection (F)(1):
   a. Except as prepackaged units that are labeled according to the provisions of a specific license issued by the U.S. Nuclear Regulatory Commission, or any Agreement State that authorizes the manufacture and distribution of iodine-125, iodine-131, carbon-14, hydrogen-3 (tritium), iron-59, cobalt-57, selenium-75, or mock iodine-125 for distribution to persons generally licensed under subsection (F) or its equivalent federal law; and
   b. Unless one of the following statements, or a substantially similar statement that contains the same information, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure that accompanies the package:
      i. This radioactive material may be acquired, received, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from such material, to human beings or animals. The acquisition, receipt, possession, use, and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the Commission has entered into an agreement for the exercise of regulatory authority.

         _____
         Name of manufacturer
      ii. This radioactive material shall be acquired, received, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from such material, to human beings or animals. The receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of a Licensing State.

         _____
         Name of manufacturer

5. A physician, clinical laboratory or hospital that possesses or uses radioactive material under a general license granted by subsection (F):
   a. Shall report to the Agency in writing, any change in the information furnished on the ARRA-9. The report shall be furnished within 30 days after the effective date of the change; and
   b. Is exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10 with respect to radioactive material covered by the general license, except that a person using mock iodine-125 sources, described in subsection (F)(1)(g), shall comply with the provisions of R12-1-434, R12-1-443, and R12-1-444 of this Chapter.
6. For the purposes of subsection (F), a licensed veterinary care facility is considered a "clinical laboratory."

G. This subsection grants a general license that authorizes a person to own, receive, acquire, possess, use, and transfer strontium-90, contained in ice detection devices, provided each device contains not more than 1.85 megabecquerels (50 microcuries) of strontium-90 and each device has been manufactured or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission or each device has been manufactured according to the specifications contained in a specific license issued by the Agency or any Agreement State to the manufacturer of the device under licensing requirements equivalent to those in 10 CFR 32.61. A person who receives, owns, acquires, possesses, uses, or transfers strontium-90 contained in ice detection devices under a general license in accordance with subsection (G):

1. Shall, upon occurrence of visually observable damage, such as a bend or crack or discoloration from overheating, discontinue use of the device until it has been inspected, tested for leakage, and repaired by a person who holds a specific license from the U.S. Nuclear Regulatory Commission or an Agreement State to manufacture or service ice detection devices; or dispose of the device according to the provisions of R12-1-434;
2. Shall assure that each label, affixed to the device at the time of receipt, which bears a statement that prohibits removal of the labels, maintained on the device; and
3. Is exempt from the requirements of 12 A.A.C. 1, Article 4 and Article 10, except that the user of an ice detection device shall comply with the provisions of R12-1-434, R12-1-443 and R12-1-444.
4. Shall not manufacture, assemble, disassemble, repair, or import an ice detection device that contains strontium-90.
5. Is subject to the provisions of 12 A.A.C. 1, Articles 1, 3, 12, and 15, and A.R.S. §§ 30-654(B), 30-657(A) and (B), 30-681, and 30-685 through 30-689.

H. This subsection grants a general license that authorizes a person to acquire, receive, possess, use, or transfer, in accordance with the provisions of subsections (I) and (J), radium-226 contained in the following products manufactured prior to November 30, 2007.

1. Antiquities originally intended for use by the general public. For the purposes of this paragraph, antiquities mean products originally intended for use by the general public and distributed in the late 19th and early 20th centuries, such as radium emanator jars, revigators, radium water jars, radon generators, refrigerator cards, radium bath salts, and healing pads.
2. Intact timepieces containing greater than 0.037 megabecquerel (1 microcurie), nonintact timepieces, and timepiece hands and dials no longer installed in timepieces.
3. Luminous items installed in air, marine, or land vehicles.
4. All other luminous products, provided that no more than 100 items are used or stored at the same location at any one time.
5. Small radium sources containing no more than 0.037 megabecquerel (1 microcurie) of radium-226. For the purposes of this paragraph, "small radium sources" means discrete survey instrument check sources, sources contained in radiation measuring instruments, sources used in educational demonstrations (such as cloud chambers and spinthariscopes), electron tubes, lightning rods, ionization sources, static eliminators, or as designated by the NRC.

I. Persons who acquire, receive, possess, use, or transfer byproduct material under the general license issued in subsection (H) are exempt from the provisions 12 A.A.C. 1, Articles 1, 3, 4, 7, 10, 12, and 15 and A.R.S. §§ 30-654(B)(13), 30-657(A) and (B), 30-681, and 30-685 through 30-689, to the extent that the receipt, possession, use, or transfer of byproduct material is within the terms of the general license; provided, however, that this exemption shall not be deemed to apply to any such person specifically licensed under this chapter. Any person who acquires, receives, possesses, uses, or transfers byproduct material in accordance with the general license in subsection (H):

1. Shall notify the Agency should there be any indication of possible damage to the product so that it appears it could result in a loss of the radioactive material. A report containing a brief description of the event, and the remedial action taken, must be furnished to the Agency within 30 days.
2. Shall not abandon products containing radium-226. The product, and any radioactive material from the product, may only be disposed of according to Article 4 or by transfer to a person authorized by a specific license to receive the radium-226 in the product or as otherwise approved by the Agency.
3. Shall not export products containing radium-226 except in accordance with 10 CFR 110 revised January 1, 2013, incorporated by reference, and available under R12-1-101. The incorporated material contains no future editions or amendments.
4. Shall dispose of products containing radium-226 at a disposal facility authorized to dispose of radioactive material in accordance with any federal or state solid or hazardous waste law, including the Solid Waste Disposal Act, as authorized under the Energy Policy Act of 2005, by transfer to a person authorized to receive radium-226 by a specific license issued under Article 3, equivalent regulations of an Agreement State, or the NRC.
5. Shall respond to written requests from the Agency to provide information relating to the general license within 30 calendar days of the date of the request, or other time specified in the request. If the general licensee cannot provide the requested information within the allotted time, it shall, within that same time period, request a longer period to supply the information by providing the Agency Director a written justification for the request.

J. The general license in subsection (H) does not authorize the manufacture, assembly, disassembly, repair, or import of products containing radium-226, except that timepieces may be disassembled and repaired.

Radiation Regulatory Agency

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-306 renumbered to R12-1-307, new Section R12-1-306 renumbered from R12-1-305 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-306 renumbered to R12-1-305; new Section R12-1-306 renumbered from R12-1-307 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-307. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Repealed effective December 20, 1985 (Supp. 85-6). Former Section R12-1-307 renumbered to R12-1-308, new Section R12-1-307 renumbered from R12-1-306 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-307 renumbered to R12-1-306; new Section R12-1-307 renumbered from R12-1-308 and repealed by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-308. Filing Application for Specific Licenses

A. An applicant for a specific license shall file an Agency application. The applicant shall prepare the application in duplicate, one copy for the Agency and the other for the applicant.

B. The Agency may at any time after the filing of the original application, and before the expiration of the license, require further statements in order to enable the Agency to determine whether the application should be granted or denied or whether a license should be modified or revoked.

C. Each application shall contain the information specified in Exhibit (E) of this Article and be signed by the applicant, licensee, or person duly authorized to act for the applicant or licensee.

D. Unless R12-1-1302 precludes combination with a license of another category, an application for a specific license may include a request for a license that authorizes more than one activity.

E. In the application, the applicant may incorporate by reference information contained in previous applications, statements, or reports filed with the Agency provided the references are clear and specific.

F. The Agency shall make applications and documents submitted to the Agency available for public inspection, but may withhold any document or part of a document from public inspection if disclosure of its content is not required in the public interest and would adversely affect the interest of a person concerned.

G. Except as provided in subsections (G)(1), (2), and (3), an application for a specific license to use byproduct material in the form of a sealed source or in a device that contains the sealed source must either identify the source or device by manufacturer and model number as registered with the Agency, NRC, or with an Agreement State, or, for a source or a device containing radium-226 or accelerator-produced radioactive material, with the Agency, NRC, or an Agreement State under 10 CFR 32.210(c) revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

1. For sources or devices manufactured before October 23, 2012, that are not licensed under R12-1-306, R12-1-310, R12-1-311 or registered with the NRC or with an Agreement State, and for which the applicant is unable to provide all categories of information specified in 10 CFR 32.210(c) the application must include:
   a. All available information identified in 10 CFR 32.210(c) concerning the source, and, if applicable, the device; and
   b. Sufficient additional information to demonstrate that there is reasonable assurance that the radiation safety properties of the source or device are adequate to protect health and minimize danger to life and property. Such information must include a description of the source or device, a description of radiation safety features, the intended use and associated operating experience, and the results of a recent leak test.
2. For sealed sources and devices allowed to be distributed without registration of safety information, the applicant may supply only the manufacturer, model number, and radionuclide and quantity.
3. If it is not feasible to identify each sealed source and device individually, the applicant may propose constraints on the number and type of sealed sources and devices to be used and the conditions under which they will be used, in lieu of identifying each sealed source and device.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-308 renumbered to R12-1-309, new Section R12-1-308 renumbered from R12-1-307 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-308 renumbered to R12-1-307; new Section R12-1-308 renumbered from R12-1-309 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-309. General Requirements for Issuance of Specific Licenses

A license application shall be approved if the Agency determines that:

1. The applicant is qualified by reason of training and experience to use the material in question for the purpose requested according to these rules, in a manner that will minimize danger to public health and safety or property;
2. The applicant's proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or property;
3. The issuance of the license will not be inimical to the health and safety of the public;

4. The applicant satisfies all applicable special requirements in R12-1-310, R12-1-311, R12-1-322, R12-1-323, 12 A.A.C. 1, Articles 5, 7, and 17; and
5. The applicant demonstrates that a letter has been sent, return receipt requested, to the Mayor's office of the city, town, or, if not within an incorporated community, to the County Board of Supervisors of the county in which the applicant proposes to operate which describes:
   a. The nature of the proposed activity involving radioactive material; and
   b. The facility, including use and storage areas.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-309 re-numbered to R12-1-310, new Section R12-1-309 renumbered from R12-1-308 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-309 renumbered to R12-1-308; new Section R12-1-309 renumbered from R12-1-310 and amended by final rule-making at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-310. Special Requirements for Issuance of Specific Broad Scope Licenses

A. The Agency shall issue three classes of academic and industrial broad scope licenses, and only a single class A medical broad scope license.
1. The license may authorize the radioactive materials in multi-curie quantities, and may authorize other radioactive materials and forms in addition to those listed in subsection (A)(1)(a). A license is a broad scope class A license if it:
   a. Contains the exact wording "Any radioactive material with Atomic Number 3 through 83" or "Any radioactive material with Atomic Number 84 through 92" in License Item 6; and
   b. Contains the word "any" to authorize the chemical or physical form of the materials in License Item 7;
2. A broad scope class B license is any specific license which authorizes the acquisition, possession, use, and transfer of the radioactive materials specified in Exhibit C of 12 A.A.C. 1, Article 3 in any chemical or physical form and in quantities determined as follows:
   a. The possession limit, if only one radionuclide is possessed, is the quantity specified for that radionuclide in Exhibit C, Column I; or
   b. The possession limit for multiple radionuclides is determined as follows: The sum of the ratios for all radionuclides possessed under the license shall not exceed unity (1). The ratio for each radionuclide is determined by dividing the quantity possessed by the applicable quantity in Exhibit C, Column I.
3. A broad scope class C license is any specific license authorizing the possession and use of the radioactive materials specified in Exhibit C of 12 A.A.C. 1, Article 3 in any chemical or physical form and in quantities determined as follows:
   a. The possession limit, if only one radionuclide is possessed, is the quantity specified for that radionuclide in Exhibit C, Column II; or
   b. The possession limit for multiple radionuclides is determined as follows: The sum of the ratios for all radionuclides possessed under the license shall not exceed unity (1). The ratio for each radionuclide is determined by dividing the quantity possessed by the applicable quantity in Exhibit C, Column II.

B. The Agency shall approve:
1. An application for a class A broad scope license if:
   a. The applicant satisfies the general requirements specified in R12-1-309;
   b. The applicant has engaged in a reasonable number of activities involving the use of radioactive material. For purposes of this subsection, the requirement of "reasonable number of activities" can be satisfied by showing that the applicant has five years of experience in the use of radioactive material. The Agency may accept less than five years of experience if the applicant's qualifications are adequate for the scope of the proposed license; and
   c. The applicant has established administrative controls and provisions relating to organization, management, procedures, recordkeeping, material control, accounting, and management review that are necessary to assure safe operations, including:
      i. Establishment of a radiation safety committee composed of a radiation safety officer, a representative of management, and persons trained and experienced in the safe use of radioactive material;
      ii. Appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and
      iii. Establishment of appropriate administrative procedures to assure:
         (1) Control of procurement and use of radioactive material;
         (2) Completion of safety evaluations of proposed uses of radioactive material which take into consideration matters such as the adequacy of facilities and equipment, training and experience of the user, and operating or handling procedures; and
         (3) Review, approval, and recording by the radiation safety committee of safety evaluations of proposed uses prepared in accordance with this subsection prior to use of the radioactive material.
2. An application for a class B broad scope license if:
   a. The applicant satisfies the general requirements specified in R12-1-309; and
   b. The applicant has established administrative controls and provisions relating to organization, management, procedures, recordkeeping, material control, accounting, and management review that are necessary to assure safe operations, including:

i. Appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and available for advice and assistance on radiation safety matters; and
ii. Establishment of appropriate administrative procedures to assure:
(1) Control of procurement and use of radioactive material;
(2) Completion of safety evaluations of proposed uses of radioactive material which take into consideration matters such as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures; and
(3) Review, approval, and recording by the radiation safety officer of safety evaluations of proposed uses prepared according to subsection (B)(2)(b)(ii) prior to use of the radioactive material.

3. An application for a class C broad scope license if:
a. The applicant satisfies the general requirements specified in R12-1-309; and
b. The applicant submits a statement that radioactive material will be used only by, or under the direct supervision of, individuals who have received:
i. A college degree at the bachelor level, or equivalent training and experience, in the physical or biological sciences or in engineering; and
ii. At least 40 hours of training and experience in the safe handling of radioactive material, the characteristics of ionizing radiation, units of dose and quantities, radiation detection instrumentation, and biological hazards of exposure to radiation appropriate to the type and forms of radioactive material to be used; and
c. The applicant has established administrative controls and provisions relating to procurement of radioactive material, procedures, recordkeeping, material control and accounting, and management review necessary to assure safe operations.

C. Unless specifically authorized, broad-scope licensees shall not:
1. Conduct tracer studies in the environment involving direct release of radioactive material;
2. Acquire, receive, possess, use, own, import, or transfer devices containing 3.7 petabecquerels (100,000 curies) or more of radioactive material in sealed sources used for irradiation of materials;
3. Conduct activities for which a specific license is issued under R12-1-311, and 12 A.A.C. 1, Articles 5, 7, or 17; or
4. Add or cause the addition of radioactive material to any food, beverage, cosmetic, drug, or other product designed for ingestion or inhalation by, or application to, a human being.

D. Radioactive material possessed under the class A broad scope license shall only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety committee.

E. Radioactive material possessed under the class B broad scope license shall only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety officer.

F. Radioactive material possessed under the class C broad scope license shall only be used by, or under the direct supervision of, individuals who satisfy the requirements of R12-1-310(B)(3)(b).

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended effective November 5, 1993 (Supp. 93-4). Former Section R12-1-310 renumbered to R12-1-311, new Section R12-1-310 renumbered from R12-1-309 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-310 renumbered to R12-1-309; new Section R12-1-310 renumbered from R12-1-311 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3).

R12-1-311. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices that Contain Radioactive Material

A. Licensing the manufacture and distribution of devices to persons generally licensed under R12-1-306(B).
1. The Agency shall grant a specific license to manufacture or distribute each device that contains radioactive material, excluding special nuclear material, to persons generally licensed under R12-1-306(B) or equivalent regulations of the U.S. NRC, an Agreement State, or the Licensing State if:
a. The applicant satisfies the requirements of R12-1-309;
b. The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control, labels, proposed uses, installation, servicing, leak testing, operating and safety instructions, and potential hazards of the device to provide reasonable assurance that:
i. The device can be safely operated by persons not having training in radiological protection;
ii. Under ordinary conditions of handling, storage, and use of the device, the radioactive material contained in the device will not be released or inadvertently removed from the device, and it is unlikely that any person will receive a dose in excess of 10 percent of the limits specified in R12-1-408; and
iii. Under accident conditions (such as fire and explosion) associated with handling, storage, and use of the device, it is unlikely that any person would receive an external radiation dose or dose commitment in excess of the following organ doses:
(1) Whole body; head and trunk; active blood-forming organs; gonads; or lens of eye: 150 mSv (15 rem)
(2) Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than 1 square centimeter; 2 Sv (200 rem)
(3) Other organs: 500 mSv (50 rem)

c. Each device bears a durable, legible, clearly visible label or labels that contain in a clearly identified and separate statement:
   i. Instructions and precautions necessary to assure safe installation, operating, and servicing of the device (documents such as operating and service manuals may be identified in the label and used to provide this information);
   ii. The requirement, or lack of requirement, for leak testing, or for testing any on-off mechanism and indicator, including the maximum time interval for the testing, and the identification of radioactive material by isotope, quantity of radioactivity, and date of determination of the quantity; and
   iii. The information called for in one of the following statements in the same or substantially similar form:
   The receipt, possession, use, and transfer of this device, Model _____, Serial No. _____, are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or a state with which the Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.
   CAUTION – RADIOACTIVE MATERIAL
   _____
   (name of manufacturer or distributor)
   The receipt, possession, use and transfer of this device, Model _____, Serial No. _____, are subject to a general license or the equivalent, and the regulations of a Licensing State. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.
   CAUTION – RADIOACTIVE MATERIAL
   _____
   (name of manufacturer or distributor)
d. The model, serial number, and name of manufacturer or distributor may be omitted from the label if the information location is specified in labeling affixed to the device;
e. Each device with a separable source housing that provides the primary shielding for the source also bears, on the source housing, a durable label that provides the device model number and serial number, the isotope and quantity, the words, "Caution-Radioactive Material," the radiation symbol described in R12-1-428, and the name of the manufacturer or initial distributor; and
f. Each device meets the criteria in 10 CFR 31.5(c)(13)(i) (revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments) and bears a permanent (e.g., embossed, etched, stamped, or engraved) label affixed to the source housing, if separable, or the device if the source housing is not separable, that includes the words, "Caution-Radioactive Material," and, if practicable, the radiation symbol described in R12-1-428.

2. In the event the applicant desires that the device undergo mandatory testing at intervals longer than six months, either for proper operation of the on-off mechanism and indicator, if any, or for leakage of radioactive material or for both, the application shall contain sufficient information to demonstrate that the longer interval is justified by performance characteristics of the device or similar devices and by design features which have a significant bearing on the probability or consequences of leakage of radioactive material from the device or failure of the on-off mechanism and indicator. In determining the acceptable interval for the test for leakage of radioactive material, the Agency shall consider information which includes, but is not limited to:
   a. Primary containment (source capsule),
   b. Protection of primary containment,
   c. Method of sealing containment,
   d. Containment construction materials,
   e. Form of contained radioactive material,
   f. Maximum temperature withstood during prototype tests,
   g. Maximum pressure withstood during prototype tests,
   h. Maximum quantity of contained radioactive material,
   i. Radiotoxicity of contained radioactive material, and
   j. Operating experience with identical devices or similarly designed and constructed devices.
3. In the event the applicant desires that the general licensee under R12-1-306(B), or under equivalent regulations of the NRC or an Agreement State or Licensing State, be authorized to install the device, collect the sample to be analyzed by a specific licensee for leakage of radioactive material, service the device, test the on-off mechanism and indicator, or remove the device from installation, the application shall include written instructions to be followed by the general licensee, estimated calendar quarter doses associated with the activity or activities, and bases for the estimates. The submitted information shall demonstrate that performance of the activity or activities by an individual untrained in radiological protection, in addition to other handling, storage, and use of devices under the general license, is unlikely to cause that individual to receive a dose in excess of 10 percent of the limits specified in R12-1-408.
4. A licensee authorized under subsection (A) to distribute a device to a generally licensed person shall provide, if a device that contains radioactive material is to be transferred for use under the general license granted in R12-1-306(B), the name of each person that is licensed under R12-1-311(A) and the information specified in this subsection for each person to whom a device will be transferred. The licensee shall provide this information before the device may be transferred. In the case of transfer through another person, the licensee shall provide the listed information to the intended user before initial transfer to the other person.
   a. The licensee shall provide:
      i. A copy of the general license, issued under R12-1-306(B),

ii. A copy of R12-1-443 and R12-1-445,
iii. A list of the services that can only be performed by a specific licensee,
iv. Information on authorized disposal options, including estimated costs of disposal, and
v. A list of civil penalties for improper disposal.

b. The licensee shall:
i. Report on a quarterly basis to the responsible Agreement State or NRC all transfers of devices to persons for use under a general license in accordance with 10 CFR 32.52, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
ii. Maintain all information concerning transfers and receipts of devices that supports the reports required by subsection (A)(4)(b).
iii. Maintain records required by subsection (A)(4)(b) for a period of three years following the date of the recorded event.

5. If radioactive material is to be transferred in a device for use under an equivalent general license of the NRC or another Agreement State, each person that is licensed under R12-1-304(B) shall provide the information specified in this subsection to each person to whom a device will be transferred. The licensee shall provide this information before the device is transferred. In the case of transfer through another person, the licensee shall provide the listed information to the intended user before initial transfer to the other person. The licensee shall provide:
a. A copy of the Agreement State's requirements that are equivalent to R12-1-306(A) and (B), and A.R.S. §§ 30-657, R12-1-443, and R12-1-445. If a copy of NRC regulations is provided to a prospective general licensee in lieu of the Agreement State's requirements, the licensee shall explain in writing that use of the device is regulated by the Agreement State. If certain requirements do not apply to a particular device, the licensee may omit the requirement from the material provided;
b. A list of the services that can only be performed by a specific licensee;
c. Information on authorized disposal options, including estimated costs of disposal; and
d. The name, title, address, and telephone number of the individual at the Agreement State regulatory agency who can provide additional information.
6. A licensee may propose to the Agency an alternate method of informing the customer.
7. If a licensee has notified the Agency of bankruptcy under R12-1-313(E) or is terminating under R12-1-319, the licensee shall provide, upon request, to the Agency, the NRC, or another Agreement State, records of the disposition as required under A.R.S. § 30-657.
8. A licensee authorized to transfer a device to a generally licensed person, shall comply with the following requirements:
a. The person licensed under subsection (A) shall report all transfers of devices to persons for use under a general license obtained under R12-1-306(B), and all receipts of devices from persons licensed under R12-1-306(B) to the Agency, NRC, or other affected Agreement State. The report shall be submitted on a quarterly basis, in a clear and legible form, and contain the following information:
i. The identity of each general licensee by name and mailing address for the location of use. If there is no mailing address for the location of use, the person licensed under subsection (A) shall submit an alternate address for the general licensee, along with information on the actual location of use;
ii. The name, title, and telephone number of a person identified by the general licensee as having knowledge of and authority to take required actions to ensure compliance with the applicable laws;
iii. The date of transfer;
iv. The type, model number, and serial number of the device transferred; and
v. The quantity and type of radioactive material contained in the device.
b. If one or more intermediaries will temporarily possess the device at the intended place of use before its possession by the intended user, the report shall include the information required of the general licensee in subsection (A)(4) for both the intended user and each intermediary, clearly identifying the intended user and each intermediary.
c. For devices received from a general licensee, licensed under R12-1-306(B), the report shall include:
i. The identity of the general licensee by name and address;
ii. The type, model number, and serial number of the device received;
iii. The date of receipt; and
iv. In the case of a device not initially transferred by the reporting licensee, the name of the manufacturer or initial transferor.
d. If the person licensed under subsection (A) makes a change to a device possessed by a general licensee so that the label must be changed to update required information, the report shall identify the general licensee, the device, and the changes to information on the device label.
e. The report shall cover a calendar quarter, be filed within 30 days of the end of each calendar quarter, and clearly indicate the period covered by the report.
f. The report shall clearly identify the person licensed under subsection (A) submitting the report and include the license number of the license.
g. If no transfers are made to or from persons generally licensed under R12-1-306(B) during a reporting period, the person licensed under subsection (A) shall submit a report indicating the lack of activity.
9. The licensee shall maintain records of all transfers for Agency inspection. Records shall be maintained for three years after termination of the license to manufacture the generally licensed devices regulated under R12-1-306(B).

B. The Agency shall grant a specific license to manufacture, assemble, repair, or initially transfer luminous safety devices that contain tritium or promethium-147 for use in aircraft, for distribution to persons generally licensed under R12-1-306(C), if the applicant satisfies:
1. The general requirements specified in R12-1-309; and
2. The requirements of 10 CFR 32.53 through 32.56 revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. The Agency shall grant a specific license to manufacture or initially transfer calibration or reference sources that contain americium-241, radium-226, or plutonium for distribution to persons generally licensed under R12-1-306(D) if the applicant satisfies:
1. The general requirements of R12-1-309; and
2. The requirements of 10 CFR 32.57, 32.58, 32.59, and 70.39, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

D. The Agency shall grant a specific license to distribute radioactive material for use by a physician under the general license in R12-1-306(E) if:
1. The applicant submits evidence that the radioactive material is to be manufactured, labeled, and packaged under a new drug application that the Commissioner of Food and Drugs, U.S. Food and Drug Administration has approved, or according to a license for a biologic product issued by the FDA; and
2. One of the following statements, or a substantially similar statement that contains the information called for in the following statements, appears on the label affixed to the container or appears in the leaflet or brochure that accompanies the package:
   a. This radioactive drug may be received, possessed, and used only by physicians licensed to dispense drugs in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and general license or its equivalent of the U.S. Nuclear Regulatory Commission or of a state with which the Commission has entered into agreement for the exercise of regulatory authority.

      _____
      Name of Manufacturer
   b. This radioactive drug may be received, possessed, and used only by physicians licensed (to dispense drugs) in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and a general license or its equivalent of a Licensing State.

      _____
      Name of Manufacturer

E. The Agency shall grant for a specific license to manufacture or distribute radioactive material for use under the general license of R12-1-306(F) if:
1. The applicant satisfies the general requirements specified in R12-1-309.
2. The radioactive material is to be prepared for distribution in prepackaged units of:
   a. Iodine-125 in units not exceeding 370 kBq (10 microcuries) each;
   b. Iodine-131 in units not exceeding 370 kBq (10 microcuries) each;
   c. Carbon-14 in units not exceeding 370 kBq (10 microcuries) each;
   d. Hydrogen-3 (tritium) in units not exceeding 1.85 MBq (50 microcuries) each;
   e. Iron-59 in units not exceeding 740 kBq (20 microcuries) each;
   f. Cobalt-57 or selenium-75 in units not exceeding 370 kilobecquerels (10 microcuries) each;
   g. Mock iodine-125 in units not exceeding 1.85 kBq (50 nanocuries) of iodine-129 and 185 Bq (5 nanocuries) of americium-241 each.
3. Each prepackaged unit bears a durable, clearly visible label:
   a. Identifying the radioactive contents as to chemical form and radionuclide and indicating that the amount of radioactivity does not exceed 370 kilobecquerels (10 microcuries) of iodine-125, iodine-131, cobalt-57, selenium-75, or carbon-14; 1.85 megabecquerels (50 microcuries) of hydrogen-3 (tritium); 740 kilobecquerels (20 microcuries) of iron-59; or mock iodine-125 in units not exceeding 1.85 kilobecquerels (0.05 microcurie) of iodine-129 and 185 becquerels (0.005 microcurie) of americium-241 each; and
   b. Displaying the radiation caution symbol described in R12-1-428, the words, "CAUTION, RADIOACTIVE MATERIAL," and the phrase "Not for Internal or External Use in Humans or Animals."
4. One of the following statements, or a substantially similar statement that contains the information called for in the following statements appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure that accompanies the package:
   a. This radioactive material may be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from the radioactive material, to human beings or animals. Its receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the Commission has entered into an agreement for the exercise of regulatory authority.

      _____
      Name of Manufacturer
   b. This radioactive drug may be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation from the radioactive material, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of a Licensing State.

_____
Name of Manufacturer

5. The label affixed to the unit, or the leaflet or brochure that accompanies the package, contains adequate information about the precautions to be observed in handling and storing the specified radioactive material. In the case of the mock iodine-125 reference or calibration source, the information accompanying the source must also contain directions to the licensee regarding the waste disposal requirements set out in R12-1-434.

F. The Agency shall grant for a specific license to manufacture and distribute ice detection devices to persons generally licensed under R12-1-306(G) if the applicant satisfies:
1. The general requirements of R12-1-309; and
2. The criteria of 10 CFR 32.61 and 32.62, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

G. The Agency shall grant a specific license to manufacture, prepare, or transfer for commercial distribution radioactive drugs that contain radioactive material for use by a person authorized in accordance with Article 7 of this Chapter, if the applicant meets all of the requirements in 10 CFR 30.32(j) or 10 CFR 32.72, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
1. Authorization under this Section to produce Positron Emission Tomography (PET) radioactive drugs for noncommercial transfer to medical use licensees in its consortium does not relieve the licensee from complying with applicable FDA, other federal, and state requirements governing radioactive drugs.
2. Each licensee authorized under this Section to produce PET radioactive drugs for noncommercial transfer to medical use licensees in its consortium shall:
   a. Satisfy the labeling requirements in R12-1-431 for each PET radioactive drug transport radiation shield and each syringe, vial, or other container used to hold a PET radioactive drug intended for noncommercial distribution to members of its consortium.
   b. Possess and use instrumentation to measure the radioactivity of the PET radioactive drugs intended for noncommercial distribution to members of its consortium and meet the procedural, radioactivity measurement, instrument test, instrument check, and instrument adjustment requirements in R12-1-449.
3. A licensee that is a pharmacy authorized under this Section to produce PET radioactive drugs for noncommercial transfer to medical use licensees in its consortium shall require that any individual who prepares PET radioactive drugs be an:
   a. Authorized nuclear pharmacist that meets the requirements in § R12-1-712, or
   b. Individual under the supervision of an authorized nuclear pharmacist as specified in R12-1-706.
4. A pharmacy, authorized under this Section to produce PET radioactive drugs for noncommercial transfer to medical use licensees in its consortium that allows an individual to work as an authorized nuclear pharmacist, shall meet the requirements of R12-1-712.

H. The Agency shall grant a specific license to manufacture and distribute generators or reagent kits that contain radioactive material for preparation of radiopharmaceuticals by persons licensed according to 12 A.A.C. 1, Article 7 if:
1. The applicant satisfies the general requirements of R12-1-309;
2. The applicant submits evidence that:
   a. The generator or reagent kit is to be manufactured, labeled and packaged according to the Federal Food, Drug, and Cosmetic Act or the Public Health Service Act, a new drug application (NDA) approved by the Food and Drug Administration (FDA), a biologic product license issued by FDA, or a "Notice of Claimed Investigational Exemption for a New Drug" (IND) that has been accepted by the FDA; or
   b. The manufacture and distribution of the generator or reagent kit are not subject to the Federal Food, Drug, and Cosmetic Act and the Public Health Service Act.
3. The applicant submits information on the radionuclide; chemical and physical form, packaging including maximum activity per package, and shielding provided by the packaging of the radioactive material contained in the generator or reagent kit;
4. The label affixed to the generator or reagent kit contains information on the radionuclide, including quantity, and date of assay; and
5. The label affixed to the generator or reagent kit, or the leaflet or brochure that accompanies the generator or reagent kit, contains:
   a. Adequate information, from a radiation safety stand point, on the procedures to be followed and the equipment and shielding to be used in eluting the generator or processing radioactive material with the reagent kit; and
   b. A statement that this generator or reagent kit (as appropriate) is approved for use by persons licensed by the Agency under 12 A.A.C. 1, Article 7 or equivalent licenses of the U.S. Nuclear Regulatory Commission or an Agreement State or Licensing State. The labels, leaflets or brochures required by this subsection supplement the labeling required by FDA and they may be separate from or, with the approval of FDA, combined with the labeling required by FDA.

I. The Agency shall grant a specific license to manufacture and distribute sources and devices that contain radioactive material to a person licensed in accordance with Article 7 of this Chapter for use as a calibration, transmission, or reference source or for medical purposes, if the applicant meets all of the requirements in 10 CFR 32.74, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

J. Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass volume applications.
1. The Agency shall grant a specific license to manufacture industrial products and devices that contain depleted uranium for use under R12-1-305(C) or equivalent regulations of the U.S. Nuclear Regulatory Commission or an Agreement State if:
   a. The applicant satisfies the general requirements in R12-1-309;
   b. The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling or marking, proposed uses, and potential hazards of the industrial product or device to provide reasonable assurance

that possession, use, or transfer of the depleted uranium in the product or device is not likely to cause any individual to receive a radiation dose in excess of 10 percent of the limits specified in R12-1-408.

c. The applicant submits sufficient information regarding the industrial product or device and the presence of depleted uranium for a mass volume application in the product or device to provide reasonable assurance that unique benefits will accrue to the public because of the usefulness of the product or device.

2. In the case of an industrial product or device whose unique benefits are questionable, the Agency shall approve an application for a specific license under this subsection only if the product or device is found to combine a high degree of utility and low probability of uncontrolled disposal and dispersal of significant quantities of depleted uranium into the environment.
3. The Agency may deny any application for a specific license under this subsection if the end use or uses of the industrial product or device cannot be reasonably foreseen.
4. Each person licensed under subsection (J)(1) shall:
   a. Maintain the level of quality control required by the license in the manufacture of the industrial product or device and the installation of the depleted uranium into the product or device;
   b. Label or mark each unit to:
      i. Identify the manufacturer of the product or device, the number of the license under which the product or device was manufactured or initially transferred, the fact that the product or device contains depleted uranium, and the quantity of depleted uranium in each product or device; and
      ii. State that the receipt, possession, use, and transfer of the product or device are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or an Agreement State;
   c. Assure that the depleted uranium, before being installed in each product or device, has been impressed with the following legend, clearly legible through any plating or other covering: "Depleted Uranium";
   d. Furnish a copy of the general license contained in R12-1-305(C) and a copy of ARRA-23 to each person to whom depleted uranium in a product or device is transferred for use under a general license contained in R12-1-305(C); or
   e. Furnish a copy of the general license contained in the U.S. Nuclear Regulatory Commission's or Agreement State's regulation equivalent to R12-1-305(C) and a copy of the U.S. Nuclear Regulatory Commission's or Agreement State's certificate, or alternatively, furnish a copy of the general license contained in R12-1-305(C) and a copy of ARRA-23 to each person to whom depleted uranium in a product or device is transferred for use under a general license of the U.S. Nuclear Regulatory Commission or an Agreement State, with a document explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or an Agreement State under requirements substantially the same as those in R12-1-305(C);
   f. Report to the Agency all transfers of industrial products or devices to persons for use under the general license in R12-1-305(C). The report shall identify each general licensee by name and address, an individual by name or position who serves as the point of contact person for the general licensee, the type and model number of device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within 30 days after the end of each calendar quarter in which a product or device is transferred to the generally licensed person. If no transfers have been made to persons generally licensed under R12-1-305(C) during the reporting period, the report shall so indicate;
      i. Report to the U.S. Nuclear Regulatory Commission all transfers of industrial products or devices to persons for use under the U.S. Nuclear Regulatory Commission general license in 10 CFR 40.25; or
      ii. Report to the responsible state agency all transfers of devices manufactured and distributed under subsection (J)(4)(f) for use under a general license in that state's regulations equivalent to R12-1-305(C);
      iii. The report required in subsection (J)(4)(f)(i) or (ii) shall identify each general licensee by name and address, an individual by name or position who serves as the contact person for the general licensee, the type and model number of the device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within 30 days after the end of each calendar quarter in which a product or device is transferred to the generally licensed person;
      iv. If no transfers have been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission;
      v. If no transfers have been made to general licensees within a particular Agreement State during the reporting period, this information shall be reported to the responsible Agreement state agency; and
      vi. Keep records showing the name, address, and contact person for each general licensee to whom depleted uranium in industrial products or devices is transferred for use under a general license provided in R12-1-305(C) or equivalent regulations of the U.S. Nuclear Regulatory Commission or of an Agreement State. The records shall be maintained for a period of three years and show the date of each transfer, the quantity of depleted uranium in each product or device transferred, and compliance with the reporting requirements of this Section.

K. A licensee who manufactures nationally tracked sources, as defined in Article 4, shall:
1. Serialize the sources in accordance with 10 CFR 32.201, revised January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments; and
2. Report manufacturing activities in accordance with R12-1-454.

Historical Note

Former Rule Section C.101. Former Section R12-1-311 repealed, new Section R12-1-311 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-311 renumbered to R12-1-312, new Section R12-1-311 renumbered from R12-1-310 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-311 renumbered to R12-1-310; new Section R12-1-311 renumbered from R12-1-312 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by

final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-312. Issuance of Specific Licenses

A. Upon determination that a license application meets the requirements of the Act and Agency rules, the Agency shall grant a specific license that may contain conditions or limitations if the Agency has determined that additional requirements regarding the proposed activity will protect health and safety.

B. The Agency may incorporate in any license at the time of issuance, or thereafter by rule or order, additional requirements and conditions with respect to the licensee's receipt, possession, use, and transfer of radioactive material in order to:

1. Minimize danger to public health and safety or property;
2. Require reports and recordkeeping, and provide for inspections of activities under the license as may be necessary to protect health and safety; and
3. Prevent loss or theft of material subject to this Article.

C. The Agency may verify information contained in an application and secure additional information necessary to make a determination on issuance of a license and whether any special conditions should be attached to the license. The Agency may inspect the facility or location where radioactive materials would be possessed or used, and discuss details of the proposed possession or use of the radioactive materials with the applicant or representatives designated by the applicant.

Historical Note

Former Rule Section C.102; Former Section R12-1-312 repealed, new Section R12-1-312 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-312 renumbered to R12-1-313, new Section R12-1-312 renumbered from R12-1-311 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-312 renumbered to R12-1-311; new Section R12-1-312 renumbered from R12-1-313 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-313. Specific Terms and Conditions

A. Each license issued under this Article is subject to all provisions of A.R.S. Title 30, Chapter 4 and to all rules, regulations, and orders of the Agency.

B. A licensee shall not transfer, assign, or in any manner dispose of a license issued or granted under this Article or a right to possess or utilize radioactive material granted by any license issued under this Article unless the Agency finds that the transfer is consistent with the Agency's statutes and rules, and gives its consent in writing.

C. Each person licensed by the Agency under this Article shall confine the use and possession of the material licensed to the locations and purposes authorized in the license.

D. Each person licensed under this Section and each general licensee that is required to register under R12-1-306(B)(4)(o) shall notify the Agency in writing if the licensee decides to permanently discontinue any or all activities involving materials authorized under the license. A specific licensee or general licensee shall notify the Agency, in writing:

1. Immediately following the filing of a petition for bankruptcy under any Chapter of Title 11 of the United States Code if the petition for bankruptcy is by or against:
   a. The licensee;
   b. An entity (as defined in the bankruptcy code) controlling the licensee or listing the license or licensee as property of the estate; or
   c. An affiliate (as defined in the bankruptcy code) of the licensee.
2. Providing the following information:
   a. The bankruptcy court in which the petition for bankruptcy was filed, and
   b. The bankruptcy case title and number, and
   c. The date the petition was filed.

E. Each licensee preparing technetium-99m radiopharmaceuticals from molybdenum-99/technetium-99m generators or rubidium-82 from strontium-82/rubidium-82 generators shall test the generator eluates for molybdenum-99 breakthrough or strontium-82 and strontium-85 contamination, respectively, in accordance with R12-1-720. The licensee shall record the results of each test and retain each record for three years after the record is made.

Historical Note

Former Rule Section C.103; Former Section R12-1-313 repealed, new Section R12-1-313 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended effective June 20, 1990 (Supp. 90-2). Former Section R12-1-313 renumbered to R12-1-314, new Section R12-1-313 renumbered from R12-1-312 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-313 renumbered to R12-1-312; new Section R12-1-313 renumbered from R12-1-314 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-314. Expiration of License

Except as provided in R12-1-315(B), each specific license expires at the end of the day, in the month and year stated on the license.

Radiation Regulatory Agency

Historical Note

Former Rule Section C.104; Former Section R12-1-314 repealed, new Section R12-1-314 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-314 renumbered to R12-1-315, new Section R12-1-314 renumbered from R12-1-313 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-314 renumbered to R12-1-313; new Section R12-1-314 renumbered from R12-1-315 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-315. Renewal of License

A. An applicant shall file an application for renewal of a specific license according to R12-1-308.

B. If a licensee files a renewal application not less than 30 days before the license expiration date and the existing license and associated renewal application is in proper form, the existing license does not expire until a final renewal determination is made by the Agency.

Historical Note

Former Rule Section C.105; Former Section R12-1-315 repealed, new Section R12-1-315 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-315 renumbered to R12-1-316, new Section R12-1-315 renumbered from R12-1-314 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-315 renumbered to R12-1-314; new Section R12-1-315 renumbered from R12-1-316 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-316. Amendment of Licenses at Request of Licensee

An applicant shall file an application for amendment of a specific license by complying with R12-1-308 and specifying the grounds for the amendment.

Historical Note

Former Rule Section C.106; Former Section R12-1-316 repealed, new Section R12-1-316 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-316 renumbered to R12-1-317, new Section R12-1-316 renumbered from R12-1-315 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-316 renumbered to R12-1-315; new Section R12-1-316 renumbered from R12-1-317 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-317. ARRA Action on Applications to Renew or Amend

In considering an application by a licensee to renew or amend a specific license, the Agency shall apply the criteria set forth in R12-1-309, R12-1-310, or R12-1-311 as applicable.

Historical Note

Former Rule Section C.107; Former Section R12-1-317 repealed, new Section R12-1-317 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-317 renumbered to R12-1-318, new Section R12-1-317 renumbered from R12-1-316 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-317 renumbered to R12-1-316; new Section R12-1-317 renumbered from R12-1-318 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-318. Transfer of Radioactive Material

A. A licensee shall not transfer radioactive material except as authorized under this Section.

B. Except as otherwise provided in the license and subject to the provisions of subsections (C) and (D), any licensee may transfer radioactive material:

1. To the Agency; after receiving prior approval from the Agency;
2. To the Department of Energy;
3. To any person exempt from the rules in this Article to the extent permitted under the exemption;
4. To any person authorized to receive radioactive material under terms of a general license or its equivalent, or a specific license or equivalent licensing document, issued by the Agency, the U.S. Nuclear Regulatory Commission, or any Agreement State or Licensing State, or to any person otherwise authorized to receive radioactive material by the Federal Government or any agency of the Federal Government, the Agency, any Agreement State or Licensing State; or
5. As otherwise authorized by the Agency in writing.

C. Before transferring radioactive material to a specific licensee of the Agency, the U.S. Nuclear Regulatory Commission, or an Agreement State or Licensing State, or to a general licensee who is required to register with the Agency, the U.S. Nuclear Regulatory Commission, or an Agreement State or Licensing State prior to receipt of the radioactive material, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred.

D. The transferor shall use one or more of the following methods for the verification required by subsection (C):

1. The transferor shall possess, and read, a current copy of the transferee's specific license or registration certificate;
2. The transferor shall possess a written certification by the transferee that the transferee is authorized by license or registration certificate to receive the type, form, and quantity of radioactive material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date;
3. For emergency shipments the transferor shall accept oral certification by the transferee that the transferee is authorized by license or registration certificate to receive the type, form, and quantity of radioactive material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date; provided the oral certification is confirmed in writing within 10 days;

4. The transferor shall obtain information equivalent to that in subsection (D)(1) to (3) compiled by a reporting service from official records of the Agency, the U.S. Nuclear Regulatory Commission, or the licensing agency of an Agreement State or Licensing State regarding the identity of any licensee and the scope and expiration date of any license, registration, or certificate; or
5. When none of the methods of verification described in subsections (D)(1) to (4) are readily available or when a transferor desires to verify that information received by one of the above methods is correct or up-to-date, the transferor shall obtain and record confirmation from the Agency, the U.S. Nuclear Regulatory Commission, or the licensing agency of an Agreement State or Licensing State that the transferee is licensed to receive the radioactive material.

E. A transferor shall prepare and transport radioactive material as prescribed in the provisions of 12 A.A.C. 1, Article 15.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-318 renumbered to R12-1-319, new Section R12-1-318 renumbered from R12-1-317 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-318 renumbered to R12-1-317; new Section R12-1-318 renumbered from R12-1-319 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-319. Modification, Revocation, or Termination of a License

A. The terms and conditions of all licenses are subject to amendment, revision, or modification, and a license may be suspended or revoked by reason of amendments to the Agency's statutes or rules and orders issued by the Agency.

B. The Agency may revoke, suspend, or modify any license, in whole or in part, for any material false statement in the application; any omission or misstatement of fact required by statute, rule, or order, or because of conditions revealed by the application or any report, record, or inspection or other means that would cause the Agency to refuse to grant a license; or any violation of license terms and conditions, or the Agency's statutes, rules, or orders.

C. Except in cases of willfulness or those in which the public health, interest, or safety requires otherwise, the Agency shall not modify, suspend, or revoke a license unless, before the institution of proceedings, facts or conduct that may warrant action have been called to the attention of the licensee in writing and the licensee has been accorded an opportunity to demonstrate or achieve compliance.

D. The Agency may terminate a specific license upon a written request by the licensee that provides evidence the licensee has met the termination criteria in R12-1-451, R12-1-452, and the decommissioning requirements in R12-1-323.

E. Specific licenses, including expired licenses, continue in effect until terminated by written notice to the licensee, when the Agency determines that the licensee has:

1. Properly disposed of all radioactive material;
2. Made a reasonable effort to eliminate residual radioactive contamination, if present;
3. Performed an accurate radiation survey that demonstrates the premises are suitable for release in accordance with the criteria for decommissioning in R12-1-323;
4. Submitted other information that is sufficient to demonstrate that the premises are suitable for release in accordance with the criteria for decommissioning in R12-1-323.
5. Provided records to the Agency that detail the disposal of all radioactive material in unsealed form with a half-life greater than 120 days, and copies of the records required by 10 CFR 30.35(g), January 1, 2004, which is incorporated by reference and on file with the Agency. This incorporation by reference contains no future editions or amendments.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-319 renumbered to R12-1-320, new Section R12-1-319 renumbered from R12-1-318 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-319 renumbered to R12-1-318; new Section R12-1-319 renumbered from R12-1-320 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-320. Reciprocal Recognition of Licenses

A. This subsection grants a general license to perform specific licensed activities in Arizona for a period not to exceed 180 days in any calendar year to any person who holds a specific license from an Agreement State, where the licensee maintains an office for directing the licensed activity and retaining radiation safety records, is granted a general license to conduct the same activity involving the use of radioactive material from the U.S. Nuclear Regulatory Commission, Licensing State, or any Agreement State, provided that:

1. The license does not limit the activity to specific installations or locations;
2. Following the first notification, application, and payment of fees, the licensee shall notify the agency three days prior to entering the state and prior to each non-consecutive visit while reciprocity remains in effect.
3. The out-of-state licensee complies with all applicable statutes, now or hereafter in effect, rules, and orders of the Agency and with all the terms and conditions of the license, except those terms and conditions inconsistent with applicable statutes, rules and orders of the Agency;
4. The out-of-state licensee supplies any other information the Agency requests; and
5. The out-of-state licensee does not transfer or dispose of radioactive material possessed or used under the general license provided in this Section except by transfer to a person:
   a. Specifically licensed by the Agency, or by the U.S. Nuclear Regulatory Commission to receive the radioactive material; or
   b. Exempt under R12-1-303(A).

B. Notwithstanding the provisions of subsection (A)(1), this subsection grants a general license to manufacture, install, transfer, demonstrate, or service a device described in R12-1-306(B)(1) to any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission, Licensing State, or an Agreement State authorizing the same activities within areas subject to the jurisdiction of the licensing body, provided that:

1. The person files a report with the Agency within 30 days after the end of each calendar quarter in which any device is transferred to or installed in this State. Each report shall identify the general licensee to whom the device is transferred by name and address, the type of device transferred, and the quantity and type of radioactive material contained in the device;
2. The device has been manufactured, labeled, installed, and serviced according to the applicable provisions of the specific license issued to the person by the U.S. Nuclear Regulatory Commission or an Agreement State;
3. The person entering the state ensures that any labels required to be affixed to the device under rules of the authority which licensed manufacture of the device bear the following statement: "Removal of this label is prohibited"; and
4. The holder of the specific license furnishes a copy of the general license contained in R12-1-306(B), or equivalent rules of the agency having jurisdiction over the manufacture or distribution of the device, to each general licensee to whom the licensee transfers the device or on whose premises the device is installed.

C. The Agency may withdraw, limit, or qualify the acceptance of any specific license or equivalent licensing document issued by another agency, or any product distributed under a license, upon determining that an action is necessary to prevent undue hazard to public health and safety, or property.

D. Before radioactive material can be used at a temporary job site within the state at any federal facility, a specific licensee shall determine the jurisdictional status of the job site. If the jurisdictional status is unknown, the specific licensee shall contact the controlling federal agency to determine whether the job site is under exclusive federal jurisdiction.

E. Before using radioactive material at a job site under exclusive federal jurisdiction, a specific licensee shall:

1. Obtain authorization from the NRC; and
2. Use the radioactive material in accordance with applicable NRC regulations and orders, and be able to demonstrate to the Agency that the correct license fee was paid to the NRC.

F. Before radioactive material can be used at a temporary job site in another state, a specific licensee shall obtain authorization from the state, if it is an Agreement State, or from the NRC for any non-Agreement State, either by filing for reciprocity or applying for a specific license.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-320 renumbered to R12-1-321, new Section R12-1-320 renumbered from R12-1-319 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-320 renumbered to R12-1-319; new Section R12-1-320 renumbered from R12-1-321 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-321. Repealed

Historical Note

Former Rule Section C.201; Former Section R12-1-321 repealed, new Section R12-1-321 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-321 renumbered to R12-1-322, new Section R12-1-321 renumbered from R12-1-320 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-321 renumbered to R12-1-320; new Section R12-1-321 renumbered from R12-1-322 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-322. The Need for an Emergency Plan for Response to a Release of Radioactive Material

A. For purposes of this rule, "Emergency Plan" means a procedure that will be followed when an accident occurs involving licensed radioactive materials for which an offsite response may be needed from organizations, such as police, fire, or medical organizations.

B. Each application to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in Exhibit D, "Radioactive Material Quantities Requiring Consideration for an Emergency Plan" shall contain either:

1. An evaluation showing that the maximum dose to a person off-site due to a release of radioactive materials would not exceed 1 rem effective dose equivalent or 5 rems to the thyroid; or
2. An emergency plan for responding to a release of radioactive material.

C. One or more of the following factors may be used to support an evaluation submitted under subsection (B)(1):

1. The radioactive material is physically separated so that only a portion could be involved in an accident.
2. All or part of the radioactive material is not subject to release during an accident because of the way it is stored or packaged;
3. The release fraction in the respirable size range would be lower than the release fraction shown in Exhibit D due to the chemical or physical form of the material;
4. The solubility of the radioactive material would reduce the dose received;
5. Facility design or engineered safety features in the facility would cause the release fraction to be lower than shown in Exhibit D;
6. Operating restrictions or procedures would prevent a release fraction as large as that shown in Exhibit D; or
7. Other factors appropriate for the specific facility.

D. An emergency plan for responding to a release of radioactive material submitted under subsection (B)(2) shall include the following information:

1. A brief description of the licensee's facility and areas near the site that could expose a member of the public to a dose equal to or greater than the levels expressed in subsection (B)(1).
2. An identification of each type of radioactive materials accident for which protective actions may be needed.
3. A classification system for classifying accidents as alerts or site area emergencies.
4. Identification of the means of detecting each type of accident in a timely manner.
5. A brief description of the means and equipment for mitigating the consequences of each type of accident, including those provided to protect workers onsite, and a description of the program for maintaining the equipment.
6. A brief description of the methods and equipment to assess releases of radioactive materials.
7. A brief description of the responsibilities of licensee personnel responsible for promptly notifying offsite response organizations and the Agency; also responsibilities for developing, maintaining, and updating the plan.
8. A commitment to and a brief description of the means to promptly notify offsite response organizations and request off-site assistance, including medical assistance for the treatment of contaminated and injured onsite workers when appropriate. A control point shall be established. The notification and coordination shall be planned so that unavailability of some personnel, parts of the facility, and some equipment will not prevent the notification and coordination. The licensee shall also commit to notify the Agency immediately after notification of the appropriate off-site response organizations and not later than one hour after the licensee declares an emergency.
9. A brief description of the types of information on facility status, radioactive releases, and recommended protective actions, if necessary, to be given to off-site response organizations and to the Agency.
10. A brief description of the frequency, performance objectives, and plans for the training that the licensee will provide workers on how to respond to an emergency including any special instructions and orientation tours the licensee would offer to fire, police, medical, and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site, including the use of team training for such scenarios.
11. A brief description of the means of restoring the facility to a safe condition after an accident.
12. Provisions for conducting quarterly communications checks with off-site response organizations and biennial onsite exercises to test response to simulated emergencies. Quarterly communications checks with off-site response organizations shall include the verifying and updating of all necessary telephone numbers. The licensee shall invite off-site response organizations to participate in the biennial exercises. Their participation is not required. Exercises shall use accident scenarios postulated as most probable for the specific site and the scenarios shall not be known to most exercise participants. The licensee shall critique each exercise, using individuals without direct implementation responsibility for the plan. Critiques of exercises shall evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques shall be corrected.
13. A certification that the applicant has met its responsibilities in A.R.S. §§ 26-341 through 26-353 (emergency Planning and Community Right-to-Know Act of 1986), if applicable to the applicant's activities at the proposed place of use of the radioactive material.

E. The licensee shall allow 60 days for the off-site response organizations, expected to respond in case of an accident, to comment on the licensee's emergency plan before submitting it to the Agency. The licensee shall provide any comments received within the 60 days to the Agency with the emergency plan.

Historical Note

Former Section R12-1-322 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-322 renumbered from R12-1-321 effective February 18, 1994 (Supp. 94-1). Former Section R12-1-322 renumbered to R12-1-321; new Section R12-1-322 renumbered from R12-1-323 and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-323. Financial Assurance and Recordkeeping for Decommissioning

A. For purposes of terminating specific licensed activities:

1. "Decommissioning" means to remove a radioactive material use facility safely from service and to reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the radioactive material use license.
2. "Byproduct material" as used in 10 CFR 30, means "radioactive material" which is defined in A.R.S. § 30-651.
3. "Facility" means the entire site of radioactive material use, or any separate building or outdoor area where it is used.
4. "Appendix B to Part 30" as used in 10 CFR 30, means Appendix E in 12 A.A.C. 1, Article 4.
5. "Financial security" means having a net worth of not less than $10,000.

B. When applying, each non-government applicant for a specific license that authorizes the possession and use of radioactive material, and each non-government holder of a license to possess and use radioactive material issued before the effective date of this Section, shall submit to the Agency a decommissioning funding plan or certification of financial security, as required in A.R.S. § 30-672(H). A licensee required to meet the requirements in subsection (C) is exempt from the requirements in this subsection.

C. When applying, each applicant for a specific license that authorizes the possession and use of radioactive material, and each holder of a license to possess and use radioactive material issued before the effective date of this Section, shall submit to the Agency a decommissioning funding plan or certification of financial assurance that meets the requirements in 10 CFR 30.35, 40.36, and 70.25, revised January1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

D. Each licensee required to provide financial assurance for decommissioning a radioactive material facility under this Section shall maintain records of information important to the safe and effective decommissioning of the facility in an identified location until the license is terminated by the Agency. The licensee shall maintain the following records during the decommissioning process:

1. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, and site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. The licensee shall keep records identifying the involved radionuclides and associated quantities, forms, and concentrations.
2. As-built drawings showing modifications of structures and equipment in restricted areas where radioactive materials are used and stored, and locations of possible inaccessible contamination. If drawings are not available, the licensee shall provide appropriate records describing each location of possible contamination.
3. Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

E. Decommissioning procedures:

1. Upon expiration or termination of principal activities a licensee shall notify the Agency in writing whether the licensee is discontinuing licensed activities. The licensee shall begin decommissioning its facility within 60 days after the Agency receives notice of the decision to permanently terminate principal activities, or within 12 months after receipt of notice, submit to the Agency a decommissioning plan, as prescribed in 10 CFR 30.36(g)(1), 40.42(g)(1), and 70.38(g)(1), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. The licensee shall begin decommissioning upon approval of the plan if the license has expired or no licensed activities have been conducted at the licensee's facility for a period of 24 months.
2. In addition to the notification requirements in subsection (E)(1), the licensee shall maintain in effect all decommissioning financial assurances required by this Section. The financial assurances shall be increased or may be decreased as appropriate to cover the cost estimate established for decommissioning in subsection (E)(1). The licensee may reduce the amount of the financial assurance following approval of the decommissioning plan, provided the radiological hazard is decreasing and the licensee has the approval of the Agency.
3. The Agency shall extend the time periods established in subsection (E)(1) if a new time period is in the best interest of public health and safety.
   a. The licensee shall submit a request for an extension no later than 30 days after the Agency receives the notice required in subsection (E)(1).
   b. If a licensee has requested an extension, the licensee is not required to commence decommissioning activities required in subsection (E)(1), until the Agency has made a determination on the request submitted to the Agency under subsection (E)(3)(a).
4. Except as provided in subsection (E)(5), the licensee shall complete decommissioning of a facility as soon as practicable but no later than 24 months following the initiation of decommissioning; and except as provided in subsection (E)(5), when decommissioning involves the entire facility, the licensee shall request license termination as soon as practicable but no later than 24 months following initiation of decommissioning.
5. The Agency shall approve a request for an alternate schedule for completion of decommissioning and license termination if the Agency determines that the alternative is warranted by consideration of the conditions specified in 10 CFR 30.36(i), 40.42(i), and 70.38(i), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
6. As a final step in decommissioning, the licensee shall meet the requirements specified in 10 CFR 30.36(j), 40.42(j), and 70.38(j), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

Historical Note

Former Section R12-1-323 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-323 adopted effective February 18, 1994 (Supp. 94-1). Former Section R12-1-323 renumbered to R12-1-322; new Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-324. Public Notification and Public Participation

Upon the receipt of a license termination plan (LTP) or decommissioning plan from a licensee, or a proposal by a licensee for decommissioning of a site in accordance with R12-1-452(C) and (D) or for other events when the Agency deems a notice to be in the public interest, the Agency shall:

1. Notify and solicit comments from:
   a. State and local governments and any Indian Nation or other indigenous people who have legal rights that could be affected by the decommissioning, and
   b. The Arizona Department of Environmental Quality for cases in which the licensee proposes to decommission a site in accordance with R12-1-452(D).
2. Publish the notice in the *Arizona Administrative Register* and use other methods of publication such as local newspapers, letters to local organizations, or any other method that is reasonably calculated to provide notice, and solicit comments from affected parties.

Radiation Regulatory Agency

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3). New Section made by final rulemaking at 10 A.A.R. 4588, effective December 4, 2004 (Supp. 04-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-325. Timeliness in Decommissioning Facilities

A. "Principal activities," as used in this Section, means activities authorized by the license that are essential to achieving the purposes for which the license was issued or amended. Storage, during which licensed material is not accessed for use, or disposal and other activities incidental to decontamination or decommissioning are not principal activities.

B. Each specific license revoked by the Agency expires at midnight on the date of the Agency's final determination to revoke the license, the expiration date stated in the determination, or as otherwise provided by Agency order.

C. Each specific license continues in effect, beyond the expiration date if necessary, with respect to possession of radioactive material, until the Agency notifies the licensee in writing that the license is terminated. During this time, the licensee shall:

1. Limit actions involving radioactive material to those related to decommissioning;
2. Continue to control entry to restricted areas until they are suitable for release in accordance with NRC requirements; and
3. Pay the applicable annual fee for the license category listed in R12-1-1306.

D. Within 60 days of the occurrence of any of the following, each licensee shall notify the Agency in writing of the occurrence and either begin decommissioning its site, or any separate building or outdoor area that contains residual radioactivity, so that the building or outdoor area is suitable for release in accordance with Agency requirements, or submit within 12 months of notification a decommissioning plan, if required by R12-1-323, and begin decommissioning upon approval of that plan if:

1. The license expires in accordance with subsection (B) or R12-1-314, unless the licensee submits a renewal application in accordance with R12-1-315;
2. The licensee decides to permanently terminate principal activities at the entire site or in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with Agency requirements;
3. No principal activities under the license have been conducted for a period of 24 months; or
4. No principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with Agency requirements.

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3). New Section made by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-326. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-327. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-328. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-329. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-330. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-331. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-332. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-333. Repealed

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-334. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-335. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-336. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-337. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-338. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-339. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-340. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-341. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-342. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-343. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-344. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-345. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-346. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-347. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

R12-1-348. Repealed

Historical Note
Repealed effective June 30, 1977 (Supp. 77-3).

Exhibit A. Exempt Concentrations

	Column I	Column II

Radiation Regulatory Agency

Element (atomic number)	Isotope	Gas Concentration (μCi/ml)[1]/	Liquid and Solid Concentration (μCi/ml)[2]/
Antimony (51)	Sb-122		$3X10^{-4}$
	Sb-124		$2X10^{-4}$
	Sb-125		$1X10^{-3}$
Argon (18)	Ar-37	$1X10^{-3}$	
	Ar-41	$4X10^{-7}$	
Arsenic (33)	As-73		$5X10^{-3}$
	As-74		$5X10^{-4}$
	As-76		$2X10^{-4}$
	As-77		$8X10^{-4}$
Barium (56)	Ba-131		$2X10^{-3}$
	Ba-140		$3X10^{-4}$
Beryllium (4)	Be-7		$2X10^{-2}$
Bismuth (83)	Bi-206		$4X10^{-4}$
Bromine (35)	Br-82	$4X10^{-7}$	$3X10^{-3}$
Cadmium (48)	Cd-109		$2X10^{-3}$
	Cd-115m		$3X10^{-4}$
	Cd-115		$3X10^{-4}$
Calcium (20)	Ca-45		$9X10^{-5}$
	Ca-47		$5X10^{-4}$
Carbon (6)	C-14	$1X10^{-6}$	$8X10^{-3}$
Cerium (58)	Ce-141		$9X10^{-4}$
	Ce-143		$4X10^{-4}$
	Ce-144		$1X10^{-4}$
Cesium (55)	Cs-131		$2X10^{-2}$
	Cs-134m		$6X10^{-2}$
	Cs-134		$9X10^{-5}$
Chlorine (17)	Cl-38	$9X10^{-7}$	$4X10^{-3}$
Chromium (24)	Cr-51		$2X10^{-2}$
Cobalt (27)	Co-57		$5X10^{-3}$
	Co-58		$1X10^{-3}$
	Co-60		$5X10^{-4}$
Copper (29)	Cu-64		$3X10^{-3}$
Dysprosium (66)	Dy-165		$4X10^{-3}$
	Dy-166		$4X10^{-4}$
Erbium (68)	Er-169		$9X10^{-4}$
	Er-171		$1X10^{v}$
Europium (63)	Eu-152		$6X10^{-4}$
	(T_r=9.2 h)		
	Eu-155		$2X10^{-3}$
Fluorine (9)	F-18	$2X10^{-6}$	$8X10^{-3}$
Gadolinium (64)	Gd-153		$2X10^{-3}$
	Gd-159		$8X10^{-4}$
Gallium (31)	Ga-72		$4X10^{-4}$
Germanium (32)	Ge-71		$2X10^{-2}$
Gold (79)	Au-196		$2X10^{-3}$
	Au-198		$5X10^{-4}$
	Au-199		$2X10^{-3}$
Hafnium (72)	Hf-181		$7X10^{-4}$
Hydrogen (1)	H-3	$5X10^{-6}$	$3X10^{-2}$
Indium (49)	In-113m		$1X10^{-2}$
	In-114m		$2X10^{-4}$
Iodine	I-126	$3X10^{-9}$	$2X10^{-5}$
	I-131	$3X10^{-9}$	$2X10^{-5}$
	I-132	$8X10^{-8}$	$6X10^{-4}$
	I-133	$1X10^{-8}$	$7X10^{-5}$
	I-134	$2X10^{-7}$	$1X10^{-3}$
Iridium (77)	Ir-190		$2X10^{-3}$
	Ir-192		$4X10^{-4}$

	Ir-194		$3X10^{-4}$
Iron (26)	Fe-55		$8X10^{-3}$
	Fe-59		$6X10^{-4}$
Krypton (36)	Kr-85m	$1X10^{-6}$	
	Kr-85	$3X10^{-6}$	
Lanthanum (57)	La-140		$2X10^{-4}$
Lead (82)	Pb-203		$4X10^{-3}$
Lutetium (71)	Lu-177		$1X10^{-3}$
Manganese (25)	Mn-52		$3X10^{-4}$
	Mn-54		$1X10^{-3}$
	Mn-56		$1X10^{-3}$
Mercury (80)	Hg-197m		$2X10^{-3}$
	Hg-197		$3X10^{-3}$
	Hg-203		$2X10^{-4}$
Molybdenum (42)	Mo-99		$2X10^{-3}$
Neodymium (60)	Nd-147		$6X10^{-4}$
	Nd-149		$3X10^{-3}$
Nickel (28)	Ni-65		$1X10^{-3}$
Niobium (Columbium) (41)	Nb-95		$1X10^{-3}$
	Nb-97		$9X10^{-3}$
Osmium (76)	Os-185		$7X10^{-4}$
	Os-191m		$3X10^{-2}$
	Os-191		$2X10^{-3}$
	Os-193		$6X10^{-4}$
Palladium (46)	Pd-103		$3X10^{-3}$
	Pd-109		$9X10^{-4}$
Phosphorus (15)	P-32		$2X10^{-4}$
Platinum (78)	Pt-191		$1X10^{-3}$
	Pt-193m		$1X10^{-2}$
	Pt-197m		$1X10^{-2}$
	Pt-197		$1X10^{-3}$
Potassium (19)	K-42		$3X10^{-3}$
Praseodymium (59)	Pr-142		$3X10^{-4}$
	Pr-143		$5X10^{-4}$
Promethium (61)	Pm-147		$2X10^{-3}$
	Pm-149		$4X10^{-4}$
Rhenium (75)	Re-183		$6X10^{-3}$
	Re-186		$9X10^{-4}$
	Re-188		$6X10^{-4}$
Rhodium (45)	Rh-103m		$1X10^{-1}$
	Rh-105		$1X10^{-3}$
Rubidium (37)	Rb-86		$7X10^{-4}$
Ruthenium (44)	Ru-97		$4X10^{-3}$
	Ru-103		$8X10^{-4}$
	Ru-105		$1X10^{-3}$
	Ru-106		$1X10^{-4}$
Samarium (62)	Sm-153		$8X10^{-4}$
Scandium (21)	Sc-46		$4X10^{-4}$
	Sc-47		$9X10^{-4}$
	Sc-48		$3X10^{-4}$
Selenium (34)	Se-75		$3X10^{-3}$
Silicon (14)	Si-31		$9X10^{-3}$
Silver (47)	Ag-105		$1X10^{-3}$
	Ag-110m		$3X10^{-4}$
	Ag-111		$4X10^{-4}$
Sodium (11)	Na-24		$2X10^{-3}$
Strontium (38)	Sr-85		$1X10^{-3}$
	Sr-89		$1X10^{-4}$
	Sr-91		$7X10^{-4}$
	Sr-92		$7X10^{-4}$
Sulfur (16)	S-35	$9X10^{-8}$	$6X10^{-4}$
Tantalum (73)	Ta-182		$4X10^{-4}$

Technetium (43)	Tc-96m		$1X10^{-1}$
	Tc-96		$1X10^{-3}$
Tellurium (52)	Te-125m		$2X10^{-3}$
	Te-127m		$6X10^{-4}$
	Te-127		$3X10^{-3}$
	Te-129m		$3X10^{-4}$
	Te-131m		$6X10^{-4}$
	Te-132		$3X10^{-4}$
Terbium (65)	Tb-160		$4X10^{-4}$
Thallium (81)	Tl-200		$4X10^{-3}$
	Tl-201		$3X10^{-3}$
	Tl-202		$1X10^{-3}$
	Tl-204		$1X10^{-3}$
Thulium (69)	Tm-170		$5X10^{-4}$
	Tm-171		$5X10^{-3}$
Tin (50)	Sn-113		$9X10^{-4}$
	Sn-125		$2X10^{-4}$
Tungsten (Wolfram) (74)	W-181		$4X10^{-3}$
	W-187		$7X10^{-4}$
Vanadium (23)	V-48		$3X10^{-4}$
Xenon (54)	Xe-131m	$4X10^{-6}$	
	Xe-133	$3X10^{-6}$	
	Xe-135	$1X10^{-6}$	
Ytterbium (70)	Yb-175		$1X10^{-3}$
Yttrium (39)	Y-90		$2X10^{-4}$
	Y-91m		$3X10^{-2}$
	Y-91		$3X10^{-4}$
	Y-92		$6X10^{-4}$
	Y-93		$3X10^{-4}$
Zinc (30)	Zn-65		$1X10^{-3}$
	Zn-69m		$7X10^{-4}$
	Zn-69		$2X10^{-2}$
Zirconium (40)	Zr-95		$6X10^{-4}$
	Zr-97		$2X10^{-4}$
	(See notes at end of appendix)		
Beta and/or gamma emitting radioactive material not listed above with half-life less than three years		$1X10^{-10}$	$1X10^{-6}$

NOTE 1: Many radioisotopes disintegrate into isotopes which are also radioactive. In expressing the concentrations in Schedule A the activity stated is that of the parent isotope and takes into account the daughters.

1/ Values are given in Column I only for those materials normally used as gases

2/ μCi/gm are for solids

NOTE 2: For purposes of Section 303 where there is involved a combination of isotopes, the limit for the combination should be derived as follows: Determine for each isotope in the product the ratio between the concentration present in the product and the exempt concentration established in Schedule A for the specific isotope when not in combination. The sum of such ratios may not exceed "1" (i.e., unity).

EXAMPLE:

$$\frac{\text{Concentration of Isotope A in Product}}{\text{Exempt concentration of Isotope A}} + \frac{\text{Concentration of Isotope B in Product}}{\text{Exempt concentration of Isotope B}} \leq 1$$

Historical Note

Appendix A repealed, Schedule A adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

Exhibit B. Exempt Quantities

Material	Microcuries
Antimony-122 (Sb-122)	100
Antimony-124 (Sb-124)	10

Antimony-125 (Sb-125)	10
Arsenic-73 (As-73)	100
Arsenic-74 (As-74)	10
Arsenic-76 (As-76)	10
Arsenic-77 (As-77)	100
Barium-131 (Ba-131)	10
Barium-133 (Ba-133)	10
Barium-140 (Ba-140)	10
Bismuth-210 (Bi-210)	1
Bromine-82 (Br-82)	10
Cadmium-109 (Cd-109)	10
Cadmium-115m (Cd-115m)	10
Cadmium-115 (Cd-115)	100
Calcium-45 (Ca-45)	10
Calcium-47 (Ca-47)	10
Carbon-14 (C-14)	100
Cerium-141 (Ce-141)	100
Cerium-143 (Ce-143)	100
Cerium-144 (Ce-144)	1
Cesium-129 (Cs-129)	100
Cesium-131 (Cs-131)	1,000
Cesium-134m (Cs-134m)	100
Cesium-134 (Cs-134)	1
Cesium-135 (Cs-135)	10
Cesium-136 (Cs-136)	10
Cesium-137 (Cs-137)	10
Chlorine-36 (Cl-36)	10
Chlorine-38 (Cl-38)	10
Chromium-51 (Cr-51)	1,000
Cobalt-57 (Co-57)	100
Cobalt-58m (Co-58m)	10
Cobalt-58 (Co-58)	10
Cobalt-60 (Co-60)	1
Copper-64 (Cu-64)	100
Dysprosium-165 (Dy-165)	10
Dysprosium-166 (Dy-166)	100
Erbium-169 (Er-169)	100
Erbium-171 (Er-171)	100
Europium-152 (Eu-152) (9.2 h)	100
Europium-152 (Eu-152) (13 yr)	1
Europium-154 (Eu-154)	1
Europium-155 (Eu-155)	10
Fluorine-18 (F-18)	1,000
Gadolinium-153 (Gd-153)	10
Gadolinium-159 (Gd-159)	100
Gallium-67 (Ga-67)	100
Gallium-72 (Ga-72)	10
Germanium-68 (Ge-68)	10
Germanium-71 (Ge-71)	100
Gold-195 (Au-195)	10
Gold-198 (Au-198)	100
Gold-199 (Au-199)	100
Hafnium-181 (Hf-181)	10
Holmium-166 (Ho-166)	100
Hydrogen-3 (H-3)	1,000
Indium-111 (In-111)	100
Indium-113m (In-113m)	100
Indium-114m (In-114m)	10
Indium-115m (In-115m)	100

Indium-115 (In-115)	10
Iodine-123 (I-123)	100
Iodine-125 (I-125)	1
Iodine-126 (I-126)	1
Iodine-129 (I-129)	0.1
Iodine-131 (I-131)	1
Iodine-132 (I-132)	10
Iodine-133 (I-133)	1
Iodine-134 (I-134)	10
Iodine-135 (I-135)	10
Iridium-192 (Ir-192)	10
Iridium-194 (Ir-194)	100
Iron-52 (Fe-52)	10
Iron-55 (Fe-55)	100
Iron-59 (Fe-59)	10
Krypton-85 (Kr-85)	100
Krypton-87 (Kr-87)	10
Lanthanum-140 (La-140)	10
Lutetium-177 (Lu-177)	100
Manganese-52 (Mn-52)	10
Manganese-54 (Mn-54)	10
Manganese-56 (Mn-56)	10
Mercury-197m (Hg-197m)	100
Mercury-197 (Hg-197)	100
Mercury-203 (Hg-203)	10
Molybdenum-99 (Mo-99)	100
Neodymium-147 (Nd-147)	100
Neodymium-149 (Nd-149)	100
Nickel-59 (Ni-59)	100
Nickel-63 (Ni-63)	10
Nickel-65 (Ni-65)	100
Niobium-93m (Nb-93m)	10
Niobium-95 (Nb-95)	10
Niobium-97 (Nb-97)	10
Osmium-185 (Os-185)	10
Osmium-191m (Os-191m)	100
Osmium-191(Os-191)	100
Osmium-193 (Os-193)	100
Palladium-103 (Pd-103)	100
Palladium-109 (Pd-109)	100
Phosphorus-32 (P-32)	10
Platinum-191 (Pt-191)	100
Platinum-193m (Pt-193m)	100
Platinum-193 (Pt-193)	100
Platinum-197m (Pt-197m)	100
Platinum-197 (Pt-197)	100
Polonium-210 (Po-210)	0.1
Potassium-42 (K-42)	10
Potassium-43 (K-43)	10
Praseodymium-142 (Pr-142)	100
Praseodymium-143 (Pr-143)	100
Promethium-147 (Pm-147)	10
Promethium-149 (Pm-149)	10
Rhenium-186 (Re-186)	100
Rhenium-188 (Re-188)	100
Rhodium-103m (Rh-103m)	100
Rhodium-105 (Rh-105)	100
Rubidium-81 (Rb-81)	10
Rubidium-86 (Rb-86)	10

Rubidium-87 (Rb-87)	10
Ruthenium-97 (Ru-97)	100
Ruthenium-103 (Ru-103)	10
Ruthenium-105 (Ru-105)	10
Ruthenium-106 (Ru-106)	1
Samarium-151 (Sm-151)	10
Samarium-153 (Sm-153)	100
Scandium-46 (Sc-46)	10
Scandium-47 (Sc-47)	100
Scandium-48 (Sc-48)	10
Selenium-75 (Se-75)	10
Silicon-31 (Si-31)	100
Silver-105 (Ag-105)	10
Silver-110m (Ag-110m)	1
Silver-111 (Ag-111)	100
Sodium-22 (Na-22)	10
Sodium-24 (Na-24)	10
Strontium-85 (Sr-85)	10
Strontium-89 (Sr-89)	1
Strontium-90 (Sr-90)	0.1
Strontium-91 (Sr-91)	10
Strontium-92 (Sr-92)	10
Sulfur-35 (S-35)	100
Tantalum-182 (Ta-182)	10
Technetium-96 (Tc-96)	10
Technetium-97m (Tc-97m)	100
Technetium-97 (Tc-97)	100
Technetium-99m (Tc-99m)	100
Technetium-99 (Tc-99)	10
Tellurium-125m (Te-125m)	10
Tellurium-127m (Te-127m)	10
Tellurium-127 (Te-127)	100
Tellurium-129m (Te-129m)	10
Tellurium-129 (Te-129)	100
Tellurium-131m (Te-131m)	10
Tellurium-132 (Te-132)	10
Terbium-160 (Tb-160)	10
Thallium-200 (Tl-200)	100
Thallium-201 (Tl-201)	100
Thallium-202 (Tl-202)	100
Thallium-204 (Tl-204)	10
Thulium-170 (Tm-170)	10
Thulium-171 (Tm-171)	10
Tin-113 (Sn-113)	10
Tin-125 (Sn-125)	10
Tungsten-181 (W-181)	10
Tungsten-185 (W-185)	10
Tungsten-187 (W-187)	100
Vanadium-43 (V-48)	10
Xenon-131m (Xe-131m)	1,000
Xenon-133 (Xe-133)	100
Xenon-135 (Xe-135)	100
Ytterbium-175 (Yb-175)	100
Yttrium-87 (Y-87)	10
Yttrium-88 (Y-88)	10
Yttrium-90 (Y-90)	10
Yttrium-91 (Y-91)	10
Yttrium-92 (Y-92)	100
Yttrium-93 (Y-93)	100

Zinc-65 (Zn-65)	10
Zinc-69m (Zn-69m)	100
Zinc-69 (Zn-69)	1,000
Zirconium-93 (Zr-93)	10
Zirconium-95 (Zr-95)	10
Zirconium-97 (Zr-97)	10
Any radionuclide material not listed above other than alpha-emitting radioactive material	0.1

Historical Note

Adopted effective June 30. 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Exhibit B amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

Exhibit C. Limits for Class B and C Broad Scope Licenses (R12-1-310)

Col. I	Col. II	
Radioactive Material	curies	curies
Antimony-122	1	0.01
Antimony-124	1	0.01
Antimony-125	1	0.01
Arsenic-73	10	0.1
Arsenic-74	1	0.01
Arsenic-76	1	0.01
Arsenic-77	10	0.1
Barium-131	10	0.1
Barium-140	1	0.01
Beryllium-7	10	0.1
Bismuth-210	0.1	0.001
Bromine-82	10	0.1
Cadmium-109	1	0.01
Cadmium-115m	1	0.01
Cadmium-115	10	0.1
Calcium-45	1	0.01
Calcium-47	10	0.1
Carbon-14	100	1.
Cerium-141	10	0.1
Cerium-143	10	0.1
Cerium-144	0.1	0.001
Cesium-131	100	1.
Cesium-134m	100	1.
Cesium-134	0.1	0.001
Cesium-135	1	0.01
Cesium-136	10	0.1
Cesium-137	0.1	0.001
Chlorine-36	1	0.01
Chlorine-38	100	1.
Chromium-51	100	1.
Cobalt-57	10	0.1
Cobalt-58m	100	1.
Cobalt-58	1	0.01
Cobalt-60	0.1	0.001
Copper-64	10	0.1
Dysprosium-165	100	1.
Dysprosium-166	10	0.1
Erbium-169	10	0.1
Erbium-171	10	0.1
Europium-152 (9.2 h)	10	0.1
Europium-152 (13 yr)	0.1	0.001
Europium-154	0.1	0.001
Europium-155	1	0.01
Fluorine-18	100	1.

Gadolinium-153	1	0.1
Gadolinium-159	10	0.1
Gallium-72	10	0.1
Germanium-71	100	1.
Gold-198	10	0.1
Gold-199	10	0.1
Hafnium-181	1	0.1
Holmium-166	10	0.1
Hydrogen-3	100	1.
Indium-113m	100	1.
Indium-114m	1	0.1
Indium-115m	100	1.
Indium-115	1	0.1
Iodine-125	0.1	0.001
Iodine-126	0.1	0.001
Iodine-129	0.1	0.001
Iodine-131	0.1	0.001
Iodine-132	10	0.1
Iodine-133	1	0.1
Iodine-134	10	0.1
Iodine-135	1	0.1
Iridium-192	1	0.1
Iridium-194	10	0.1
Iron-55	10	0.1
Iron-59	1	0.1
Krypton-85	100	1.
Krypton-87	10	0.1
Lanthanum-140	1	0.1
Lutetium-177	10	0.1
Manganese-52	1	0.1
Manganese-54	1	0.1
Manganese-56	10	0.1
Mercury-197m	10	0.1
Mercury-197	10	0.1
Mercury-203	1	0.1
Molybdenum-99	10	0.1
Neodymium-147	10	0.1
Neodymium-149	10	0.1
Nickel-59	10	0.1
Nickel-63	1	0.1
Nickel-65	10	0.1
Niobium-93m	1	0.1
Niobium-95	1	0.1
Niobium-97	100	1.
Osmium-185	1	0.1
Osmium-191m	100	1.
Osmium-191	10	0.1
Osmium-193	10	0.1
Palladium-103	10	0.1
Palladium-109	10	0.1
Phosphorus-32	1	0.01
Platinum-191	10	0.1
Platinum-193m	100	1.
Platinum-193	10	0.1
Platinum-197m	100	1.
Platinum-197	10	0.1
Polonium-210	0.01	0.0001
Potassium-42	1	0.01
Praseodymium-142	10	0.1
Praseodymium-143	10	0.1
Promethium-147	1	00.1
Promethium-149	10	0.1

Radium-226	0.01	0.0001
Rhenium-186	10	0.1
Rhenium-188	10	0.1
Rhodium-103m	1,000	10
Rhodium-105	10	0.1
Rubidium-86	1	0.01
Rubidium-87	1	0.01
Ruthenium-97	100	1.
Ruthenium-103	1	0.01
Ruthenium-105	10	0.1
Ruthenium-106	0.1	0.001
Samarium-151	1	0.01
Samarium-153	10	0.1
Scandium-46	1	0.01
Scandium-47	10	0.1
Scandium-48	1	0.01
Selenium-75	1	0.01
Silicon-31	10	0.1
Silver-105	1	0.01
Silver-110m	0.1	0.001
Silver-111	10	0.1
Sodium-22	0.1	0.001
Sodium-24	1	0.01
Strontium-85	1,000	10
Strontium-85	1	0.01
Strontium-89	1	0.01
Strontium-90	0.01	0.0001
Strontium-91	10	0.1
Strontium-92	10	0.1
Sulfur-35	100	0.1
Tantalum-182	1	0.01
Technetium-96	10	0.1
Technetium-97m	10	0.1
Technetium-97	10	0.1
Technetium-99m	100	1.
Technetium-99	1	0.01
Tellurium-125m	1	0.01
Tellurium-127m	1	0.01
Tellurium-127	10	0.1
Tellurium-129m	1	0.01
Tellurium-129	100	1.
Tellurium-131m	10	0.1
Tellurium-132	1	0.01
Terbium-160	1	0.01
Thallium-200	10	0.1
Thallium-201	10	0.1
Thallium-202	10	0.1
Thallium-204	1	0.01
Thulium-170	1	0.01
Thulium-171	1	0.01
Tin-113	1	0.01
Tin-125	1	0.01
Tungsten-181	1	0.01
Tungsten-185	1	0.01
Tungsten-197	10	0.1
Vanadium-43	1	0.01
Xenon-131m	1,000	10
Xenon-133	100	1.
Xenon-135	100	1.
Ytterbium-175	10	0.1
Yttrium-90	1	0.01
Yttrium-91	1	0.01

Yttrium-92	10	0.1	
Yttrium-93	1	0.01	
Zinc-65	1	0.01	
Zinc-69m	10	0.1	
Zinc-69	100	1.	
Zirconium-93	1	0.01	
Zirconium-95	1	0.01	
Zirconium-97	1	0.01	
Any radioactive material other than source material, special nuclear material, or alpha emitting radioactive material not listed above.		0.1	0.001

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Schedule C repealed; new Exhibit C renumbered from Exhibit D and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

Exhibit D. Radioactive Material Quantities Requiring Consideration for an Emergency Plan (R12-1-322)

Radioactive Material	Release Fraction	Quantity (Ci)		
Actinium-228	0.001	4,000		
Americium-241		.001	2	
Americium-242		.001	2	
Americium-243		.001	2	
Antimony-124	.01	4,000		
Antimony-126	.01	6,000		
Barium-133	.01	10,000		
Barium-140	.01	30,000		
Bismuth-207	.01	5,000		
Bismuth-210	.01	600		
Cadmium-109	.01	1,000		
Cadmium-113	.01	80		
Calcium-45	.01	20,000		
Californium-252		.001	9 (20 mg)	
Carbon-14 (Non CO)			.01	50,000
Cerium-141	.01	10,000		
Cerium-144	.01	300		
Cesium-134	.01	2,000		
Cesium-137	.01	3,000		
Chlorine-36	.5	100		
Chromium-51	.01	300,000		
Cobalt-60	.001	5,000		
Copper-64	.01	200,000		
Curium-242	.001	60		
Curium-243	.001	3		
Curium-244	.001	4		
Curium-245	.001	2		
Europium-152	.01	500		
Europium-154	.01	400		
Europium-155	.01	3,000		
Gadolinium-153		.01	5,000	
Germanium-68		.01	2,000	
Gold-198	.01	30,000		
Hafnium-172	.01	400		
Hafnium-181	.01	7,000		
Holmium-166m		.01	100	
Hydrogen-3	.5	20,000		
Indium-114m	.01	1,000		
Iodine-125	.5	10		
Iodine-131	.5	10		
Iridium-192	.001	40,000		

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Iron-55	.01	40,000			
Iron-59	.01	7,000			
Krypton-85		1.0	6,000,000		
Lead-210	.01	8			
Manganese-56		.01	60,000		
Mercury-203		.01	10,000		
Molybdenum-99			.01	30,000	
Neptunium-237			.001	2	
Nickel-63	.01	20,000			
Niobium-94		.01	300		
Phosphorus-32			.5	100	
Phosphorus-33			.5	1,000	
Polonium-210		.01	10		
Potassium-42		.01	9,000		
Promethium-145			.01	4,000	
Promethium-147			.01	4,000	
Radium-226		.001	100		
Ruthenium-106			.01	200	
Samarium-151		.01	4,000		
Scandium-46		.01	3,000		
Selenium-75		.01	10,000		
Silver-110m		.01	1,000		
Sodium-22		.01	9,000		
Sodium-24		.01	10,000		
Strontium-89		.01	3,000		
Strontium-90		.01	90		
Sulfur-35	.5	900			
Technetium-99			.01	10,000	
Technetium-99m			.01	400,000	
Tellurium-127m			.01	5,000	
Tellurium-129m			.01	5,000	
Terbium-160		.01	4,000		
Thulium-170		.01	4,000		
Tin-113	.01	10,000			
Tin-123	.01	3,000			
Tin-126	.01	1,000			
Titanium-44		.01	100		
Vanadium-48		.01	7,000		
Xenon-133		1.0	900,000		
Yttrium-91		.01	2,000		
Zinc-65	.01	5,000			
Zirconium-93		.01	400		
Zirconium-95		.01	5,000		
Any other beta-gamma emitter				.01	10,000
Mixed fission products				.01	1,000
Mixed corrosion products				.01	10,000
Contaminated equipment beta-gamma		.001	10,000		
Irradiated material, any form other than solid non-combustible		.01	1,000		
Irradiated material, solid noncombustible		.001	10,000		
Mixed radioactive waste, beta-gamma		.01	1,000		
Packaged mixed waste, beta gamma		.001	10,000		
Any other alpha emitter				.001	2
Contaminated equipment, alpha				.0001	20
Packaged waste, alpha				.0001	20

Combinations of radioactive materials listed above:

For combinations of radioactive materials, consideration of the need for an emergency plan is required if the sum of the ratios of the quantity of each radioactive material authorized to the quantity listed for that material in Exhibit D exceeds 1.

NOTE: Waste packaged in Type B containers does not require an emergency plan.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Former Schedule D renumbered to Exhibit C; new Exhibit D renumbered from Schedule E and amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Exhibit D amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

Exhibit E. Application Information

1. Radioactive Material (RAM) Specific License Application Information

An applicant shall provide the following information in a specific license application before a license is issued to the applicant. The Agency shall provide an application form to an applicant with a guide, when possible, to ensure that correct information is provided in the application:

Name and mailing address of applicant
Use location
Contact person
Telephone number
Users of RAM
Training of users
Radiation Safety Officer identity (RSO)
Duties of RSO
Description of RAM and uses
Description of radiation detection/measurement instruments and their calibration
Personnel monitoring
Bioassay program
Facility description
Survey program
Leak test program
Records management program
Instruction to personnel
Waste disposal program
Emergency procedures
Procedures for ordering, receiving, and opening packages
Description of animal use
Licensing fee provided with application
Copy of letter-of-intent to local governing body
Description of ALARA and quality management programs
Description of transportation procedures
Certifying signature
Legal structure of licensee's operation

Other licensing requirements listed in: R12-1-310, R12-1-311, R12-1-312, R12-1-511, R12-1-703, and R12-1-1721

2. Radioactive Material (RAM) General License Application Information

An applicant shall provide the following information on a registration certificate. The certificate will be validated and returned to the applicant if the information provided is complete.

Name and address
Telephone number
Where will the radioactive material be used
Address of use location
Description of radioactive material use
Date
Authorizing signature and printed name
Position of person signing the form

Historical Note

Adopted effective February 18, 1994 (Supp. 94-1). Former Schedule E renumbered to Exhibit D; new Exhibit adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

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ARTICLE 4. STANDARDS FOR PROTECTION AGAINST IONIZING RADIATION

R12-1-401. Purpose

A. Article 4 establishes standards for protection against ionizing radiation resulting from activities conducted according to licenses or registrations issued by the Agency. These rules are issued according to A.R.S. Title 30, Chapter 4, as amended.

B. The requirements of Article 4 are designed to control the receipt, possession, use, transfer, and disposal of sources of radiation by any licensee or registrant so the total dose equivalent to an individual, including radiation exposure resulting from all sources of radiation other than radiation prescribed by a physician in the practice of medicine, radiation received while voluntarily participating in a medical research program, and background radiation, does not exceed the standards for protection against radiation prescribed in this Article. However, this Article does not limit actions that may be necessary to protect health and safety.

Historical Note

Former Rule Section D.1; Former Section R12-1-401 repealed, new Section R12-1-401 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-402. Scope

Except as specifically provided in other Articles of these rules, Article 4 applies to persons licensed or registered by the Agency to receive, possess, use, transfer, or dispose of sources of ionizing radiation.

Historical Note

Former Rule Section D.2; Former Section R12-1-402 repealed, new Section R12-1-402 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended subsection (A) effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-403. Definitions

The following definitions apply in this Article, unless the context otherwise requires:

"Air-purifying respirator" means respiratory protective equipment with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

"ALI" means annual limit on intake, the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the Reference Man that would result in a committed effective dose equivalent of 0.05 Sv (5 rem) or a committed dose equivalent of 0.5 Sv (50 rem) to any individual organ or tissue. ALI values for intake by ingestion and by inhalation of selected radionuclides are given in Appendix B, Table I, Columns 1 and 2.

"Assigned protection factor" or "APF" means the expected workplace level of respirator protection that would be provided by a properly functioning respirator or a class of respirators to properly fitted and trained users. Operationally, the inhaled concentration can be estimated by dividing the ambient airborne concentration by the APF.

"Atmosphere-supplying respirator" means respiratory protective equipment that supplies the equipment user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

"Class" means a classification scheme for inhaled material according to the material's rate of clearance from the lung. Materials are classified as D, W, or Y, which applies to a range of clearance half-times: for Class D, days, of less than 10 days, for Class W, weeks, from 10 to 100 days, and for Class Y, years, of greater than 100 days (see Introduction, Appendix B). For purposes of these rules, "lung class" and "inhalation class" are equivalent terms.

"Constraint" or "dose constraint" means a value above which specified licensee or registrant actions are required.

"Critical group" means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.

"DAC" means derived air concentration, the concentration of a given radionuclide in air which, if breathed by Reference Man for a working year of 2,000 hours under conditions of light work, results in an intake of one ALI. For purposes of these rules, the condition of light work is an inhalation rate of 1.2 cubic meters of air per hour for 2,000 hours in a year. DAC values are given in Appendix B, Table I, Column 3.

"DAC-hour" means derived air concentration-hour, the product of the concentration of radioactive material in air, expressed as a fraction or multiple of the derived air concentration for each radionuclide, and the time of exposure to that radionuclide, in hours. A licensee or registrant may take 2,000 DAC-hours to represent one ALI, equivalent to a committed effective dose equivalent of 0.05 Sv (5 rem).

"Declared pregnant woman" means a woman who has voluntarily informed the licensee or registrant in writing of her pregnancy and the estimated date of conception. The declaration remains in effect until the declared pregnant woman withdraws the declaration in writing or is no longer pregnant.

"Decommission" means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the license or release of the property under restricted conditions and the termination of the license.

"Demand respirator" means an atmosphere-supplying respiratory protective equipment that admits breathing air to the face piece only when a negative pressure is created inside the face piece by inhalation.

"Deterministic effect" (See "Nonstochastic effect")

"Disposable respirator" means respiratory protective equipment for which maintenance is not intended and that is designed to be discarded after excessive breathing resistance, sorbent depletion, physical damage, or end-of-service-life renders it unsuitable for use. Examples of this type of device include a disposable half-mask respirator or a disposable, escape-only, self-contained breathing apparatus (SCBA).

"Distinguishable from background" means that the detectable concentration of a radionuclide is statistically greater than the background concentration of that radionuclide in the vicinity of a site or, in the case of structures, in similar materials using accepted measurement, survey, and statistical techniques.

"Dosimetry processor" means an individual or an organization that processes and evaluates individual monitoring devices in order to determine the radiation dose delivered to the monitoring devices.

"Filtering face piece (dust mask)" means a particulate respirator that operates under a negative pressure with a filter as an integral part of the face piece or with the entire face piece composed of the filtering medium, not equipped with elastomeric sealing surfaces and adjustable straps.

"Fit factor" means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

"Fit test" means the use of protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.

"Helmet" means a rigid respiratory inlet covering that also provides head protection against impact and penetration.

"Hood" means a respiratory inlet covering that completely covers the head, neck, and may also cover portions of the shoulders and torso.

"Inhalation class" (See "Class")

"Loose-fitting face piece" means a respiratory inlet covering that is designed to form a partial seal with the face.

"Lung class" (See "Class")

"Nationally tracked source" means a sealed source that contains a quantity equal to or greater than Category 1 or Category 2 levels of radioactive material listed in 10 CFR 20, Appendix E, revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. In this context sealed source does not mean material encapsulated solely for disposal, or nuclear material contained in any fuel assembly, subassembly, fuel rod, or fuel pellet.

"Negative pressure respirator (tight fitting)" means respiratory protective equipment in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.

"Nonstochastic effect" means a health effect, the severity of which varies with the dose and for which a threshold is believed to exist. Radiation-induced cataract formation is an example of a nonstochastic effect. For purposes of these rules, "deterministic effect" is an equivalent term and "threshold" means that which if not exceeded, poses no risk or likelihood of an effect to occur.

"Planned special exposure" means an infrequent exposure to radiation received while employed, but separate from and in addition to the annual occupational dose limits.

"Positive pressure respirator" means respiratory protective equipment in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

"Powered air-purifying respirator" or "PAPR" means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

"Pressure demand respirator" means a positive pressure, atmosphere-supplying respirator that admits breathing air to the face piece when the positive pressure is reduced inside the face piece by inhalation.

"Probabilistic effect" (See "Stochastic effect")

"Qualitative fit test" or "QLFT" means a pass or fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

"Quantitative fit test" or "QNFT" means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

"Reference Man" means a hypothetical aggregation of human physical and physiological characteristics determined by international consensus. These characteristics may be used by researchers and public health workers to standardize results of experiments and to relate biological insult to a common base. A description of Reference Man is contained in the International Commission on Radiological Protection report, ICRP Publication 23, "Report of the Task Group on Reference Man," published in 1975 by Pergammon Press, incorporated by reference and on file with the Agency and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

"Residual radioactivity" means radioactivity in structures, materials, soils, groundwater, or other media at a site, resulting from activities under a licensee's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee, but excludes background radiation. It also includes radioactive materials that remain at the site because of routine or accidental release of radioactive material at the site or a previous burial at the site, even if the licensee complied with reagent provisions of 12 A.A.C. 1.

"Respiratory protective equipment" means an apparatus, such as a respirator, used to reduce an individual's intake of airborne radioactive materials.

"Sanitary sewerage" means a system of public sewers for carrying off waste water and refuse, but excluding sewage treatment facilities, septic tanks, and leach fields owned or operated by the licensee or registrant.

"Self-contained breathing apparatus" or "SCBA" means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

"Stochastic effect" means a health effect that occurs randomly and for which the probability of the effect occurring, rather than its severity, is assumed to be a linear function of dose without a threshold. Hereditary effects and cancer incidence are examples of stochastic effects. For purposes of these rules, "probabilistic effect" is an equivalent term.

"Supplied-air respirator" or "SAR" or "airline respirator" means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

"Tight-fitting face piece" means a respiratory inlet covering that forms a complete seal with the face.

"User seal check" or "fit check" means an action conducted by the respirator user to determine if the respirator is properly seated to the face. Examples include negative pressure check, positive pressure check, irritant smoke check, or isoamyl acetate check.

"Very-high radiation area" means an area, accessible to individuals, in which radiation levels from radiation sources external to an individual's body could result in the individual receiving an absorbed dose in excess of 5 Gy (500 rad) in one hour at one meter from a radiation source or one meter from any surface that the radiation penetrates. (At very high doses received at high dose rates, units of absorbed dose, the gray and rad should be used, rather than units of dose equivalent, the sievert and rem).

"Weighting factor" wT for an organ or tissue (T) means the proportion of the risk of stochastic effects resulting from irradiation of that organ or tissue to the total risk of stochastic effects when the whole body is irradiated uniformly. For calculating the effective dose equivalent, the values of wT are:

ORGAN DOSE WEIGHTING FACTORS	
Organ or Tissue	**w_T**
Gonads	0.25
Breast	0.15
Red bone marrow	0.12
Lung	0.12
Thyroid	0.03
Bone surfaces	0.03
Remainder	0.30[a]
Whole Body	1.00[b]

[a] 0.30 results from 0.06 for each of five "remainder" organs, excluding the skin and the lens of the eye, that receive the highest doses.

[b] For the purpose of weighting the external whole body dose, for adding it to the internal dose, a single weighting factor, w_T = 1.0, has been specified. The use of other weighting factors for external exposure will be approved by the Agency on a case-by-case basis.

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Historical Note

Former Rule Section D.3, Former Section R12-1-403 repealed, new Section R12-1-403 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-404. Units and Quantities

A. Each licensee or registrant shall use the Standard International (SI) units becquerel, gray, sievert, and coulomb per kilogram, or the special units curie, rad, rem, and roentgen, including multiples and subdivisions, and shall clearly indicate the units of all quantities on records required by this Article.

B. The licensee or registrant shall make a clear distinction among the quantities entered on the records required by this Article, such as, total effective dose equivalent, total organ dose equivalent, shallow dose equivalent, lens dose equivalent, deep dose equivalent, or committed effective dose equivalent.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-405. Form of Records

A. A licensee or registrant shall ensure that each record required by this Article is legible throughout the specified retention period. The record shall be the original, a reproduced copy, or a microform, provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period. As an alternative the record may be stored in electronic media capable of producing legible records during the required retention period. Records, such as letters, drawings, and specifications, shall include all pertinent information, such as stamps, initials, and signatures. A licensee or registrant shall maintain adequate safeguards against tampering with and loss of records.

B. In the records required by this Article, a licensee or registrant may record quantities in SI units in parentheses following each of the required units, curie, rad, and rem, and include multiples and subdivisions.

C. Notwithstanding subsection (B), the licensee or registrant shall ensure that information is recorded in the International System of Units (SI) or in SI and the units specified in subsection (B) on each shipment manifest as required in R12-1-439(A).

D. A licensee or registrant shall make a clear distinction among the quantities entered on the records required by this Section (e.g., total effective dose equivalent, shallow-dose equivalent, lens dose equivalent, deep-dose equivalent, committed effective dose equivalent).

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-406. Implementation

Any existing license or registration condition that is more restrictive than this Article remains in force until amendment or renewal of the license or registration.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-407. Radiation Protection Programs

A. Each licensee or registrant shall develop, document, and implement a radiation protection program sufficient to ensure compliance with the provisions of Article 4.

B. The licensee or registrant shall use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and public doses that are as low as is reasonably achievable (ALARA).

C. The licensee or registrant shall, at intervals not to exceed 12 months, review the radiation protection program content and implementation.

D. To implement the ALARA requirements in subsection (B), and notwithstanding the requirements in R12-1-416, each licensee or registrant governed by A.A.C. Title 12, Chapter 1, Article 3 shall limit air emissions of radioactive material to the environment so that individual members of the public likely to receive the highest dose will not receive a total effective dose equivalent in excess of 0.1mSv (10 mrem) per year from the emissions. If a licensee or registrant subject to this requirement exceeds this limit, the licensee or registrant shall report the incident to the Agency, in accordance with R12-1-444, and take prompt corrective action to prevent additional violations.

E. Records.

1. Each licensee or registrant shall maintain records of the radiation protection program, including:
   a. The provisions of the program; and
   b. Audits and other reviews of program content and implementation.

2. A licensee or registrant shall retain the records required by subsection (E)(1)(a) for three years after the termination of the license or registration. The licensee or registrant shall retain the records required by subsection (E)(1)(b) for three years after the record is made.
3. The following licensees and registrants are exempt from the record requirements contained in this subsection:
   B6-General Medical
   C9-Gas Chromatograph
   C10-General Industrial
   D15-Possession Only
   E2-X-ray Machine class B
   E3-X-ray Machine class C

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25. 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-408. Occupational Dose Limits for Adults

A. Each licensee or registrant shall control the occupational dose to individual adults, except for planned special exposures required in R12-1-413, to the following dose limits:
1. An annual limit, which is the more limiting of:
   a. The total effective dose equivalent being equal to 0.05 Sv (5 rem): or
   b. The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 0.5 Sv (50 rem).
2. The annual limits to the lens of the eye, to the skin, and to the extremities which are:
   a. A lens dose equivalent of 0.15 Sv (15 rem), and
   b. A shallow dose equivalent of 0.5 Sv (50 rem) to the skin of the whole body or to the skin of any extremity.

B. Doses received in excess of the annual limits, including doses received during accidents, emergencies, and planned special exposures, shall be subtracted from the limits for planned special exposures that the individual may receive during the current year and during the individual's lifetime. See R12-1-413.

C. The assigned deep-dose equivalent and shallow-dose equivalent are, for the portion of the body receiving the highest exposure, determined as follows:
1. The deep-dose equivalent, lens dose equivalent, and shallow-dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or the results of individual monitoring are unavailable.
2. If a protective apron is worn and monitoring is conducted as specified in R12-1-419(B), the effective dose equivalent for external radiation shall be determined as follows:
   a. If only one individual monitoring device is used and it is located at the neck outside the protective apron, and the reported dose exceeds 25% of the limit specified in R12-1-408(A), the reported deep-dose equivalent value multiplied by 0.3 is the effective dose equivalent for external radiation; or
   b. When individual monitoring devices are worn, both under the protective apron at the waist and outside the protective apron at the neck, the effective dose equivalent for external radiation is assigned the value of the sum of the deep-dose equivalent reported for the individual monitoring device located at the waist under the protective apron multiplied by 1.5 and the deep-dose equivalent reported for the individual monitoring device located at the neck outside the protective apron multiplied by 0.04.
3. When the external exposure is determined by measurement with an external personal monitoring device, the deep-dose equivalent must be used in place of the effective dose equivalent, unless the effective dose equivalent is determined by a dosimetry method approved by the Agency. The assigned deep-dose equivalent shall be determined for the part of the body that receives the highest exposure. The assigned shallow-dose equivalent is the dose averaged over the contiguous 10 square centimeters of skin that receives the highest exposure. The deep-dose equivalent, lens-dose equivalent, and shallow-dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or the results of individual monitoring are unavailable.

D. Derived air concentration (DAC) and annual limit on intake (ALI) values are presented in Table I of Appendix B and may be used to determine the individual's dose and to demonstrate compliance with the occupational dose limits.

E. Notwithstanding the annual dose limits, the licensee shall limit the soluble Uranium intake by an individual to 10 milligrams in a week in consideration of chemical toxicity. See footnote 3 of Appendix B.

F. The licensee or registrant shall reduce the dose that an individual may receive in the current year by the amount of occupational dose received while employed occupationally as a radiation worker by all previous employers. See R12-1-412.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 12

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A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-409. Summation of External and Internal Doses

A. If a licensee or registrant is required to monitor according to both R12-1-419(B) and (C), the licensee or registrant shall add external and internal doses, and use the sum to demonstrate compliance with dose limits. If the licensee or registrant is required to monitor only according to R12-1-419(B) or only according to R12-1-419(C), summation is not required to demonstrate compliance with dose limits. The licensee or registrant may demonstrate compliance with the requirements for summation of external and internal doses according to subsections (B), (C), and (D). The dose equivalents for the lens of the eye, the skin, and the extremities are not included in the summation but are subject to separate limits (see R12-1-408(A)(2)).

B. If the only intake of radionuclides is by inhalation, the total effective dose equivalent limit is not exceeded if the sum of the deep-dose equivalent divided by the total effective dose equivalent limit, and one of the following, does not exceed unity (1):
1. The sum of the fractions of the inhalation ALI for each radionuclide, or
2. The total number of derived air concentration-hours (DAC-hours) for all radionuclides divided by 2,000, or
3. The sum of the calculated committed effective dose equivalents to all significantly irradiated organs or tissues (T) calculated from bioassay data using applicable biological models and expressed as a fraction of the annual limit. For purposes of this requirement, an organ or tissue is deemed to be significantly irradiated if, for that organ or tissue, the product of the weighting factors, W_T, and the committed dose equivalent, $H_{T,50}$, per unit intake is greater than 10% of the maximum weighted value of $H_{T,50}$, that is, $w_T H_{T,50}$, per unit intake for any organ or tissue.

C. If the occupationally exposed individual also receives an intake of radionuclides by oral ingestion greater than 10% of the applicable oral ALI, the licensee or registrant shall account for this intake and include it in demonstrating compliance with the limits.

D. The licensee or registrant shall evaluate and, to the extent practical, account for intakes through wounds or skin absorption. The intake through intact skin has been included in the calculation of DAC for Hydrogen-3 and does not need to be evaluated or accounted for according to this subsection.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-410. Determination of External Dose from Airborne Radioactive Material

A. Each licensee shall, when determining the dose from airborne radioactive material, include the contribution to the deep-dose equivalent, lens dose equivalent, and shallow dose equivalent from external exposure to the radioactive cloud. See Appendix B, footnotes 1 and 2.

B. Airborne radioactivity measurements and DAC values shall not be used as the primary means to assess the deep-dose equivalent when the airborne radioactive material includes radionuclides other than noble gases or if the cloud of airborne radioactive material is not relatively uniform. The determination of the deep-dose equivalent to an individual shall be based upon measurements using instruments or individual monitoring devices.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended effective June 20, 1990 (Supp. 90-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-411. Determination of Internal Exposure

A. For purposes of assessing dose used to determine compliance with occupational dose equivalent limits, each licensee or registrant shall, when required according to R12-1-419, take suitable and timely measurements of:
1. Concentrations of radioactive materials in air in work areas,
2. Quantities of radionuclides in the body,
3. Quantities of radionuclides excreted from the body, or
4. Combinations of these measurements,

B. Unless respiratory protective equipment is used, as provided in R12-1-425, or the assessment of intake is based on bioassays, the licensee or registrant shall assume that an individual inhales radioactive material at the airborne concentration in which the individual is present.

C. When specific information on the physical and biochemical properties of the radionuclides taken into the body or the behavior of the material in an individual is known, the licensee or registrant may:
1. Use that information to calculate the committed effective dose equivalent, and, if used, the licensee or registrant shall document that information in the individual's record;
2. Upon prior approval of the Agency, adjust the DAC or ALI values to reflect the actual physical and chemical characteristics of airborne radioactive material, for example, aerosol size distribution or density; and
3. Separately assess the contribution of fractional intakes of Class D, W, or Y compounds of a given radionuclide to the committed effective dose equivalent. See Appendix B.

D. If the licensee or registrant chooses to assess intakes of Class Y material using the measurements given in subsection (A)(2) or (3), the licensee or registrant may delay the recording and reporting of the assessments for periods up to seven months, unless otherwise required by R12-1-444 or R12-1-445. This delay permits the licensee or registrant to make additional measurements basic to the assessments.

E. If the identity and concentration of each radionuclide in a mixture are known, the fraction of the DAC applicable to the mixture for use in calculating DAC-hours is either:
1. The sum of the ratios of the concentration to the appropriate DAC value, that is, D, W, or Y from Appendix B for each radionuclide in the mixture; or
2. The ratio of the total concentration for all radionuclides in the mixture to the most restrictive DAC value for any radionuclide in the mixture.

F. If the identity of each radionuclide in a mixture is known, but the concentration of one or more of the radionuclides in the mixture is not known, the DAC for the mixture is the most restrictive DAC of any radionuclide in the mixture.

G. If a mixture of radionuclides in air exists, a licensee may disregard certain radionuclides in the mixture if:
1. The licensee uses the total activity of the mixture to demonstrate compliance with the dose limits in R12-1-408 and complies with the monitoring requirements in R12-1-419;
2. The concentration of any radionuclide disregarded is less than 10% of its DAC; and
3. The sum of these percentages for all of the radionuclides disregarded in the mixture does not exceed 30%.

H. When determining the committed effective dose equivalent, the following information may be considered:
1. In order to calculate the committed effective dose equivalent, the licensee may assume that the inhalation of 1 ALI, or an exposure of 2,000 DAC-hours, results in a committed effective dose equivalent of 0.05 Sv (5 rem) for radionuclides that have their ALls or DACs based on the committed effective dose equivalent.
2. For an ALI and the associated DAC determined by the nonstochastic organ dose limit of 0.5 Sv (50 rem), the intake of radionuclides that would result in a committed effective dose equivalent of 0.05 Sv (5 rem), that is, the stochastic ALI, is listed in parentheses in Table I of Appendix B. The licensee may, as a simplifying assumption, use the stochastic ALI to determine committed effective dose equivalent. However, if the licensee or registrant uses the stochastic ALI, the licensee shall also demonstrate that the limit in R12-1-408(A)(1)(b) is met.

Historical Note

Former Rule Section D.101; Former Section R12-1-411 repealed, new Section R12-1-411 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Amended subsection (F) effective June 26, 1987 (87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-412. Determination of Prior Occupational Dose

A. For each individual who is likely to receive in a year an occupational dose that requires monitoring according to R12-1-419 the licensee shall:
1. Determine the occupational radiation dose received during the current year, and
2. Attempt to obtain the records of lifetime cumulative occupational radiation dose.

B. Before permitting an individual to participate in a planned special exposure, the licensee or registrant shall determine:
1. The internal and external doses from all previous planned special exposures; and
2. All doses in excess of the limits received during the lifetime of the individual, including doses received during accidents and emergencies; and
3. All lifetime, cumulative, occupational radiation doses.

C. In complying with the requirements of subsection (A), a licensee or registrant shall:
1. Accept, as a record of the occupational dose that the individual received during the current year, a written and signed statement from the individual, or from the individual's most recent employer for work involving radiation exposure, that discloses the nature and the amount of any occupational dose that the individual received during the current year; and
2. Accept, as the record of lifetime cumulative radiation dose, an up-to-date Agency Form Y (available from the Agency) or equivalent, signed by the individual and countersigned by an appropriate official of the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the licensee or registrant; and
3. Obtain reports of the individual's dose equivalent from the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the licensee or registrant, by telephone, telegram, facsimile, or letter. The licensee or registrant shall request a written verification of the dose data if the authenticity of the transmitted report cannot be established.

D. Records.
1. The licensee or registrant shall record the exposure history, as required by subsection (A), on Agency Form Y (available from the Agency) or a similar clear and legible record of all the information required by this subsection. The form or record shall show each period in which the individual received occupational exposure to radiation or radioactive material and shall be signed by the individual who received the exposure. For each period for which the licensee or registrant obtains reports, the licensee or registrant shall use the dose shown in the report for preparing Agency Form Y or its equivalent. For any period in which the licensee or registrant does not obtain a report, the licensee or registrant shall place a notation on Agency Form Y or its equivalent indicating each period of time for which there is no data.
2. The licensee or registrant is not required to reevaluate the separate external dose equivalents and internal committed dose equivalents or intakes of radionuclides assessed according to the rules in Article 4 in effect before January 1, 1994. Occupational exposure histories obtained and recorded on Agency Form Y or its equivalent before January 1, 1994, would not have included effective dose equivalent but may be used in the absence of specific information on the intake of radionuclides by the individual.

3. If the licensee or registrant is unable to obtain a complete record of an individual's current and previously accumulated occupational dose, the licensee or registrant shall:
   a. In establishing administrative controls under R12-1-408(F) for the current year, reduce the allowable dose limit for the individual by 12.5 mSv (1.25 rem) for each quarter for which records were unavailable and the individual was engaged in activities that could have resulted in occupational radiation exposure; and
   b. Not subject the individual to planned special exposures.
4. The licensee or registrant shall retain current and prior records on Agency Form Y or its equivalent for three years after the Agency terminates each pertinent license or registration requiring this record. The licensee or registrant shall retain records used in preparing Agency Form Y or its equivalent for three years after the record is made.

Historical Note

Former Rule Section D.102; Former Section R12-1-412 repealed, new Section R12-1-412 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-413. Planned Special Exposures

A. A licensee or registrant may authorize an adult worker to receive doses in addition to and accounted for separately from the doses received under the limits specified in R12-1-408, provided that each of the following conditions is satisfied:
1. The licensee or registrant authorizes a planned special exposure only in an exceptional situation when alternatives that might avoid the dose estimated from the planned special exposure are unavailable or impractical.
2. The licensee or registrant, and employer if the employer is not the licensee or registrant, specifically authorizes the planned special exposure, in writing, before the exposure occurs.
3. Before a planned special exposure, the licensee or registrant ensures that each individual involved is:
   a. Informed in writing of the purpose of the planned special exposure;
   b. Informed in writing of the estimated doses, associated potential risks, and specific radiation levels or other conditions that might be involved in performing the task; and
   c. Instructed in the measures to be taken to keep the dose ALARA, considering other risks that may be present.
4. Before permitting an individual to participate in a planned special exposure, the licensee or registrant shall ascertain prior doses as required by R12-1-412(B) for each individual involved.
5. Subject to R12-1-408(B), the licensee or registrant shall not authorize a planned special exposure that would cause an individual to receive a dose from all planned special exposures and all doses that exceed:
   a. The numerical value of any of the dose limits in R12-1-408(A) in any year, and
   b. Five times the annual dose limits in R12-1-408(A) during the individual's lifetime.
6. The licensee or registrant shall maintain records of a planned special exposure in accordance with subsections (B) and (C) and submit a written report to the Agency within 30 days after the date of any planned special exposure conducted in accordance with this Section, informing the Agency that a planned special exposure was conducted and indicating the date the planned special exposure occurred and the information required by subsection (B).
7. The licensee or registrant shall record the best estimate of the dose resulting from the planned special exposure in the individual's record and inform the individual, in writing, of the dose within 30 days after the date of the planned special exposure. The dose from a planned special exposure shall not be considered in controlling future occupational dose of the individual according to R12-1-408(A) but shall be included in evaluations required by subsections (A)(4) and (A)(5).

B. Records.
1. For each planned special exposure, the licensee or registrant shall maintain records that describe:
   a. The exceptional circumstances requiring the use of a planned special exposure,
   b. The name of the management official who authorized the planned special exposure and a copy of the signed authorization,
   c. What actions were necessary,
   d. Why the actions were necessary,
   e. What precautions were taken to assure that doses were minimized in accordance with R12-1-407(B),
   f. What individual and collective doses were expected,
   g. The doses actually received in the planned special exposure, and
   h. The process through which the employee involved in the planned special exposure has been informed in writing of the information contained in subsection (A)(3).
2. The licensee or registrant shall retain the records for three years after the Agency terminates each pertinent license or registration.

C. A licensee shall submit a report to the Agency no later than 30 days after a planned special exposure conducted in accordance with subsection (A). The report shall contain the date of the planned exposure and the information required by subsection (B).

Historical Note

Former Rule Section D.103. Former Section R12-1-413 repealed, new Section R12-1-413 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-414. Occupational Dose Limits for Minors

The annual occupational dose limits for minors are 10% of the annual occupational dose limits specified for adult workers in R12-1-408.

Historical Note

Former Rule Section D. 104; Former Section R12-1-414 repealed, new Section R12-1-414 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3).

R12-1-415. Dose Equivalent to an Embryo or Fetus

A. A licensee or registrant shall ensure that the dose equivalent to an embryo or fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 5 mSv (0.5 rem). Records shall be maintained according to R12-1-419(D)(4) and (5).

B. The licensee or registrant shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman to satisfy the limit in subsection (A).

C. For purposes of this Section, the dose equivalent to the embryo or fetus is the sum of:

1. The deep-dose equivalent to the declared pregnant woman; and
2. The dose equivalent to the embryo or fetus resulting from radionuclides in the embryo or fetus and radionuclides in the declared pregnant woman.

D. If the dose equivalent to the embryo or fetus is found to have exceeded 5 mSv (0.5 rem) or is within 0.5 mSv (0.05 rem) of this dose by the time the woman declares the pregnancy to the licensee or registrant, the licensee or registrant shall be deemed to be in compliance with subsection (A) if the additional dose equivalent to the embryo or fetus does not exceed 0.5 mSv (0.05 rem) during the remainder of the pregnancy.

Historical Note

Former Rule Section D. 105; Former Section R12-1-415 repealed, new Section R12-1-415 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-416. Dose Limits for Individual Members of the Public

A. Each licensee or registrant shall conduct operations so that:

1. The total effective dose equivalent to any individual member of the public from the licensed or registered operation does not exceed 1 mSv (0.1 rem) in a year, excluding the dose contribution from background radiation, medical administration of radiation, exposure to an individual who has been administered radioactive material and released in accordance with R12-1-719, voluntary participation in a medical research program, and the licensee's or registrant's disposal of radioactive material into sanitary sewerage in accordance with R12-1-436; and
2. The dose in any unrestricted area from an external source excluding the dose contribution from an individual who has been administered radioactive material and released in accordance with R12-1-719, does not exceed 0.02 mSv (0.002 rem) in any one hour.

B. Registrants possessing radiation machines in operation before August 10, 1994, are exempt from the requirement in subsection (A)(1). Operation of these machines shall be conducted so that the total effective dose equivalent to any individual member of the public does not exceed 5 mSv (0.5 rem) in a year.

C. A licensee, registrant, or an applicant for a license or registration may apply for Agency authorization to operate with an annual dose limit of 5 mSv (0.5 rem) for an individual member of the public. The application shall include the following information:

1. An explanation of the need for and the expected duration of operations in excess of the limit in subsection (A), and
2. The licensee's or registrant's program to assess and control dose within the 5 mSv (0.5 rem) annual limit; and
3. The procedures to be followed to maintain the dose in accordance with R12-1-407(B).

D. A licensee or registrant shall comply with the U.S. Environmental Protection Agency's applicable environmental radiation standards in 40 CFR 190, 2003 edition, published July 1, 2003, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which are incorporated by reference, on file with the Agency and contain no future editions or amendments.

E. The Agency may impose additional restrictions on radiation levels in unrestricted areas and on the total quantity of radionuclides that a licensee or registrant may release in effluents in order to restrict the collective dose.

F. Each licensee or registrant shall make or cause to be made surveys of radiation levels in unrestricted areas and radioactive materials contained in effluents released to unrestricted areas.

G. Each licensee or registrant shall:

1. Demonstrate by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed or registered operation does not exceed the annual dose limit; or
2. Demonstrate that:
   a. The annual average concentrations of radioactive material released in gaseous and liquid effluents at the boundary of the unrestricted area do not exceed the values specified in Appendix B, Table II; and
   b. If an individual were continually present in an unrestricted area, the dose from external sources would not exceed 0.02 mSv (0.002 rem) in an hour and 0.5 mSv (0.05 rem) in a year.

H. Upon approval from the Agency, the licensee or registrant may adjust the effluent concentration values in Appendix B, Table II for members of the public, to take into account the actual physical and chemical characteristics of the effluents, such as aerosol size distribution, solubility, density, radioactive decay equilibrium, and chemical form.

I. Each licensee or registrant shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public and shall retain the records for three years after the Agency terminates each pertinent license or registration.

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Historical Note

Former Rule Section D. 106; Former Section R12-1-416 repealed, new Section R12-1-416 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-417. Testing for Leakage or Contamination of Sealed Sources

A. A licensee in possession of any sealed source shall ensure that:
1. Each sealed source, except as specified in subsection (B), is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee has a certificate from the transferor indicating that the sealed source was tested within six months before transfer to the licensee or registrant.
2. Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed six months or at alternative intervals approved by the Agency, after evaluation of information specified by R12-1-311(D)(2) and (D)(3), or equivalent information specified by an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission.
3. Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed three months or at alternative intervals approved by the Agency, after evaluation of information specified by R12-1-311(D)(2) and (D)(3), or equivalent information specified by an Agreement State, a Licensing State, or the Nuclear Regulatory Commission.
4. Each sealed source suspected of damage or leakage is tested for leakage or contamination before further use.
5. Tests for leakage for all sealed sources, except brachytherapy sources manufactured to contain radium, are capable of detecting the presence of 185 Bq (0.005 μCi) of radioactive material on a test sample. The person conducting the test shall take test samples from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which contamination could accumulate. For a sealed source contained in a device, the person conducting the test shall obtain test samples when the source is in the "off" position.
6. The test for leakage from brachytherapy sources containing radium is capable of detecting an absolute leakage rate of 37 Bq (0.001 μCi) of Radon-222 in a 24-hour period when the collection efficiency for Radon-222 and its daughters has been determined with respect to collection method, volume, and time.
7. Tests for contamination from radium daughters are taken on the interior surface of brachytherapy source storage containers and are capable of detecting the presence of 185 Bq (0.005 μCi) of a radium daughter which has a half-life greater than four days.

B. A licensee need not perform tests for leakage or contamination on the following sealed sources:
1. Sealed sources containing only radioactive material with a half-life of less than 30 days;
2. Sealed sources containing only radioactive material as a gas;
3. Sealed sources containing 3.7 MBq (100 μCi) or less of beta or photon-emitting material or 370 kBq (10 μCi) or less of alpha-emitting material;
4. Sealed sources containing only Hydrogen-3;
5. Seeds of Iridium-192 encased in nylon ribbon; and
6. Sealed sources, except teletherapy and brachyherapy sources, which are stored, not being used, and identified as in storage. The licensee shall test each sealed source for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within six months before the date of use or transfer.

C. Persons specifically authorized by the Agency, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission shall perform tests for leakage or contamination from sealed sources.

D. A licensee shall maintain for Agency inspection test results in units of becquerel or microcurie.

E. The following is considered evidence that a sealed source is leaking:
1. The presence of 185 Bq (0.005 μCi) or more of removable contamination on any test sample.
2. Leakage of 37 Bq (0.001 μCi) of Radon-222 per 24 hours for brachytherapy sources manufactured to contain radium.
3. The presence of removable contamination resulting from the decay of 185 Bq (0.005 μCi) or more of radium.

F. A licensee shall immediately withdraw a leaking sealed source from use and shall take action to prevent the spread of contamination. The leaking sealed source shall be repaired or disposed of in accordance with this Article.

G. A licensee shall file a report with the Agency within five days if the test for leakage or contamination indicates a sealed source is leaking or contaminated. The report shall include the equipment involved, the test results, and the corrective action taken.

H. A licensee shall maintain records of the tests for leakage required in subsection (A) for three years after the records are made.

Historical Note

Former Rule Section D. 107; Former Section R12-1-417 repealed, new Section R12-1-417 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-418. Surveys and Monitoring

A. Each licensee or registrant shall make, or cause to be made, surveys if surveys are:
1. Necessary for the licensee or registrant to comply with Article 4, and
2. Reasonable under the circumstances to evaluate:
   a. The magnitude and extent of radiation levels,
   b. Concentrations or quantities of radioactive material, and
   c. The potential radiological hazards.

B. All personnel dosimeters, except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to any extremity, that require processing to determine the radiation dose and that are used by licensees and registrants to comply with R12-1-408, with other applicable provisions of these rules, or with conditions specified in a license or registration shall be processed and evaluated by a dosimetry processor:

1. Holding current personnel dosimetry accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology, according to NVLAP procedures published March 1994 as NIST Handbook 150, and NIST Handbook 150-4, published August 1994, which is incorporated by reference, published by the U.S. Government Printing Office, Washington D.C. 20402-9325, and on file with the Agency. The material incorporated by reference contains no future editions or amendments; and
2. Approved in this accreditation process for the type of radiation or radiations included in the NVLAP program that most closely approximates the type of radiation or radiations for which the individual wearing the dosimeter is monitored.

C. The licensee or registrant shall ensure that adequate precautions are taken to prevent a deceptive exposure of an individual monitoring device and that personnel monitoring devices are issued to, and used by only the individual to whom the monitoring device has been first issued during any reporting period.

D. A licensee shall ensure that survey instruments and personnel dosimeters that are used to make quantitative measurements are calibrated in accordance with R12-1-449.

E. Records.

1. Each licensee or registrant shall maintain records showing the results of surveys required by this Section and R12-1-433(B). The licensee or registrant shall retain these records for three years after the record is made.
2. The licensee or registrant shall retain each of the following records for three years after the Agency terminates the license or registration:
   a. Records of the survey results used to determine the dose from external sources of radiation, in the absence of or in combination with individual monitoring data, and provide an assessment of individual dose equivalents;
   b. Records of the results of measurements and calculations used to determine individual intakes of radioactive material and to assess an internal dose;
   c. Records showing the results of air sampling, surveys, and bioassays required according to R12-1-425(A)(3)(a) and (b); and
   d. Records of the measurement and calculation results used to evaluate the release of radioactive effluents to the environment.

Historical Note

Former Rule Section D. 108; Former Section R12-1-418 repealed, new Section R12-1-418 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-419. Conditions Requiring Individual Monitoring of External and Internal Occupational Dose

A. Each licensee or registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of this Article.

B. At minimum each licensee or registrant shall supply and require the use of individual monitoring devices by the following personnel:

1. Adults likely to receive, in one year, an intake in excess of 10% of the applicable ALI in Table I, Columns 1 and 2, of Appendix B;
2. Minors and declared pregnant women likely to receive, in one year, a committed effective dose equivalent in excess of 0.5 mSv (0.05 rem);
3. Adults likely to receive, in one year from radiation sources external to the body, a dose in excess of 10 percent of the limits in R12-1-408(A);
4. Minors likely to receive, in one year, from radiation sources external to the body, a deep dose equivalent in excess of 1 mSv (0.1 rem), a lens dose equivalent in excess of 1.5 mSv (0.15 rem), or a shallow dose equivalent to the skin or to the extremities in excess of 5 mSv (0.5 rem);
5. Declared pregnant women likely to receive during the entire pregnancy, from radiation sources external to the body, a deep dose equivalent in excess of 1 mSv (0.1 rem) (Note: All of the occupational doses in R12-1-408 continue to be applicable to the declared pregnant worker as long as the embryo/fetus dose limit is not exceeded.); and
6. Individuals entering a high or very high radiation area;
7. Individuals operating mobile x-ray equipment, except dental intraoral systems, as described in R12-1-608;
8. Individuals holding animals for diagnostic x-ray procedures, as described in R12-1-613;
9 Individuals servicing enclosed beam x-ray systems with bypassed interlocks, as described in R12-1-803;
10. Individuals operating open beam fluoroscopic systems and ancillary personnel working in the room when the fluoroscopic system is in use, except when relieved of this requirement by registration condition;
11. Individuals performing well logging, as described in Article 17; and
12. Individuals, wearing a finger or wrist individual monitoring device, during the operation of an open-beam or hand held analytical x-ray system or equipment with no safety devices as described in R12-1-806(C) and (F).
13. Individuals, wearing a finger or wrist individual monitoring device, performing repairs that require the presence of a primary beam of the analytical x-ray system or equipment, as described in R12-1-806(C) and (F).

C. Each licensee shall monitor the occupational intake of radioactive material by and assess the committed effective dose equivalent to:

1. Adults likely to receive, in one year, an intake in excess of 10 percent of the applicable ALI in Table 1, Columns 1 and 2, of Appendix B;
2. Minors likely to receive, in one year, a committed effective dose equivalent in excess of 1 mSv (0.1 rem); and
3. Declared pregnant women likely to receive, during the entire pregnancy, a committed effective dose equivalent in excess of 1 mSv (0.1 rem).

D. Each licensee or registrant shall require that all individual monitoring devices be located on individuals according to the following requirements:

1. An individual monitoring device, used to obtain the dose equivalent to an embryo or fetus of a declared pregnant woman according to R12-1-415, shall be located under the protective apron at the waist. A qualified expert shall be consulted to determine the dose equivalent to the embryo or fetus if this individual monitoring device has a monthly reported dose equivalent value that exceeds 0.5 millisieverts (50 millirem). For purposes of this subsection, the value for determining the dose equivalent to an embryo or fetus under R12-1-415(C), for occupational exposure to radiation from medical fluoroscopic equipment, is the value reported by the individual monitoring device worn at the waist underneath the protective apron, which has been corrected for the particular individual and the work environment by a qualified expert.
2. An individual monitoring device used for lens dose equivalent shall be located at the neck or an unshielded location closer to the eye, outside the protective apron.
3. If only one individual monitoring device is used to determine the effective dose equivalent for external radiation, according to R12-1-408(C)(2)(a), the device shall be located at the neck outside the protective apron. If a second individual monitoring device is used for the same purpose, it shall be located under the protective apron at the waist. A second individual monitoring device is required for a declared pregnant woman.
4. An individual, wearing an extremity personnel monitoring device, during the operation of an open-beam or hand-held analytical x-ray system with no safety devices or an individual performing repairs in the presence of a primary beam of the analytical x-ray system or equipment, as described in R12-1-806(C) and (F), shall wear the device on the individual's finger or wrist.

E. Records.

1. Each licensee or registrant shall maintain records of doses received by all individuals for whom monitoring is required according to this Section, and records of doses received during planned special exposures, accidents, and emergency conditions. Assessments of dose equivalent and records made using units in effect before January 1, 1994, need not be changed. These records shall include, when applicable:
   a. The deep-dose equivalent to the whole body, lens dose equivalent, shallow-dose equivalent to the skin, and shallow-dose equivalent to the extremities;
   b. The estimated intake of radionuclides;
   c. The committed effective dose equivalent assigned to the intake of radionuclides;
   d. The specific information used to assess the committed effective dose equivalent according to R12-1-411(A) and (C), and when required R12-1-419.
   e. The total effective dose equivalent when required by R12-1-409; and
   f. The total of the deep-dose equivalent and the committed dose to the organ receiving the highest total dose;
2. The licensee or registrant shall make entries of the records specified in subsection (D)(1), at intervals not to exceed one year;
3. The licensee or registrant shall maintain at the inspection site the records specified in subsection (D)(1), on Agency Form Z (available from the Agency), in accordance with the instructions for Agency Form Z, or in clear and legible records containing all the information required by this subsection;
4. The licensee or registrant shall maintain the records of dose to an embryo or fetus with the records of dose to the declared pregnant woman. The declaration of pregnancy, including the estimated date of conception, shall also be kept on file but may be maintained separately from the dose records;
5. The licensee or registrant shall retain each required form or record for three years after the Agency terminates each pertinent license or registration requiring the record.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-420. Control of Access to High Radiation Areas

A. A licensee or registrant shall ensure that each entrance or access point to a high radiation area has one or more of the following features:

1. A control device that, upon entry into the area, causes the level of radiation to be reduced below the level at which an individual might receive a deep-dose equivalent of 1 mSv (0.1 rem) in one hour at 30 centimeters from the source from any surface that the radiation penetrates;
2. A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or
3. Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entity.

B. In place of the controls required by subsection (A) for a high radiation area, the licensee or registrant may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.

C. The licensee or registrant may apply to the Agency for approval of alternative methods for controlling access to high radiation areas.

D. The licensee or registrant shall establish the controls required by subsections (A) and (C) in a way that does not prevent individuals from leaving a high radiation area.

E. The licensee or registrant is not required to control each entrance or access point to a room or other area that is a high radiation area solely because of the presence of radioactive materials prepared for transport and packaged and labeled in accordance with the regulations of the U.S. Department of Transportation, provided that:

1. The packages do not remain in the area longer than three days, and
2. The dose rate at 1 meter from the external surface of any package does not exceed 0.1 mSv (0.01 rem) per hour.

F. The licensee or registrant is not required to control entrance or access to rooms or other areas in hospitals solely because of the presence of patients containing radioactive material, provided that there are personnel in attendance who are taking the necessary precautions to prevent the exposure of individuals to radiation or radioactive material in excess of the established limits in Article 4 and operate in accordance with R12-1-407(B) and the provisions of the licensee's or registrant's radiation protection program.

G. The registrant is not required to control entrance or access to rooms or other areas containing sources of radiation capable of producing a high radiation area if the registrant has met all the specific requirements for access and control specified in other applicable Articles of these rules, such as Article 5 for industrial radiography, Article 6 for x-rays in the healing arts, and Article 9 for particle accelerators.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-421. Control of Access to Very-high Radiation Areas

A. In addition to the requirements in R12-1-420, a licensee or registrant shall institute measures to ensure that an individual is not able to gain unauthorized or inadvertent access to areas in which radiation levels could be encountered at 5 Gy (500 rad) or more in one hour at 1 meter from a source or from any surface that the radiation penetrates. This requirement does not apply to rooms or areas in which diagnostic x-ray systems are the only source of radiation or non-self-shielded irradiators.

B. The registrant is not required to control entrance or access to rooms or other areas containing sources of radiation capable of producing a very high radiation area, described in subsection (A), if the registrant has met all requirements for access and control specified in other applicable Articles of these rules, such as Article 5 for industrial radiography, Article 6 for x-rays in the healing arts, and Article 9 for particle accelerators.

C. Each licensee or registrant shall maintain records of tests made according to R12-1-422(B)(9) on entry control devices for very-high radiation areas. These records shall include the date, time, and results of each test of function.

D. The licensee or registrant shall retain the records required by this Section for three years after the record is made.

Historical Note

Former Rule Section D.201; Former Section R12-1-421 repealed, new Section R12-1-421 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-422. Control of Access to Irradiators (Very-high Radiation Areas)

A. This Section applies to licensees or registrants with sources of radiation in non-self-shielded irradiators. This Section does not apply to sources of radiation that are used in teletherapy, industrial radiography, or completely self-shielded irradiators in which the source of radiation is both stored and operated within the same shielding radiation barrier and, in the designed configuration of the irradiator, is always physically inaccessible to any individual and cannot create high levels of radiation in an area that is accessible to any individual.

B. A licensee or registrant shall ensure that each area in which radiation levels may exceed 5 Gy (500 rad) in one hour at 1 meter from a source that is used to irradiate materials meets the following requirements:

1. Each entrance or access point shall be equipped with entry control devices that:
   a. Function automatically to prevent any individual from inadvertently entering a very high radiation area;
   b. Permit deliberate entry into the area only after a control device is actuated that causes the radiation level within the area, from the source of radiation, to be reduced below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in one hour; and
   c. Prevent operation of the source of radiation if it would produce radiation levels in the area that could result in a deep-dose equivalent to an individual in excess of 1 mSv (0.1 rem) in one hour.
2. If the control devices required in subsection (B)(1) fail to function, additional control devices shall be provided so that:
   a. The radiation level within the area, from the source of radiation, is reduced below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in one hour; and
   b. Conspicuous visible and audible alarm signals are generated so that an individual entering the area is aware of the hazard. The individual who enters the very-high radiation area after an alarm signals shall be familiar with the process and equipment. Before entering, the individual shall ensure that a second individual is present and aware of the first person's actions.
3. The licensee or registrant shall provide control devices so that, upon failure or removal of physical radiation barriers other than the sealed source's shielded storage container:

a. The radiation level from the source of radiation is reduced below that at which it would be possible for an individual to receive a deep-dose equivalent in excess of 1 mSv (0.1 rem) in one hour, and
b. Conspicuous visible and audible alarm signals are generated so that potentially affected individuals are aware of the hazard. Potentially affected individuals shall notify the licensee or registrant of the failure or removal of the physical barriers.

4. When the shield for stored sealed sources is a liquid, the licensee or registrant shall provide means to monitor the integrity of the shield and to signal, automatically, loss of adequate shielding.
5. Physical radiation barriers that comprise permanent structural components, such as walls, that have no credible probability of failure or removal in ordinary circumstances need not meet the requirements of subsections (B)(3) and (4).
6. The licensee or registrant shall equip each area with devices that will automatically generate conspicuous visible and audible alarm signals to alert personnel in the area before the source of radiation can be put into operation and in time for any individual in the area to operate a clearly identified control device, installed in the area, and which can prevent the source of radiation from being put into operation.
7. The licensee or registrant shall control each area by use of administrative procedures and devices necessary to ensure that the area is cleared of personnel before each use of the source of radiation.
8. The licensee or registrant shall check each area by radiation measurement to ensure that, before the first individual's entry into the area after any use of the source of radiation, the radiation level from the source of radiation in the area will not expose an individual to a deep-dose equivalent in excess of 1 millisievert (0.1 rem) in one hour.
9. The licensee or registrant shall test the entry control devices required in subsection (B)(1) for proper functioning and keep records according to R12-1-421.
   a. Testing shall be conducted before initial operation with the source of radiation on any day, unless operations were continued uninterrupted from the previous day;
   b. Testing shall be conducted before resumption of operation of the source of radiation after any unintentional interruption;
   c. The licensee or registrant shall submit to the Agency a schedule of testing; and
   d. The licensee or registrant shall include in the schedule a listing of the periodic testing that will be followed.
10. The licensee or registrant shall not conduct operations, other than those necessary to place the source of radiation in a safe condition or effect repairs on controls, unless control devices are functioning properly.
11. The licensee or registrant shall control entry and exit portals that are used in transporting materials to and from the irradiation area, and that are not intended for use by personnel, with devices and administrative procedures necessary to physically protect and warn against inadvertent entry by an individual through one of the portals. Exit portals for irradiated materials shall be equipped to detect and signal the presence of any uncontained radioactive material that is carried toward an exit and automatically prevent contained radioactive material from being carried out of the area.

C. A licensee, registrant, or applicant seeking a license or registration for a source of radiation within the purview of subsection (B) that will be used in a variety of positions or in locations, such as open fields or forests, that make it impractical to comply with certain requirements of subsection (B) may apply to the Agency for approval of alternative safety measures. Alternative safety measures shall provide personnel protection at least equivalent to that specified in subsection (B). At least one of the alternative measures shall be an entry-preventing interlock control, based on a measurement of the radiation that ensures the absence of high radiation levels before an individual can gain access to the area where the sources of radiation are used.

D. A licensee or registrant shall provide the entry control devices required by subsections (B) and (C) in such a way that no individual will be prevented from leaving the area.

E. Records.
1. Each licensee or registrant shall maintain records of tests made according to subsection (B)(9) on entry control devices for very-high radiation areas. These records shall include the date and results of each test of function.
2. The licensee or registrant shall retain the records for three years from the date the record is made.

Historical Note

Former Rule Section D.202; Former Section R12-1-422 repealed, new Section R12-1-422 adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-423. Use of Process or Other Engineering Controls

A licensee shall use, to the extent practicable, process or other engineering controls, such as containment, decontamination, or ventilation, to control the concentration of radioactive material in air.

Historical Note

Former Rule Section D.203. Former Section R12-1-423 repealed, new Section R12-1-423 adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

R12-1-424. Use of Other Controls

A. If it is not practical to apply process or other engineering controls to control concentrations of radioactive material in the air to values below those that define an airborne radioactivity area, the licensee shall, consistent with maintaining the total effective dose equivalent according to R12-1-407(B), increase monitoring and limit intakes by one or more of the following means:
1. Control access,

2. Limit exposure times,
3. Use respiratory protection equipment, or
4. Use other controls.

B. If the licensee performs an ALARA analysis to determine whether or not respirators should be used, the licensee may consider safety factors other than radiological factors. The licensee shall also consider the impact of respirator use on workers' industrial health and safety.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4).

R12-1-425. Use of Individual Respiratory Protection Equipment

A. If a licensee assigns or permits the use of respiratory protection equipment to limit the intake of radioactive material,

1. Except as provided in subsection (A)(2), the licensee shall use only respiratory protection equipment that is tested and certified by the National Institute for Occupational Safety and Health (NIOSH).
2. If the licensee wishes to use equipment that has not been tested or certified by NIOSH, or for which there is no schedule for testing or certification, the licensee shall submit an application to the Agency and request authorization for use of this equipment, except as otherwise provided in this Section. The licensee shall provide evidence with the application that the material and performance characteristics of the equipment provide the asserted degree of protection under anticipated conditions of use. The licensee shall demonstrate the degree of protection by providing reliable test information.
3. The licensee shall implement and maintain a respiratory protection program that includes:
   a. Air sampling sufficient to identify the potential hazard, permit proper equipment selection, and estimate doses;
   b. Surveys and bioassays, as necessary, to evaluate actual intakes;
   c. Testing of respirators for operability (user seal check for face sealing devices and functional check for other devices) immediately before each use;
   d. Written procedures regarding:
      i. Monitoring, including air sampling and bioassays;
      ii. Supervision and training of respirator users;
      iii. Fit testing;
      iv. Respirator selection;
      v. Breathing air quality;
      vi. Inventory and control;
      vii. Storage, issuance, maintenance, repair, testing, and quality assurance of respiratory protection equipment;
      viii. Recordkeeping; and
      ix. Limitations on periods of respirator use and relief from respirator use;
   e. Determination by a physician that each individual user is able to use respiratory protection equipment:
      i. Before the initial fitting of a face-sealing respirator;
      ii. Before the first field use of a non-face-sealing respirator, and
      iii. Every 12 months after initial fitting or first use, or periodically at a frequency determined by a physician.
   f. Fit testing, with a fit factor ≥ 10 times the APF for a negative pressure device and a fit factor ≥ 500 for any positive pressure, continuous flow, and pressure-demand device, before the first field use of tight-fitting, face-sealing respirators and periodically after first use at least yearly. The licensee shall perform fit testing with the face piece operating in the negative pressure mode.
4. The licensee shall advise each respirator user that the user may leave the area at any time for relief from respirator use, in the event of equipment malfunction, physical or psychological distress, procedural or communication failure, significant deterioration of operating conditions, or any other condition that might require relief.
5. The licensee shall consider manufacturer limitations regarding respirator type and mode of use. When selecting a respiratory device, the licensee shall provide for vision correction, adequate communication, low temperature work environments, and the concurrent use of other safety or radiological protection equipment. The licensee shall use equipment in a manner that does not interfere with the proper operation of the respirator.
6. The licensee shall provide standby rescue persons whenever one-piece atmosphere-supplying suits, or any combination of supplied air respiratory protection device and personnel protective equipment are used from which an unaided individual would have difficulty extricating himself or herself. The licensee shall equip standby rescue persons with respiratory protection devices or other apparatus designed for potential hazards and anticipated conditions of use. The standby rescue persons shall observe or otherwise maintain continuous communication with the workers (visual, voice, signal line, telephone, radio, or other suitable means), and be immediately available to assist them in case of a failure of the air supply or for any other reason that requires relief from distress. The licensee shall provide at least one standby rescue person for every five workers, who is immediately available to assist any worker using this type of equipment and provide effective emergency rescue if needed.
7. The licensee shall supply atmosphere-supplying respirators with respirable air of grade D quality or better as defined by the Compressed Gas Association in publication G-7.1, "Commodity Specification for Air," 1997 and included in the regulations of OSHA (29 CFR 1910.134(i)(1)(ii)(A) through (E), July 1, 2003, incorporated by reference and on file with the Agency, containing no future editions or amendments). Grade D quality air criteria include:

a. Oxygen content (v/v) of 19.5-23.5%;
b. Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
c. Carbon monoxide (CO) content of 10 ppm or less;
d. Carbon dioxide content of 1,000 ppm or less; and
e. Lack of noticeable odor.

8. The licensee shall ensure that no objects, materials, or substances, such as facial hair, or any conditions that interfere with the face-to-face piece seal or valve function, and that are under the control of the respirator wearer, are present between the skin of the wearer's face and the sealing surface of a tight-fitting respirator face piece.
9. In estimating the dose to individuals from intake of airborne radioactive materials, the licensee shall use the concentration of radioactive material in the air that is inhaled when respirators are worn, which is determined by dividing the ambient concentration in air without respiratory protection by the assigned protection factor. If the dose is later found to be greater than the estimated dose, the licensee shall modify the calculation using the corrected value. If the dose is later found to be less than the estimated dose, the licensee may modify the calculation using the corrected value.

B. The licensee shall use Appendix A to select equipment and associated assigned protection factors.

C. A licensee shall apply to the Agency for authorization to use assigned protection factors in excess of those specified in Appendix A. To apply for authorization the licensee shall:

1. State the reason for the higher protection factors; and
2. Demonstrate that the requested respiratory protective equipment provides the higher protection factors under the proposed conditions of use.

D. The licensee shall notify the Agency in writing at least 30 days before the date that respiratory protective equipment is first used according to subsection (A) or (C).

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4).

R12-1-426. Security of Stored Sources of Radiation

A licensee or registrant shall secure from unauthorized removal or access licensed or registered sources of radiation that are stored in unrestricted areas.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective February 25, 1985 (Supp. 85-1). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-427. Control of Sources of Radiation Not in Storage

A. A licensee shall control and maintain constant surveillance of licensed radioactive material that is in an unrestricted area and is not in storage or in a patient.

B. A registrant shall maintain control of radiation machines that are in an unrestricted area and not in storage.

Historical Note

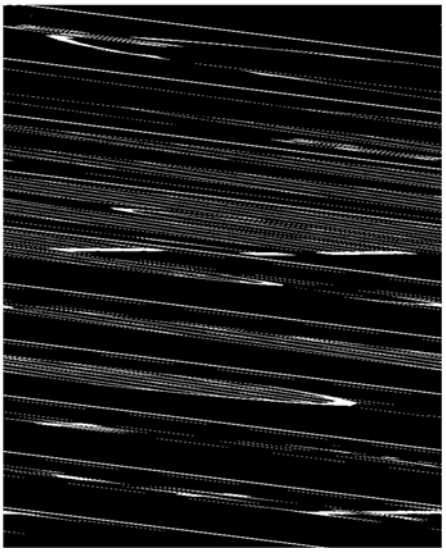
Adopted effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-428. Caution Signs

A. Unless otherwise authorized by the Agency, a licensee or registrant shall use the symbol prescribed by this Section with the colors magenta, or purple, or black on yellow background as the standard radiation symbol. The symbol prescribed is the three-bladed design as follows:

RADIATION SYMBOL

1. Cross-hatched area is to be magenta, purple, or black; and



2. The background is to be yellow.

B. Notwithstanding the requirements of subsection (A), licensees or registrants are authorized to label sources of radiation, source holders, or device components containing sources of radiation that are subjected to high temperatures, with conspicuously etched or stamped radiation caution symbols that lack the color scheme required in subsection A.

C. In addition to the contents of signs and labels prescribed in this Article, the licensee or registrant shall provide, on or near the required signs and labels, additional information to make individuals aware of potential radiation exposures and to minimize the exposures.

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-428 repealed, new Section R12-1-428 adopted effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-429. Posting

A. A licensee or registrant shall post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIATION AREA."

B. The licensee or registrant shall post each high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA."

C. The licensee or registrant shall post each very-high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "GRAVE DANGER, VERY HIGH RADIATION AREA."

D. The licensee shall post each airborne radioactivity area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, AIRBORNE RADIOACTIVITY AREA" or "DANGER, AIRBORNE RADIOACTIVITY AREA."

E. The licensee shall post each area or room in which there is used or stored an amount of licensed material exceeding 10 times the quantity of licensed material specified in Appendix C with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL(S)" or "DANGER, RADIOACTIVE MATERIAL(S)."

Historical Note

Former Section R12-1-429 repealed effective June 30, 1977 (Supp. 77-3). New Section 12-1-429 adopted effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-430. Exceptions to Posting Requirements

A. A licensee or registrant is not required to post caution signs in areas or rooms containing sources of radiation for periods of less than eight hours, if each of the following conditions is met:

1. The sources of radiation are constantly attended during these periods by an individual who takes precautions necessary to prevent exposure of individuals to sources of radiation in excess of limits established in this Article; and
2. The area or room is subject to the licensee's or registrant's control.

B. A licensee or registrant is not required to post a caution sign in a room or other area in a hospital that is occupied by an individual who has been administered radioactive material, if the individual meets the criteria for release in R12-1-719.

C. A licensee or registrant is not required to post a caution sign in a room or area because of the presence of a sealed source, provided the radiation level at 30 centimeters from the surface of the sealed source container or housing does not exceed 0.05 mSv (0.005 rem) per hour.

D. A hospital or clinic licensee is exempt from the posting requirements in R12-1-429 for a teletherapy room if:

1. Access to the room is controlled according to R12-1-731; and
2. Personnel in attendance take necessary precautions to prevent the inadvertent exposure of workers, other patients, and members of the public to radiation that exceeds the limits established in this Chapter.

E. A registrant is not required to post a caution sign in a room or area because of the presence of radiation machines used solely for diagnosis in the healing arts.

Historical Note

Former Section R12-1-430 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-430 adopted effective June 26, 1987 (Supp. 87-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-431. Labeling Containers and Radiation Machines

A. A licensee shall ensure that each container of licensed material is labeled with a durable, clearly visible radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL." The label shall also provide information, such as the radionuclides present, an estimate of the quantity of radioactivity, the date for which the radioactivity is estimated, radiation level, kind of material, and mass enrichment, to permit an individual handling or using a container, or working in the vicinity of a container, to take precautions to avoid or minimize exposure.

B. Before removal or disposal of an empty, uncontaminated container to an unrestricted area, each licensee shall remove or deface the radioactive material label or otherwise clearly indicate that the container no longer contains radioactive materials.

C. Each registrant shall ensure that each radiation machine is labeled in a conspicuous manner to caution an individual that radiation is produced when it is energized.

D. A licensee shall label each syringe and vial that contains a radiopharmaceutical used in the practice of medicine with the radiopharmaceutical content. Each syringe shield and vial shield shall be labeled, unless the label on the syringe or vial is visible when shielded. The label shall contain the radiopharmaceutical name or its abbreviation, the clinical procedure to be performed, or the name of the person being administered the radiopharmaceutical. Color-coding syringe shields and vial shields does not meet the labeling requirement.

Historical Note

Former Section R12-1-431 repealed effective June 30, 1977 (Supp. 77-3). New Section R12-1-431 adopted effective June 26, 1987 (Supp. 87-2). Amended effective November 5, 1993 (Supp. 93-4). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-432. Labeling Exemptions

A licensee is not required to label:

1. Containers holding licensed material in quantities less than the quantities listed in Appendix C;
2. Containers holding licensed material in concentrations less than those specified in Table III of Appendix B;
3. Containers attended by an individual who takes precautions necessary to prevent exposure of individuals to radiation in excess of the limits established in this Article;
4. Containers holding radioactive material that do not exceed the limits for excepted quantity or article as defined and limited in 49 CFR 173.403, and 173.421 through 173.424, and are transported, packaged, and labeled in accordance with 49 CFR 172.436 through 172.440 (Revised October 1, 2007, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
5. Containers that are accessible only to individuals authorized to handle, use, or work in the vicinity of the containers, if the contents are identified to these individuals by a readily available written record, retained as long as the container is in use for the purpose indicated on the record. (Examples of containers of this type are containers in locations such as water-filled canals, storage vaults, or hot cells.); or
6. Installed manufacturing or process equipment, such as piping and tanks.

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-433. Procedures for Receiving and Opening Packages

A. Each licensee who expects to receive a package containing quantities of radioactive material in excess of a Type A quantity, as defined in 10 CFR 71.4, January 1, 2005, which is incorporated by reference, published by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, and on file with the Agency. The material incorporated by reference contains no future editions or amendments. The licensee shall make arrangements to receive:

1. The package when the carrier offers it for delivery; or
2. The notification of the arrival of the package at the carrier's terminal and to take possession of the package expeditiously.

B. Each licensee shall:

1. Monitor the external surfaces of a package, labeled with a Radioactive White I, Yellow II, or Yellow III as specified in 49 CFR 172.403 and 172.436 through 172.440, October 1, 2004, which are incorporated by reference, published by the Office of Federal Register, National Archives and Records Administration, Washington, D.C. 20408, and on file with the Agency. The material incorporated by reference contains no future editions or amendments. The licensee shall test the package for radioactive contamination, unless the package contains only radioactive material in the form of gas or in special form, as defined in R12-1-102; and

2. Monitor the external surfaces of a package, labeled with a Radioactive White I, Yellow II, or Yellow III as specified in subsection (B)(1), for radiation levels unless the package contains quantities of radioactive material that are less than or equal to the Type A quantity, defined in 10 CFR 71, and referenced in subsection (A); and
3. Monitor all packages known to contain radioactive material for radioactive contamination and radiation levels if there is evidence of degradation of package integrity, such as packages that are crushed, wet, or damaged.

C. The licensee shall perform the monitoring required by subsection (B) as soon as practical after receipt of the package, but not later than three hours after the package is received at the licensee's facility if it is received during the licensee's normal working hours, or not later than three hours from the beginning of the next working day if it is received after working hours.

D. The licensee shall immediately notify the final delivery carrier and the Agency by telephone when:
1. Removable radioactive surface contamination exceeds 22 dpm/cm^2 for beta-gamma emitting radionuclides or 2.2 dpm/cm^2 for alpha-emitting radionuclides, wiping a minimum surface area of 300 square centimeters (46 square inches), or the entire surface if less than 300 square centimeters (46 square inches); or
2. External radiation levels exceed the limits of 2 millisieverts (200 millirem) per hour.

E. Each licensee shall:
1. Establish, maintain, and retain written procedures for safely opening packages that contain radioactive material, and
2. Ensure that the procedures are followed and that due consideration is given to special instructions for the type of package being opened.

F. Licensees transferring special form sources in vehicles owned or operated by the licensee to and from a work site are exempt from the contamination monitoring requirements of subsection (B) but are not exempt from the monitoring requirement in subsection (B) for measuring radiation levels that ensures that the source of radiation is still properly lodged in its shield.

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-434. General Requirements for Waste Disposal

A. A licensee shall dispose of licensed material only:
1. By transfer to an authorized recipient as provided in R12-1-439 or in Article 3 of these rules, or to the U.S. Department of Energy;
2. By decay in storage, according to R12-1-438(C)
3. By release in effluents within the limits in R12-1-416; or
4. As authorized according to R12-1-435, R12-1-436, R12-1-437, R12-1-438, or R12-1-438.01;

B. To receive waste that contains licensed material from other persons, a person shall be specifically licensed for:
1. Treatment prior to disposal,
2. Treatment or disposal by incineration,
3. Decay in storage,
4. Disposal at a land disposal facility licensed according to Article 3 of these rules, or
5. Storage until transferred to a storage or disposal facility authorized to receive the waste.

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-435. Method for Obtaining Approval of Proposed Disposal Procedures

For disposal of licensed material generated in the licensee's operations, a licensee or applicant for a license may apply to the Agency for approval of proposed disposal procedures, not otherwise authorized in this Chapter. Each application shall include:
1. A description of the waste containing licensed material to be disposed of, including the physical and chemical properties that have an impact on risk evaluation;
2. The proposed manner and conditions of waste disposal;
3. An analysis and evaluation of pertinent information on the nature of the environment;
4. The nature and location of other potentially affected facilities; and
5. An analysis and procedure to ensure that doses comply with R12-1-407(B), and are within the dose limits in this Article.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-436. Disposal by Release into Sanitary Sewerage System

A. A licensee may discharge licensed material into sanitary sewerage if each of the following conditions is satisfied:
1. The material is readily soluble or is readily dispersible biological material, in water;

2. The quantity of licensed radioactive material that the licensee releases into the sewer in one month divided by the average monthly volume of water released into the sewer by the licensee or registrant does not exceed the concentration listed in Appendix B, Table III,
3. If more than one radionuclide is released, the following conditions shall also be satisfied:
   a. The licensee shall determine the fraction of the limit in Appendix B, Table III represented by discharges into sanitary sewerage by dividing the actual monthly average concentration of each radionuclide released by the licensee or registrant into the sewer by the concentration of that radionuclide listed in Appendix B, Table III, and
   b. The sum of the fractions for each radionuclide required by subsection (A)(3)(a) does not exceed unity; and
   c. The total quantity of licensed radioactive material that the licensee releases into the sanitary sewerage in a year does not exceed 185 GBq (5 Ci) of Hydrogen-3, 37 GBq (1 Ci) of Carbon-14, and 37 GBq (1 Ci) of all other radioactive materials combined.

B. Excreta from individuals undergoing medical diagnosis or therapy with radioactive material are not subject to the limitations contained in subsection (A).

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-437. Treatment or Disposal by Incineration

A licensee shall treat or dispose of licensed material by incineration only in the amounts and forms specified in R12-1-438 or as specifically approved by the Agency according to R12-1-435.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-438. Disposal of Specific Wastes

A. A licensee may dispose of the following licensed material as if it were not radioactive:
1. 1.85 kBq (0.05 μCi), or less, of Hydrogen-3 or Carbon-14 per gram of medium used for liquid scintillation counting; and
2. 1.85 kBq (0. 05 μCi), or less, of Hydrogen-3 or Carbon-14 per gram of animal tissue, averaged over the weight of the entire animal.
3. 1.85 kBq (0.05 μCi), or less, of Iodine-125 per gram of medium used in analyzing in vitro laboratory samples and associated sample holders contaminated during the laboratory procedure.

B. A licensee shall not dispose of tissue, contaminated with radioactive material, according to subsection (A)(2) in a manner that would permit its use either as food for humans or as animal feed.

C. A licensee may hold radioactive material with a physical half-life of less than or equal to 120 days for decay in storage before disposal without regard to its radioactivity, and is exempt from the requirements of R12-1-434, provided:
1. The licensee monitors the radioactive material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and
2. The licensee removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee.

D. The licensee shall maintain records in accordance with R12-1-441.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-438.01 Disposal of Certain Radioactive Material

A. Licensed material as defined in the definition of radioactive material in R12-1-102 may be disposed of in accordance with this Article, even though it is not defined as low-level radioactive waste. Therefore, any licensed radioactive material being disposed of at a facility, or transferred for ultimate disposal at a facility licensed by the Agency, must meet the requirements of R12-1-439.

B. A licensee may dispose of radioactive material, as defined in the definition of radioactive material in R12-1-102, at a disposal facility authorized to dispose of such material in accordance with any federal or state solid or hazardous waste law, including the Solid Waste Disposal Act, as authorized under the Energy Policy Act of 2005.

Historical Note

Section R12-1-438.01 made by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-439. Transfer for Disposal and Manifests

A. Any licensee shipping radioactive waste intended for ultimate disposal at a licensed land disposal facility (for purposes of this rule "land disposal facility" means the land, buildings, structures, and equipment that are intended to be used for the disposal of radioactive waste. A geologic repository is not a land disposal facility) shall comply with 10 CFR 20.2006 and 10 CFR 20 Appendix G, published January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

B. An authorized representative of the waste generator shall provide the certification required in 10 CFR 20, Appendix G, Section II, which is incorporated by reference under subsection (A).

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Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-440. Compliance with Environmental and Health Protection Regulations

Nothing in R12-1-434, R12-1-435, R12-1-436, R12-1-437, R12-1-438, or R12-1-439 relieves the licensee from complying with other applicable federal, state, and local rules or regulations governing any other toxic or hazardous properties of materials that may be disposed of according to the rules listed in Article 4 of this Chapter.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-441. Records of Waste Disposal

A. Each licensee shall maintain records of the disposal of licensed materials made in accordance with R12-1-435, R12-1-436, R12-1-437, R12-1-438, and disposal by burial in soil, including burials authorized before February 25, 1985.

B. The licensee shall retain the records required by subsection (A) until the Agency terminates each pertinent license requiring the record. The licensee shall provide for the disposition of these records prior to license termination.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-442. Agency Inspection of Shipments of Waste

Each shipment of waste to a disposal facility, licensed under R12-1-1302(D)(11), is subject to inspection by the Agency before shipment or transportation. The waste shipper shall notify the Agency not less than five working days before the scheduled shipment or transportation of waste to a licensed disposal facility.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 5 A.A.R. 1812, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-443. Reports of Stolen, Lost, or Missing Licensed or Registered Sources of Radiation

A. Each licensee or registrant shall report to the Agency by telephone as follows:
1. Immediately after it becomes known to the licensee that licensed radioactive material in an aggregate quantity equal to or greater than 1,000 times the quantity specified in Appendix C is stolen, lost, or missing under circumstances that indicate to the licensee that an exposure could result to individuals in unrestricted areas;
2. Within 30 days after it becomes known to the licensee that licensed radioactive material in an aggregate quantity greater than 10 times the quantity specified in Appendix C is stolen, lost, or missing, and is still missing.
3. Immediately after it becomes known to the registrant that a radiation machine is stolen, lost, or missing.

B. Each licensee or registrant required to make a report according to subsection (A) shall, within 30 days after making the telephone report, make a written report to the Agency that contains the following information:
1. A description of the licensed or registered source of radiation involved, including, for radioactive material, the kind, quantity, and chemical and physical form; and, for radiation machines, the manufacturer, model, serial number, type, and maximum energy of radiation emitted;
2. A description of the circumstances under which the loss or theft occurred;
3. A statement of disposition, or probable disposition, of the licensed or registered source of radiation;
4. Exposures of individuals to radiation, circumstances under which the exposures occurred, and the possible total effective dose equivalent to persons in unrestricted areas;
5. Actions that have been taken, or will be taken, to recover the source of radiation; and
6. Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed or registered sources of radiation.

C. After filing the written report, the licensee or registrant shall also report additional substantive information on the loss or theft within 30 days after the licensee or registrant learns of the information.

D. The licensee or registrant shall provide the Agency with the names of individuals who may have received an exposure to radiation as a result of an incident reported to the Agency under subsection (B).

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-444. Reports of Exposures, Radiation Levels, and Concentrations of Radioactive Material Exceeding the Limits

A. In addition to the notification required by R12-1-445, each licensee or registrant shall submit a written report within 30 days after learning of any of the following:
1. Incidents for which notification is required by R12-1-445;
2. Doses in excess of any of the following:

a. The occupational dose limits for adults in R12-1-408;
b. The occupational dose limits for a minor in R12-1-414;
c. The limits for an embryo or fetus of a declared pregnant woman in R12-1-415;
d. The limits for an individual member of the public in R12-1-416;
e. Any applicable limit in the license or registration; or
f. The ALARA limit on air emissions in R12-1-407;

3. Levels of radiation or concentrations of radioactive material in:
   a. A restricted area in excess of applicable limits in the license or registration, or
   b. An unrestricted area in excess of 10 times the applicable limit in this Article or in the license or registration, whether or not this involves an exposure of any individual to a dose in excess of the limits in R12-1-416;

4. Radiation levels or concentrations of radioactive material in excess of the standards in 40 CFR 190, 2003 edition, published July 1, 2003, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408 which is incorporated by reference and on file with the Agency, if the licensee is subject to these federal standards, or there is a license condition referencing the 40 CFR 190 standards. This incorporation by reference contains no future editions or amendments.

B. Contents of reports.

1. Each report shall contain a description of each individual's exposure to radiation and radioactive material, including as applicable:
   a. Estimates of each individual's dose;
   b. The levels of radiation and concentrations of radioactive material involved;
   c. The cause of the elevated exposures, dose rates, or concentrations; and
   d. Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits, generally applicable environmental standards, and associated license or registration conditions.
2. Each report filed according to subsection (A) shall include for each occupationally overexposed individual: name, Social Security number, and date of birth. With respect to the limit for an embryo or fetus in R12-1-415, the identifiers in the report should be those of the declared pregnant woman. The report shall be prepared so that information regarding each overexposed individual is stated in a separate and detachable part of the report.

C. All licensees or registrants who make reports according to subsection (A) shall submit the report in writing to the Agency.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-445. Notification of Incidents

A. Immediate notification: Each licensee or registrant shall immediately report to the Agency any event involving a radiation source that may have caused or threatens to cause any of the following conditions:

1. An individual to receive:
   a. A total effective dose equivalent of 0.25 Sv (25 rem) or more;
   b. A lens dose equivalent of 0.75 Sv (75 rem) or more; or
   c. A shallow-dose equivalent to the skin or extremities of 2.5 Gy (250 rads) or more; or
2. The release of radioactive material, inside or outside of a restricted area, so if an individual had been present for 24 hours, the individual could have received five times the annual limit on intake (this subsection do not apply to a location where personnel are not normally stationed during routine operations, such as a hot-cell or process enclosure).

B. Twenty-four hour notification: Each licensee or registrant shall, within 24 hours of discovery of the event, report to the Agency any event involving loss of control of a radiation source possessed by the licensee or registrant that may have caused, or threatens to cause, any of the following conditions:

1. An individual to receive, in a period of 24 hours
   a. A total effective dose equivalent exceeding 0.05 Sv (5 rem);
   b. A lens dose equivalent exceeding 0.15 Sv (15 rem); or
   c. A shallow-dose equivalent to the skin or extremities exceeding 0.5 Gy (50 rads); or
2. The release of radioactive material, inside or outside of a restricted area, so, if an individual had been present for 24 hours, the individual could have received an intake in excess of one occupational annual limit of intake (this subsection does not apply to a location where personnel are not normally stationed during routine operations, such as a hot-cell or process enclosure).

C. A licensee or registrant shall prepare any report filed with the Agency according to this Section so that names of individuals who have received exposure to radiation or radioactive material are stated in a separate and detachable part of the report.

D. A licensee or registrant shall report to the Agency by telephone in response to the requirements of this Section.

E. If the Agency does not respond to the initial telephone call, the licensee or registrant shall report to the Department of Public Safety and continue with reasonable efforts to contact the Agency Duty Officer until contact is made.

F. The provisions of this Section do not apply to a dose that results from a planned special exposure, if the dose is within the limits for planned special exposures and reported according to R12-1-413(C).

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-446. Notifications and Reports to Individuals

A. Requirements for notification and reports to individuals of exposure to radiation or radioactive material are specified in R12-1-1004.

B. In addition to the reporting requirements in R12-1-444 and R12-1-445, each licensee or registrant shall notify the individual exposed to radiation or radioactive material. The notice to the exposed individual shall be provided no later than the date the report is submitted to the Agency and shall comply with R12-1-1004(A).

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-447. Vacating Premises

A. If a facility has been used for activities involving radioactive material a licensee shall notify the Agency in writing of the intent to vacate the facility no less than 45 days before relinquishing possession or control of the facility.

B. If a facility is contaminated with radioactive material, a licensee vacating the facility shall decontaminate it using Agency-approved procedures.

C. The Agency shall inspect a vacated facility to determine whether it is contaminated with radioactive material.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-448. Additional Reporting

A. Each licensee shall notify the Agency as soon as possible, but not later than four hours after the discovery of an event, and take immediate protective actions necessary to avoid exposures to radiation or radioactive materials that could exceed the limits specified in this Chapter or releases of licensed material that could exceed the limits specified in this Chapter. For purposes of this Section, event means a radiation accident involving a fire, explosion, gas release, or similar occurrence.

B. Each licensee shall notify the Agency within 24 hours after discovering any of the following events involving licensed material:

1. A contamination event that:
   a. Requires that anyone having access to the contaminated area be restricted for more than 24 hours by the imposition of additional radiological controls to prohibit entry into the area; and
   b. Involves a quantity of radioactive material greater than five times the lowest annual limit on intake specified in Appendix B of this Article; and
   c. Results in access to the contaminated area being restricted for a reason other than to allow radionuclides with a half-life of less than 24 hours to decay prior to decontamination.
2. An event in which equipment is disabled or fails to function as designed when:
   a. The equipment is part of a system designed to prevent releases exceeding the limits specified in this Chapter, to prevent exposures to radiation and radioactive materials exceeding limits specified in this Chapter, or to mitigate the consequences of an accident; and
   b. The equipment performs a safety function; and
   c. No redundant equipment is available and operable to perform the required safety function.
3. An event that requires urgent medical treatment of an individual with radioactive contamination on the individual's clothing or body.
4. A fire or explosion damaging any licensed material or any device, container, or equipment containing licensed material when:
   a. The quantity of material involved is greater than five times the lowest annual limit on intake specified in Appendix B of this Article, and
   b. The damage affects the integrity of the licensed material or its container.

C. Each licensee shall make reports required by subsections (A) and (B) above by telephone to the Agency. To the extent that the information is available at the time of notification, the information provided in these reports shall include:

1. The callers's name and call back telephone number;
2. A description of the event, including date and time;
3. The exact location of the event;
4. The isotopes, quantities, and chemical and physical form of the licensed material involved; and
5. Any personnel radiation exposure data available.

D. Each licensee who makes a report required by subsection (A) or (B) shall submit to the Agency a written follow-up report within 30 days of the initial report. Written reports prepared as required by other rules may be submitted to fulfill this requirement if the reports contain all of the required information in this subsection. The report shall include the following:

1. A description of the event, including the probable cause and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;
2. The exact location of the event;
3. The isotopes, quantities, and chemical and physical form of the licensed material involved;
4. Date and time of the event;
5. Corrective actions taken or planned and the results of any evaluations or assessments; and
6. The extent of personnel exposure to radiation or to radioactive materials without identification of each exposed individual by name.

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Historical Note

Adopted effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-449. Survey Instruments and Pocket Dosimeters

A. Each licensee or registrant shall ensure that survey instruments used to show compliance with this Article have been calibrated before first use, annually, and following repair, unless otherwise specified in this Chapter.

B. To satisfy the requirements of subsection (A), the licensee or registrant shall:
1. For each scale to be calibrated, calibrate two readings separated by at least 50 percent of scale rating; and
2. Conspicuously note on the instrument the apparent radiation level, in appropriate units for the type of survey instrument being used and the date of calibration.

C. Each licensee or registrant shall check each survey instrument for proper operation with the dedicated check source after calibration and before each use.

D. The licensee or registrant shall retain a record of each calibration required in subsection (A) for three years. The record shall include:
1. A description of the calibration procedure; and
2. A description of the source used, the certified dose rates from the source, the rates indicated by the instrument being calibrated, the correction factors deduced from the calibration data, the signature of the individual who performed the calibration, and the date of calibration.

E. To meet the requirements of subsections (A), (B), and (C), the licensee or registrant may obtain the services of persons licensed or registered by the Agency, the NRC, an Agreement State, or a Licensing State to perform calibrations of survey instruments. Licensing records of the service person authorization shall be maintained for three years by the licensee or registrant obtaining the service.

F. Each licensee or registrant shall ensure that pocket dosimeters used to show compliance with this Article:
1. Have been evaluated for proper operation annually and following repair, using a procedure acceptable to the Agency, unless a more frequent evaluation is required by license condition (Unless the dosimeter is electronic, the evaluation of the dosimeter shall include a drift test over a 24-hour period.); and
2. Meet the performance criteria listed in R12-1-523(C) and R12-1-1130(C).

G. Records of personnel dosimeter operational checks shall be maintained for three years.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-450. Sealed Sources

A. A licensee shall only receive, possess, and use radioactive materials contained in a sealed source that has been manufactured, labeled, packaged, and distributed in accordance with a specific license for its manufacture and distribution. The license to manufacture and distribute a sealed source shall be issued by the Agency, U.S. Nuclear Regulatory Commission, a Licensing State, or another Agreement State.

B. A licensee who possesses and uses a sealed source, or any device or equipment that contains a sealed source, shall follow the radiation safety and handling instructions approved by the Agency or follow the radiation safety and handling instructions furnished by the manufacturer on the label attached to the source, on the permanent container of the source, or in a leaflet or brochure that accompanies the source, and maintain the instructions in a legible and conveniently available form. If the handling instructions, leaflet, or brochure is no longer available and a copy cannot be obtained from the manufacturer, the licensee shall notify the Agency that the source handling information is no longer available.

C. Inventories:
1. An inventory shall be conducted at intervals not to exceed six months, unless a shorter interval is specified by license condition.
2. The records of the inventory shall be maintained for three years from the date of the inventory, and shall be available for inspection by the Agency.
3. The information recorded shall include:
   a. The kind and quantity of radioactive material,
   b. The model and serial number of the source or the device in which it is mounted,
   c. The location of the sealed source,
   d. The date of the inventory, and
   e. The signature of the person performing the inventory.

D. Any licensee who possesses and uses sealed sources in the practice of medicine shall conduct a physical inventory according to the requirements in 12 A.A.C. 1, Article 7.

E. Sealed sources, containing radioactive material, shall not be opened unless authorized by license condition.

F. Sealed sources and machines, devices, or equipment containing sealed sources shall be used in accordance with procedures described in the manufacturer's instructions and the safety precautions described in the Nuclear Regulatory Commission Sealed Sources and Device Registry, unless the instructions or precautions conflict with these rules or license condition.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp.

04-2).

R12-1-451. Termination of a Radioactive Material License or a Licensed Activity

A. As the final step before terminating a radioactive material use program licensed under R12-1-312, the licensee shall:
1. Certify to the Agency the disposition of all licensed material, including accumulated wastes, by submitting a complete description of a disposal plan with signed receipts from all licensed persons receiving the licensed material; and
2. Conduct a radiation survey of the premises where the licensed activities were carried out to demonstrate that the premises are suitable for release in accordance with the criteria for decommissioning in R12-1-452 and submit to the Agency a report of the results of this survey, unless the licensee demonstrates in some other manner acceptable to the Agency that the premises are suitable for release in accordance with the criteria for decommissioning in R12-1-452.

B. Before terminating a licensed program, each licensee authorized to possess radioactive material with a half-life greater than 120 days, in any unsealed form, shall forward the following records to the Agency:
1. Records of disposal of the licensed material required by R12-1-435, R12-1-436, R12-1-437, and R12-1-438; and
2. Records required by R12-1-418(D)(2)(d).

C. If a licensed activity is transferred or assigned in accordance with subsection (E), each licensee authorized to possess radioactive material with a half-life greater than 120 days, in any unsealed form, shall transfer the following records to the new licensee and the new licensee shall maintain these records until the license is terminated:
1. Records of disposal of licensed material required by R12-1-435, R12-1-436, R12-1-437, and R12-1-438; and
2. Records required by R12-1-418(D)(2)(d).

D. Before the Agency terminates a license, each licensee shall forward the records required by subsection (E) to the Agency.

E. A person licensed under R12-1-312 shall maintain required records regarding decommissioning of a facility in a location identified on the license until the Agency releases the site for unrestricted use. Before transfer or assignment of licensed activities, a licensee shall transfer all records required by this Section to the transferee. If records relating to facility decommissioning are kept for other purposes, the transferee shall refer to these records and provide their location on the transferee's application for a license. The transferee shall maintain the records until the Agency terminates the transferee's new license. The new licensee shall maintain the following decommissioning records for Agency review:
1. Records of spills or other occurrences involving the spread of contamination in and around the facility, equipment, or site. The licensee shall maintain a record of any instance when contamination remains after cleanup procedures or there is a reasonable likelihood that a contaminant has spread to an inaccessible area, as in the case of possible seepage into porous material such as concrete. These records shall include any known information that identifies any radionuclide involved and its quantity, form, and concentration.
2. As-built drawings showing modifications of structures and equipment in restricted areas where radioactive materials are used or stored, and locations of possible inaccessible contamination, such as buried pipes. If as-built drawings are referenced, the licensee need not index each relevant document individually. If drawings are not available, the licensee shall provide records with known information concerning these areas and locations, as prescribed in subsection (E)(1).
3. Except for areas that contain depleted uranium used only for shielding or as penetrators in unused munitions, a list, contained in a single document and updated every two years, of the following:
   a. Any area designated or formerly designated as a restricted area as defined under R12-1-102;
   b. Any area outside of a restricted area for which documentation is required under subsection (B)(1);
   c. Any area outside of a restricted area where wastes have been buried;
   d. Any area outside of a restricted area that contains regulated radioactive material that will require the licensee to either decontaminate the area for decommissioning under R12-1-452 or obtain disposal approval under R12-1-435; and
   e. Any restricted area where wastes have been buried.
4. Records of the cost estimate performed for the decommissioning funding plan or the amount certified by the Agency for decommissioning and the method for assuring funding, if either a funding plan or certification is used.

Historical Note

New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-452. Radiological Criteria for License Termination

A. General provisions and scope:
1. The criteria in this Section apply to the decommissioning of facilities licensed under Article 3 of this Chapter. The criteria do not apply to uranium and thorium recovery facilities already subject to 10 CFR 40, Appendix A, or to uranium solution extraction facilities.
2. The criteria in this Section do not apply to sites that:
   a. Have been decommissioned before the effective date of this Section; or
   b. Have previously submitted and received Agency approval of a license termination plan (LTP) or decommissioning plan.
3. If a site has been decommissioned and the license terminated in accordance with the criteria in this Section, the Agency shall not require additional cleanup unless, based on new information, the Agency determines that the criteria of this Section were not met and residual radioactivity at the site is a threat to public health and safety.
4. When calculating the TEDE for the average member of the critical group, a licensee shall use the peak annual dose expected within the first 1000 years after decommissioning.

B. Radiological criteria for unrestricted use. The Agency considers a site acceptable for unrestricted use if the licensee reduces residual radioactivity, distinguishable from background radiation, to a TEDE for an average member of the critical group that does not exceed 0.15 mSv (15 mrem) per year, including radiation from groundwater sources of drinking water, and the residual radioactivity is as low as reasonably achievable (ALARA). To determine the level that is ALARA, the Agency and the licensee shall take into account any detriment, such as deaths from transportation accidents, that is likely to result from decontamination and waste disposal.

C. Criteria for license termination under restrictive conditions. The Agency considers a site acceptable for license termination if the licensee meets all of the following restrictive conditions:

1. The licensee demonstrates that a reduction in residual radioactivity, necessary to comply with subsection (B), will result in net public or environmental harm or is not being made because the residual level of radioactivity is ALARA. To determine the level that is ALARA, the Agency and the licensee shall take into account any detriment, such as deaths from transportation accidents, that is likely to result from decontamination and waste disposal;

2. The licensee establishes one or more legally enforceable institutional controls that reduce residual radioactivity, distinguishable from background radiation, to a TEDE for the average member of the critical group that does not exceed (0.15 mSv) 15 mrem per year, including radiation from groundwater sources of drinking water;

3. The licensee demonstrates financial assurance that complies with R12-1-323(C), which enables an independent third party, including a governmental custodian of the site, to assume and carry out responsibilities for control and maintenance of the site;

4. The licensee submits a decommissioning plan or License Termination Plan (LTP) to the Agency, indicating the licensee's intent to decommission in accordance with R12-1-323 and specifying that the licensee intends to decommission by restricting use of the site. The licensee shall document in the LTP or decommissioning plan how comments from individuals and institutions in the community, who may be affected by the decommissioning, have been sought and addressed after analysis.
   a. If a licensee is restricting use of the site, the licensee shall seek comments from the public concerning the proposed decommissioning, regarding all of the following matters:
      i. Whether the institutional controls proposed by the licensee will reduce residual radioactivity, distinguishable from background radiation, to a TEDE for the average member of the critical group that does not exceed 0.15 mSv (15 mrem) per year; are enforceable; and do not impose an unreasonable burden on the local community or other affected parties; and
      ii. Whether the licensee has provided financial assurance that complies with R12-1-323(C), which enables an independent third party, including a governmental custodian of the site, to assume and carry out responsibilities for control and maintenance of the site;
   b. In seeking comments on the issues identified in subsection (C)(4)(a), the licensee shall provide for:
      i. Participation by representatives of a broad cross section of community interests that may be affected by the decommissioning;
      ii. An opportunity for a comprehensive discussion of the issues by all of the community representatives; and
      iii. A publicly available document that contains or access to each oral and written comment that reflects the viewpoints of community representatives on each issue and the extent of agreement or disagreement among representatives on each issue; and

5. The licensee reduces residual radioactivity, distinguishable from background radiation, at the site so that if the institutional controls are no longer in effect, the TEDE for the average member of the critical group is as low as reasonably achievable and does not exceed 1 mSv (100 mrem) per year; unless the licensee:
   a. Demonstrates that a further reduction in residual radioactivity necessary to comply with subsection (C)(5) is not technically achievable or economically feasible, or will result in net public or environmental harm;
   b. Provides for durable institutional controls; and
   c. Provides financial assurance that complies with R12-1-323(C), which enables an independent third party, including a governmental custodian of the site, to carry out periodic rechecks of the site, no less frequently than every five years; assures that each institutional control remains in place according to subsection (C)(3); and assumes and carries out responsibilities for maintenance of the institutional control.

D. Alternate criteria for license termination:

1. Based on circumstances that relate to a specific license, the Agency may terminate the license using the following alternate criteria for subsections (B) or (C)(2), if the licensee demonstrates that the TEDE from residual radioactivity, distinguishable from background radiation, for an average member of the critical group does not exceed 0.15 mSv (15 mrem) per year, and if the licensee:
   a. Ensures that public health and safety is protected by submitting an analysis of possible sources of exposure, prepared by a independent qualified expert, which indicates whether it is likely that the dose from all human-made sources combined, other than medical sources, is more than the 1 mSv/y (100 mrem/y) limit in R12-1-416;
   b. Employs to the extent practicable, restrictions on site use, according to the provisions of subsection (C) to minimize exposures at the site;
   c. Reduces doses to ALARA levels, taking into consideration any detriment, such as deaths from transportation accidents, that is likely to result from decontamination and waste disposal; and
   d. Submits a decommissioning plan or License Termination Plan (LTP) to the Agency that indicates the licensee's intent to decommission in accordance with R12-1-323, and specifies that the licensee proposes to decommission by use of alternate criteria. The licensee shall document in the decommissioning plan or LTP how comments from individuals and institutions in the community, who may be affected by the decommissioning, have been sought and addressed after analysis. In seeking comments, the licensee shall provide for:

i. Participation by representatives of a broad cross section of community interests that may be affected by the decommissioning;
ii. An opportunity for a comprehensive discussion of the issues by all of the community representatives; and
iii. A publicly available document that contains or access to each oral and written comment that reflects viewpoints of community representatives on each issue and the extent of agreement and disagreement among the representatives on each issue.

2. The use of alternate criteria to terminate a license requires approval by the Agency after consideration of any comments provided by the U.S. Environmental Protection Agency and any public comments submitted under subsection (E).

E. Public notification and public participation:

1. Upon the receipt of an LTP or decommissioning plan from a licensee, or a proposal by a licensee for release of a site under subsection (C) or (D), or whenever the Agency determines that notice will serve the public interest, the Agency shall notify and solicit comments from:
   a. Local and state governments in the vicinity of the site and any Indian Nation or other indigenous people that have treaty or statutory rights that could be affected by the decommissioning; and
   b. The U.S. Environmental Protection Agency.

◆2. To comply with subsection(E)(1) the Agency shall publish a notice in a local newspaper, send letters to state or local organizations on its mailing list, hold a public hearing that is readily accessible to individuals in the vicinity of the site, and solicit comments from the public.

F. Minimization of contamination. After the effective date of this Section, an applicant for a license, other than a renewal, shall describe in the application how facility design and procedures for operation will facilitate eventual decommissioning and minimize, to the extent practicable, the generation of radioactive waste and contamination of the facility and the environment.

G. The Agency considers a site acceptable for unrestricted use if the residual radioactivity, distinguishable from background radiation, is equal to or less than the values in Table 1.

Table 1
. Acceptable Surface Contamination1 Levels

Radionuclide[1]	**Average[2,3]**	**Maximum[2,4]**	**Removable[2,5]**
U-nat, U-235, U-238, and associated decay products	5,000 dpm/100 cm^2	15,000 dpm/100cm^2	1,000 dpm/100 cm^2
Transuranics, Ra-226, Ra-228, Th-230, Pa-231, Ac-227, I-125, I-129	100dpm/100c m^2	300 dpm/100cm^2	20dpm/100cm^2
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232 , I-126, I-131, I-133	1000 dpm/100cm^2	3000 dpm/100cm^2	200 dpm/100cm^2
◆Beta-gamma (Exceptions noted above)	5,000 dpm/100 cm^2	15,000 dpm/100cm^2	1,000 dpm/100 cm^2

[1] Where surface contamination by both alpha-and beta-gamma- emitting radionuclides exists, the limits established for alpha-and beta-gamma-emitting radionuclides apply independently.
[2] As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed on an instrument calibrated for background, efficiency, and geometric factors associated with the instrumentation, in accordance with R12-1-449.
[3] Measurements of average contamination level shall not be averaged over more than one square meter. For objects of less surface area, the average shall be derived for each object.
[4] The maximum contamination level applies to an area of not more than 100 cm^2.
[5] The amount of removable radioactive material per 100 cm^2 of surface area shall be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an instrument calibrated in

accordance with R12-1-449. When removable contamination on objects of surface area A (where A is less than 100 sq. cm) is determined, the entire surface shall be wiped and the contamination level multiplied by 100/A to convert to a "per 100 sq. cm" basis.

Historical Note

New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-453. Reports to Individuals of Exceeding Dose Limits

Any licensee or registrant that reports a personnel exposure to the Agency in accordance with R12-1-413(A)(6), R12-1-444, or R12-1-452 shall:

1. Notify the exposed individual of the exposure addressed in the report; and
2. Transmit the report to the exposed individual at the same time the Agency is notified of the exposure.

Historical Note

New Section made by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-454. Nationally Tracked Sources

A. A licensee who manufactures, receives, transfers, disassembles, or disposes of a nationally tracked source shall complete and submit to the Nuclear Regulatory Commission's National Source Tracking System and the Agency, a National Source Tracking Transaction Report that contains the information required in 10 CFR 20.2207(a) through (e), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. The report shall be submitted by the close of the next business day after the transaction using a reporting method specified in 10 CFR 20.2207(f), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

B. The initial National Source Tracking Transaction Report shall contain the information required in subsection (A), be submitted using a method specified in 10 CFR 20.2207(f) and include the additional information required by 10 CFR 20.2207(h)(1) through (6), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. A licensee shall correct any error in previously filed National Source Tracking Transaction Reports or file a new report for any missed transaction within five business days of the discovery of the error or missed transaction in accordance with 10 CFR 20.2207(g), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

D. A licensee who receives a nationally tracked sealed source shall not disassemble the source unless specifically authorized to do so by the Agency.

Historical Note

New Section made by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-455. Security Requirements for Portable Gauges

A. A licensee that uses a portable gauge shall use a minimum of two independent controls to maintain security while:

1. Transporting a portable gauge; and
2. Storing a portable gauge.

B. Each control shall form a tangible barrier that will prevent unauthorized removal whenever a portable gauge is not under the control and constant surveillance of the licensee.

C. A licensee shall employ controls approved by the Agency.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

Appendix A. Assigned Protection Factors for Respirators[a]

	Operating mode	**Assigned Protection Factors**
I. Air Purifying Respirators [Particulate [b] only] [c]:		
Filtering face piece disposable [d]	Negative	([d])
Face piece, half [e]	Negative Pressure	10
Face piece, full	Negative Pressure	100
Face piece, half	Powered Air-purifying Respirators	50
Face piece, full	Powered Air-purifying Respirators	1000
Helmet/hood	Powered Air-purifying Respirators	1000
Face piece, loose-fitting	Powered Air-purifying Respirators	25
II. Atmosphere supplying respirators [particulate, gases and vapors[f]]:		
1. Air-line respirator:		
Face piece, half	Demand	10
Face piece, half	Continuous Flow	50
Face piece, half	Pressure Demand	50
Face piece, full	Demand	100
Face piece, full	Continuous Flow	1000
Face piece, full	Pressure Demand	1000
Helmet/hood	Continuous Flow	1000
Face piece, loose-fitting	Continuous Flow	25
Suit	Continuous Flow	([g])
2. Self-contained breathing Apparatus (SCBA):		
Face piece, full	Demand	[h]100
Face piece, full	Pressure Demand	[i]10,000
Face piece, full	Demand, Recirculating	[h]100
Face piece, full	Positive Pressure Recirculating	[i]10,000
III. Combination Respirators:		
Any combination of air-purifying and atmosphere-supplying respirators	Assigned protection factor for type and mode of operation as listed above	

[a] These assigned protection factors apply only in a respiratory protection program that meets the requirements of this Article. They are applicable only to airborne radiological hazards and may not be appropriate if chemical or other respiratory hazards exist instead of, or in addition to, radioactive hazards. A licensee shall comply with Department of Labor regulations, regarding selection and use of respirators for those circumstances.

Radioactive contaminants for which the concentration values in Table 1, Column 3 of Appendix B are based on internal dose due to inhalation may, in addition, present external exposure hazards at higher concentrations. Under these circumstances, limitations on occupancy may have to be governed by external dose limits.

[b] A licensee shall equip air purifying respirators of APF<100 with particulate filters that are at least 95 percent efficient. The licensee shall equip air purifying respirators of APF=100 with particulate filters that are at least 99 percent efficient. The licensee shall equip air purifying respirators of APF>100 with particulate filters that are at least 99.97 percent efficient.

[c] A licensee may apply to the Commission for the use of an APF greater than 1 for sorbent cartridges as protection against airborne radioactive gases and vapors, similar to radioiodine.

[d] A Licensee may permit an individual to use this type of respirator if the individual has not been medically screened or fit tested on the device, provided that no credit is taken for use of these respirators in estimation of intake or dose. It is also recognized that it is difficult to perform an effective positive or negative pressure pre-use user seal check on this type of device. All other respiratory protection program requirements listed in 10 CFR 20.1703, January 2000 Edition, and published January 1, 2000, apply and are incorporated by reference and available for review at the Agency and Secretary of State. This incorporation by reference contains no future editions or amendments. There is no assigned protection factor for these devices. However, a licensee may use an APF equal to 10 if the licensee can demonstrate a fit factor of at least 100 by use of a validated or evaluated, qualitative or quantitative fit test.

[e] Under-chin type only. No distinction is made in this appendix between elastomeric half-masks with replaceable cartridges and those designed with the filter medium as an integral part of the face piece (disposable or reusable disposable). Both types are acceptable as long as the seal area of the latter contains some substantial type of seal-enhancing material, such as rubber or plastic, two or more suspension straps are adjustable, the filter medium is at least 95 percent efficient, and all other requirements of this Article are met.

[f] The assigned protection factors for gases and vapors are not applicable to radioactive contaminants that present an absorption or submersion hazard. For tritium oxide vapor, approximately one-third of the intake occurs by absorption through the skin so that an overall protection factor of 3 is appropriate when atmosphere-supplying respirators are used to protect against tritium oxide. Exposure to radioactive noble gases is not considered a significant respiratory hazard and protective actions for these contaminants should be based on external (submersion) dose considerations.

[g] No NIOSH approval schedule is currently available for atmosphere supplying suits. This equipment may be used in an acceptable respiratory protection program as long as all the other minimum program requirements, with the exception of fit testing, are met. The minimum program requirements are provided in 10 CFR 20.1703.

[h] The licensee shall implement institutional controls to assure that these devices are not used in areas immediately dangerous to life or health (IDLH).

[i] This type of respirator may be used as an emergency device in unknown concentrations for protection against inhalation hazards. External radiation hazards and other limitations to permitted exposure such as skin absorption shall be taken into account in these circumstances. This device may not be used by any individual who experiences perceptible outward leakage of breathing gas while wearing the device.

Historical Note

Former Appendix A repealed; new Appendix A adopted effective June 30, 1977 (Supp. 77-3). Section repealed; new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

Appendix B. Annual Limits on Intake (ALI) and Derived Air Concentrations (DAC) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sanitary Sewerage

Introduction

For each radionuclide, Table I indicates the chemical form which is to be used for selecting the appropriate ALI or DAC value. The ALls and DACs for inhalation are given for an aerosol with an activity median aerodynamic diameter (AMAD) of 1 μm, micron, and for three classes (D,W,Y) of radioactive material, which refer to their retention (approximately days, weeks, or years) in the pulmonary region of the lung. This classification applies to a range of clearance half-times for D if less than 10 days, for W from 10 to 100 days, and for Y greater than 100 days. Table II provides concentration limits for airborne and liquid effluents released to the general environment. Table III provides concentration limits for discharges to sanitary sewerage.

Note:

The values in Tables I, II, and III are presented in the computer “E” notation. In this notation a value of 6E-02 represents a value of 6×10^{-2} or 0.06, 6E+2 represents 6×10^{2} or 600, and 6E+0 represents 6×10^{0} or 6.

Table I “Occupational Values”

Note that the columns in Table I of this Appendix captioned “Oral Ingestion ALI,” “Inhalation ALI,” and “DAC” are applicable to occupational exposure to radioactive material.

The ALIs in this Appendix are the annual intakes of given radionuclide by “Reference Man” which would result in either (1) a committed effective dose equivalent of 0.05 Sv (5 rem), stochastic ALI, or (2) a committed dose equivalent of 0.5 Sv (50 rem) to an organ or tissue, nonstochastic ALI. The stochastic ALIs were derived to result in a risk, due to irradiation of organs and tissues, comparable to the risk associated with deep-dose equivalent to the whole body of 0.05 Sv (5 rem). The derivation includes multiplying the committed dose equivalent to an organ or tissue by a weighting factor, W_T. This weighting factor is the proportion of the risk of stochastic effects resulting from irradiation of the organ or tissue, T, to the total risk of stochastic effects when the whole body is irradiated uniformly. The values of W_T are listed under the definition of weighting factor in R12-1-403. The nonstochastic ALIs were derived to avoid nonstochastic effects, such as prompt damage to tissue or reduction in organ function.

A value of $W_T = 0.06$ is applicable to each of the five organs or tissues in the "remainder" category receiving the highest dose equivalents, and the dose equivalents of all other remaining tissues may be disregarded. The following portions of the GI tract -- stomach, small intestine, upper large intestine, and lower large intestine -- are to be treated as four separate organs.

Note that the dose equivalents for an extremity, skin, and lens of the eye are not considered in computing the committed effective dose equivalent but are subject to limits that shall be met separately.

When an ALI is defined by the stochastic dose limit, this value alone is given. When an ALI is determined by the nonstochastic dose limit to an organ, the organ or tissue to which the limit applies is shown, and the ALI for the stochastic limit is shown in parentheses. Abbreviated organ or tissue designations are used:

LLI wall	=	lower large intestine wall,
St. wall	=	stomach wall,
Blad wall	=	bladder wall, and
Bone surf	=	Bone surface.

The use of the ALIs listed first, the more limiting of the stochastic and nonstochastic ALIs, will ensure that nonstochastic effects are avoided and that the risk of stochastic effects is limited to an acceptably low value. If, in a particular situation involving a radionuclide for which the nonstochastic ALI is limiting, use of that nonstochastic ALI is considered unduly conservative, the licensee may use the stochastic ALI to determine the committed effective dose equivalent. However, the licensee shall also ensure that the 0.5 Sv (50 rem) dose equivalent limit for any organ or tissue is not exceeded by the sum of the external deep-dose equivalent plus the internal committed dose equivalent to that organ, not the effective dose. For the case where there is no external dose contribution, this would be demonstrated if the sum of the fractions of the nonstochastic ALIs (ALI_{ns}) that contribute to the committed dose equivalent to the organ receiving the highest dose does not exceed unity, that is, Σ (intake (in μCi) of each radionuclide/ALI_{ns}) ≤ 1.0. If there is an external deep dose equivalent contribution of H_d, then this sum must be less than $1 - (H_d/50)$, instead of ≤ 1.0.

Note that the dose equivalents for an extremity, skin, and lens of the eye are not considered in computing the committed effective dose equivalent but are subject to limits that must be met separately.

The derived air concentration (DAC) values are derived limits intended to control chronic occupational exposures. The relationship between the DAC and the ALI is given by:

DAC = ALI(in μCi)/(2000 hours per working year x 60 minutes/hour x 2 x 10^4 ml per minute) = [ALI/2.4 x 10^9] μCi/ml,

where 2 x 10^4 ml is the volume of air breathed per minute at work by Reference Man under working conditions of light work.

The DAC values relate to one of two modes of exposure: either external submersion or the internal committed dose equivalents resulting from inhalation of radioactive materials. DACs based upon submersion are for immersion in a semi-infinite cloud of uniform concentration and apply to each radionuclide separately.

The ALI and DAC values include contributions to exposure by the single radionuclide named and any in-growth of daughter radionuclides produced in the body by decay of the parent. However, intakes that include both the parent and daughter radionuclides shall be treated by the general method appropriate for mixtures.

The values of ALI and DAC do not apply directly when the individual both ingests and inhales a radionuclide, when the individual is exposed to a mixture of radionuclides by either inhalation or ingestion or both, or when the individual is exposed to both internal and external irradiation. See R12-1-407. When an individual is exposed to radioactive materials which fall under several of the translocation classifications of the same radionuclide, such as Class D, Class W, or Class Y, the exposure may be evaluated as if it were a mixture of different radionuclides.

It should be noted that the classification of a compound as Class D, W, or Y is based on the chemical form of the compound and does not take into account the radiological half-life of different radionuclides. For this reason, values are given for Class D, W, and Y compounds, even for very short-lived radionuclides.

Table II "Effluent Concentrations"

The columns in Table II of this Appendix captioned "Effluents," "Air," and "Water" are applicable to the assessment and control of dose to the public, particularly in the implementation of the provisions of R12-1-415. The concentration values given in Columns 1 and 2 of Table II are equivalent to the radionuclide concentrations which, if inhaled or ingested continuously over the course of a year, would produce a total effective dose equivalent of 0.5 mSv (0.05 rem).

Consideration of nonstochastic limits has not been included in deriving the air and water effluent concentration limits because nonstochastic effects are presumed not to occur at or below the dose levels established for individual members of the public. For radionuclides, where the nonstochastic limit was governing in deriving the occupational DAC, the stochastic ALI was used in deriving the corresponding airborne effluent limit in Table II. For this reason, the DAC and airborne effluent limits are not always proportional as they were in earlier versions of Appendix A of Article 4.

The air concentration values listed in Table II, Column 1 were derived by one of two methods. For those radionuclides for which the stochastic limit is governing, the occupational stochastic inhalation ALI was divided by 2.4 x 10^9, relating the inhalation ALI to the DAC, as

explained above, and then divided by a factor of 300. The factor of 300 includes the following components: a factor of 50 to relate the 0.05 Sv (5 rem) annual occupational dose limit to the 0.1 rem limit for members of the public, a factor of 3 to adjust for the difference in exposure time and the inhalation rate for a worker and that for members of the public; and a factor of 2 to adjust the occupational values, derived for adults, so that they are applicable to other age groups.

For those radionuclides for which submersion, that is external dose, is limiting, the occupational DAC in Table I, Column 3 was divided by 219. The factor of 219 is composed of a factor of 50, as described above, and a factor of 4.38 relating occupational exposure for 2,000 hours per year to full-time exposure (8,760 hours per year). Note that an additional factor of 2 for age considerations is not warranted in the submersion case.

The water concentrations were derived by taking the most restrictive occupational stochastic oral ingestion ALI and dividing by 7.3×10^7. The factor of 7.3×10^7 (ml) includes the following components: the factors of 50 and 2 described above and a factor of 7.3×10^5 (ml) which is the annual water intake of Reference Man.

Note 2 of this Appendix provides groupings of radionuclides which are applicable to unknown mixtures of radionuclides. These groupings, including occupational inhalation ALIs and DACS, air and water effluent concentrations, and releases to sewer, require demonstrating that the most limiting radionuclides in successive classes are absent. The limit for the unknown mixture is defined when the presence of one of the listed radionuclides cannot be definitely excluded as being present either from knowledge of the radionuclide composition of the source or from actual measurements.

Table III “Releases to Sewers”
The monthly average concentrations for release to sanitary sewerage are applicable to the provisions in R12-1-435. The concentration values were derived by taking the most restrictive occupational stochastic oral ingestion ALI and dividing by 7.3×10^6 (ml). The factor of 7.3×10^6 (ml) is composed of a factor of 7.3×10^5 (ml), the annual water intake by Reference Man, and a factor of 10, such that the concentrations, if the sewage released by the licensee were the only source of water ingested by a Reference Man during a year, would result in a committed effective dose equivalent of 0.5 rem.

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LIST OF ELEMENTS

Name	Symbol	Atomic Number
Actinium	Ac	89
Aluminum	Al	13
Americium	Am	95
Antimony	Sb	51
Argon	Ar	18
Arsenic	As	33
Astatine	At	85
Barium	Ba	56
Berkelium	Bk	97
Beryllium	Be	4
Bismuth	Bi	83
Bromine	Br	35
Cadmium	Cd	48
Calcium	Ca	20
Californium	Cf	98
Carbon	C	6
Cerium	Ce	58
Cesium	Cs	55
Chlorine	Cl	17
Chromium	Cr	24
Cobalt	Co	27
Copper	Cu	29
Curium	Cm	96
Dysprosium	Dy	66
Einsteinium	Es	99
Erbium	Er	68
Europium	Eu	63
Fermium	Fm	100
Fluorine	F	9
Francium	Fr	87
Gadolinium	Gd	64
Gallium	Ga	31
Germanium	Ge	32
Gold	Au	79
Hafnium	Hf	72
Holmium	Ho	67
Hydrogen	H	1
Indium	In	49
Iodine	I	53
Iridium	Ir	77
Iron	Fe	26
Krypton	Kr	36
Lanthanum	La	57
Lead	Pb	82
Lutetium	Lu	71
Magnesium	Mg	12
Manganese	Mn	25

Name	Symbol	Atomic Number
Mendelevium	Md	101
Mercury	Hg	80
Molybdenum	Mo	42
Neodymium	Nd	60
Neptunium	Np	93
Nickel	Ni	28
Niobium	Nb	41
Nitrogen	N	7
Osmium	Os	76

Oxygen	O	8
Palladium	Pd	46
Phosphorus	P	15
Platinum	Pt	78
Plutonium	Pu	94
Polonium	Po	84
Potassium	K	19
Praseodymium	Pr	59
Promethium	Pm	61
Protactinium	Pa	91
Radium	Ra	88
Radon	Rn	86
Rhenium	Re	75
Rhodium	Rh	45
Rubidium	Rb	37
Ruthenium	Ru	44
Samarium	Sm	62
Scandium	Sc	21
Selenium	Se	34
Silicon	Si	14
Silver	Ag	47
Sodium	Na	11
Strontium	Sr	38
Sulfur	S	16
Tantalum	Ta	73
Technetium	Tc	43
Tellurium	Te	52
Terbium	Tb	65
Thallium	Tl	81
Thorium	Th	90
Thulium	Tm	69
Tin	Sn	50
Titanium	Ti	22
Tungsten	W	74
Uranium	U	92
Vanadium	V	23
Xenon	Xe	54
Ytterbium	Yb	70
Yttrium	Y	39
Zinc	Zn	30
Zirconium	Zr	40

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Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
	Average		Ingestion		Inhalation				
Atomic		Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
1	Hydrogen-3	Water, DAC includes							
			skin absorption	8E+4	8E+4	2E-5	1E-7	1E-3	1E-2
		Gas (HT or T_2) Submersion[1]: Use above values as HT and T_2 oxidize in air and in the body to HTO.							
4	Beryllium-7	W, all compounds except	4E+4	2E+4	9E-6	3E-8		6E-4	6E-3
			those given for Y						
		Y, oxides, halides, and							
			nitrates	-	2E+4	8E-6	3E-8	-	-
4	Beryllium-10	W, see ^{7}Be	1E+3	2E+2	6E-8	2E-10		-	-
	-								
			LLI wall						
			(1E+3)	-	-	-		2E-5	2E-4
		Y, see ^{7}Be	-	1E+1	6E-9	2E-11		-	-
6	Carbon-11[2]	Monoxide	-	1E+6	5E-4	2E-6		-	-
		Dioxide	-	6E+5	3E-4	9E-7		-	-
		Compounds	4E+5	4E+ 5	2E-4	6E-7		6E-3	6E-2
6	Carbon-14	Monoxide	-	2E+6	7E-4	2E-6		-	-
		Dioxide	-	2E+5	9E-5	3E-7		-	-
		Compounds	2E+3	2E+3	1E-6	3E-9		3E-5	3E-4
7	Nitrogen-13[2]	Submersion[1]	-	-	4E-6	2E-8		-	-
8	Oxygen-15[2]	Submersion[1]	-	-	4E-6	2E-8		-	-
9	Fluorine-18[2]	D, fluorides of H, Li, Na,							
			K, Rb, Cs, and Fr	5E+4	7E+4	3E-5	1E-7	-	-
			St wall						
			(5E+4)	-	-	-		7E-4	
				7E-3					
		W, fluorides of Be, Mg, Ca,							
			Sr, Ba, Ra, Al, Ga, In, Tl,						
			As, Sb, Bi, Fe, Ru, Os,						
			Co, Ni, Pd, Pt, Cu, Ag,						
			Au, Zn, Cd, Hg, Sc, Y,						
			Ti, Zr, V, Nb, Ta, Mn,						
			Tc, and Re	-	9E+4	4E-5	1E-7	-	-
		Y, Lanthanum fluoride	-	8E+-4	3E-5	1E-7		-	-
11	Sodium-22	D, all compounds	4E+2	6E+2	3E-7	9E-10		6E-6	6E-5
11	Sodium-24	D, all compounds	4E+3	5E+3	2E-6	7E-9		5E-5	5E-4
12	Magnesium-28	D, all compounds except							
			those given for W	7E+2	2E+3	7E-7	2E-9	9E-6	9E-5
		W, oxides, hydroxides,							
			carbides, halides, and						
			nitrates	-	1E+3	5E-7	2E-9	-	-
13	Aluminum-26	D, all compounds except							
			those given for W	4E+2	6E+1	3E-8	9E-11	6E-6	6E-5
		W, oxides, hydroxides,							
		carbides, halides, and							
		nitrates	-	9E+1	4E-8	1E-10		-	-
14	Silicon-31	D, all compounds except							
			those given for W and Y		9E+3	3E+4	1E-5	4E-8	
	1E-4	1E-3							

		W, oxides, hydroxides, carbides, and nitrates	-	3E+4	1E-5	5E-8	-	-
		Y, aluminosilicate glass	-	3E+4	1E-5	4E-8	-	-
14	Silicon-32	D. see ^{31}Si	2E+3	2E+2	1E-7	3E-10	-	-
		LLI wall	(3E+3)	-	-	-	4E-5	4E-4
		W, see ^{31}Si	-	1E+2	5E-8	2E-10	-	-
		Y, see ^{31}Si	-	5E+0	2E-9	7E-12	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Oral Ingestion Class	ALI Concentration (μCi)	Inhalation ALI (μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)		
15	Phosphorus-32	D, all compounds except phosphates given for W			6E+2	9E+2	4E-7	1E-9		
	9E-6	9E-5								
		W, phosphates of Zn^{2+}, S^{3+}, Mg^{2+}, Fe^{3+}, Bi^{3+}, and Lanthanides	-		4E+2	2E-7	5E-10	-	-	
15	Phosphorus-33	D, see ^{32}P	6E+3	8E+3	4E-6	1E-8		8E-5	8E-4	
		W, see ^{32}P	-	3E+3	1E-6	4E-9		-	-	
16	Sulfur-35	Vapor	1E+4	6E-6	2E-8	-		-		
		D, sulfides and sulfates except those given for W			1E+4	2E+4	7E-6	2E-8		
	-	-								
			LLI wall (8E+3)	-	-	-		1E-4	1E-3	
		W, elemental sulfur, sulfides of Sr, Ba, Ge, Sn, Pb, As, Sb, Bi, Cu, Ag, Au, Zn, Cd, Hg, W, and Mo. Sulfates of Ca, Sr, Ba, Ra, As, Sb, and Bi	6E+3		-	2E+3	9E-7	3E-9		
	-	-								
17	Chlorine-36	D, chlorides of H, Li, Na, K, Rb, Cs, and Fr	2E+3		2E+3	1E-6	3E-9	2E-5	2E-4	
		W, chlorides of Lanthanides, Be, Mg, Ca, Sr, Ba, Ra, Al, Ga, In, Tl, Ge, Sn, Pb, As, Sb, Bi, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, Sc, Y, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Tc, and Re	-		2E+2	1E-7	3E-10	-	-	
17	Chlorine-38[2]	D, see ^{36}Cl	2E+4	4E+4	2E-5	6E-8	-	-		
			St wall (3E+4)	-	-	-	3E-4	3E-3		
		W, see ^{36}Cl	-	5E+4	2E-5	6E-8	-	-		
17	Chlorine-39[2]	D, see ^{36}Cl	2E+4	5E+4	2E-5	7E-8	-	-		
			St wall (4E+4)	-	-	-	5E-4	5E-3		
		W, see ^{36}Cl	-	6E+4	2E-5	8E-8	-	-		
18	Argon-37	Submersion[1]	-	-	1E+0	6E-3	-	-		
18	Argon-39	Submersion[1]	-	-	2E-4	8E-7	-	-		
18	Argon-41	Submersion[1]	-	-	3E-6	1E-8	-	-		
19	Potassium-40	D, all compounds	3E+2	4E+2	2E-7	6E-10		4E-6		
	4E-5									
19	Potassium-42	D, all compounds	5E+3	5E+3	2E-6	7E-9		6E-5		
	6E-4									
19	Potassium-43	D, all compounds	6E+3	9E+3	4E-6	1E-8		9E-5		
	9E-4									

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19	Potassium-44[2]	D, all compounds	2E+4	7E+4	3E-5	9E-8	-	-
			St wall (4E+4)	-	-	-	5E-4	5E-3
19	Potassium-45[2]	D, all compounds	3E+4	1E+5	5E-5	2E-7	-	-
			St watt (5E+4)	-	-	-	7E-4	7E-3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
			Ingestion		Inhalation				
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
20	Calcium-41	W, all compounds	3E+3	4E+3	2E-6	-		-	-
			Bone surf	Bone surf					
			(4E+3)	(4E+3)	-	5E-9		6E-5	6E-4
20	Calcium-45	W, all compounds	2E+3	8E+2	4E-7	1E-9		2E-5	2E-4
20	Calcium-47	W, all compounds	8E+2	9E+2	4E-7	1E-9		1E-5	1E-4
21	Scandium-43	Y, all compounds	7E+3	2E+4	9E-6	3E-8		1E-4	1E-3
21	Scandium-44m	Y, all compounds	5E+2	7E+2	3E-7	1E-9		7E-6	7E-5
21	Scandium-44	Y, all compounds	4E+3	1E+4	5E-6	2E-8		5E-5	5E-4
21	Scandium-46	Y, all compounds	9E+2	2E+2	1E-7	3E-10		1E-5	1E-4
21	Scandium-47	Y, all compounds	2E+3	3E+3	1E-6	4E-9		-	-
			LLI wall						
			(3E+3)	-	-	-		4E-5	4E-4
21	Scandium-48	Y, all compounds	8E+2	1E+3	6E-7	2E-9		1E-5	1E-4
21	Scandium-49[2]	Y, all compounds	2E+4	5E+4	2E-5	8E-8		3E-4	3E-3
22	Titanium-44	D, all compounds except							
		those given for W and Y			3E+2	1E+1	5E-9	2E-11	
	4E-6	4E-5							
		W, oxides, hydroxides,							
		carbides, halides, and							
		nitrates	-		3E+1	1E-8	4E-11	-	-
		Y, SrTiO	-	6E+0	2E-9	8E-12		-	-
22	Titanium-45	D, see ^{44}Ti	9E+3	3E+4	1E-5	3E-8		1E-4	1E-3
		W, see ^{44}Ti	-	4E+4	1E-5	5E-8		-	-
		Y, see ^{44}Ti	-	3E+4	1E-5	4E-8		-	-
23	Vanadium-47[2]	D, all compounds except							
		those given for W	3E+4		8E+4	3E-5	1E-7	-	-
		St wall							
		(3E+4)	-		-	-		4E-4	4E-3
		W, oxides, hydroxides,							
		carbides, and halides	-		1E+5	4E-5	1E-7	-	-
23	Vanadium-48	D, see ^{47}V	6E+2	1E+3	5E-7	2E-9		9E-6	9E-5
		W, see ^{47}V	-	6E+2	3E-7	9E-10		-	-
23	Vanadium-49	D, see ^{47}V	7E+4	3E+4	1E-5	-		-	-
			LLI wall	Bone surf					
			(9E+4)	(3E+4)	-	5E-8		1E-3	1E-2
		W, see ^{47}V	-	2E+4	8E-6	2E-8		-	-
24	Chromium-48	D, all compounds except							
		those given for W and Y			6E+3	1E+4	5E-6	2E-8	
	8E-5	8E-4							
		W, halides and nitrates	-	7E+3	3E-6	1E-8		-	-
		Y, oxides and hydroxides	-	7E+3	3E-6	1E-8		-	-
24	Chromium-49[2]	D, see ^{48}Cr	3E+4	8E+4	4E-5	1E-7		4E-4	4E-3
		W, see ^{48}Cr	-	1E+5	4E-5	1E-7		-	-
		Y, see ^{48}Cr	-	9E+4	4E-5	1E-7		-	-
24	Chromium-51	D, see ^{48}Cr	4E+4	5E+4	2E-5	6E-8		5E-4	5E-3
		W, see ^{48}Cr	-	2E+4	1E-5	3E-8		-	-
		Y, see ^{48}Cr	-	2E+4	8E-6	3E-8		-	-

25	Manganese-51[2]	D, all compounds except those given for W	2E+4	5E+4	2E-5	7E-8	3E-4	3E-3
		W, oxides, hydroxides, halides, and nitrates	-	6E+4	3E-5	8E-8	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
	(μCi/ml)									
25	Manganese-52m[2]	D, see ^{51}Mn	3E+4	9E+4	4E-5	1E-7			-	-
			St wall							
			(4E+4)	-	-	-			5E-4	5E-3
		W, see ^{51}Mn	-	1E+5	4E-5	1E-7			-	-
25	Manganese-52	D, see ^{51}Mn	7E+2	1E+3	5E-7	2E-9			1E-5	1E-4
		W, see ^{51}Mn	-	9E+2	4E-7	1E-9			-	-
25	Manganese-53	D, see ^{51}Mn	5E+4	1E+4	5E-6	-			7E-4	7E-3
				Bone surf						
			-	(2E+4)	-	3E-8			-	-
		W, see ^{51}Mn	-	1E+4	5E-6	2E-8			-	-
25	Manganese-54	D, see ^{51}Mn	2E+3	9E+2	4E-7	1E-9			3E-5	3E-4
		W, see ^{51}Mn	-	8E+2	3E-7	1E-9			-	-
25	Manganese-56	D, see ^{51}Mn	5E+3	2E+4	6E-6	2E-8			7E-5	7E-4
		W, see ^{51}Mn	-	2E+4	9E-6	3E-8			-	-
26	Iron-52	D, all compounds except								
			those given for W	9E+2	3E+3	1E-6	4E-9		1E-5	1E-4
		W, oxides, hydroxides,								
			and halides	-	2E+3	1E-6	3E-9		-	-
26	Iron-55	D, see ^{52}Fe	9E+3	2E+3	8E-7	3E-9			1E-4	1E-3
		W, see ^{52}Fe	-	4E+3	2E-6	6E-9			-	-
26	Iron-59	D, see ^{52}Fe	8E+2	3E+2	1E-7	5E-10			1E-5	1E-4
		W, see ^{52}Fe	-	5E+2	2E-7	7E-10			-	-
26	Iron-60	D, see ^{52}Fe	3E+1	6E+0	3E-9	9E-12			4E-7	4E-6
		W, see ^{52}Fe	-	2E+1	8E-9	3E-11			-	-
27	Cob9alt-55	W, all compounds except								
			those given for Y	1E+3	3E+3	1E-6	4E-9		2E-5	2E-4
		Y, oxides, hydroxides,								
			halides, and nitrates	-	3E+3	1E-6	4E-9		-	-
27	Cobalt-56	W, see ^{55}Co	5E+2	3E+2	1E-7	4E-10			6E-6	6E-5
		Y, see ^{55}Co	4E+2	2E+2	8E-8	3E-10			-	-
27	Cobalt-57	W, see ^{55}Co	8E+3	3E+3	1E-6	4E-9			6E-5	6E-4
		Y, see ^{55}Co	4E+3	7E+2	3E-7	9E-10			-	-
27	Cobalt-58m	W, see ^{55}Co	6E+4	9E+4	4E-5	1E-7			8E-4	8E-3
		Y, see ^{55}Co	-	6E+4	3E-5	9E-8			-	-
27	Cobalt-58	W, see ^{55}Co	2E+3	1E+3	5E-7	2E-9			2E-5	2E-4
		Y, see ^{55}Co	1E+3	7E+2	3E-7	1E-9			-	-
27	Cobalt-60m[2]	W, see ^{55}Co	1E+6	4E+6	2E-3	6E-6			-	-
			St wall							
			(1E+6)	-	-	-			2E-2	2E-1
		Y, see ^{55}Co	-	3E+6	1E-3	4E-6			-	-
27	Cobalt-60	W, see ^{55}Co	5E+2	2E+2	7E-8	2E-10			3E-6	3E-5
		Y, see ^{55}Co	2E+2	3E+1	1E-8	5E-11			-	-
27	Cobalt-61[2]	W, see ^{55}Co	2E+4	6E+4	3E-5	9E-8			3E-4	3E-3
		Y, see ^{55}Co	2E+4	6E+4	2E-5	8E-8			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
27	Cobalt-62m[2]	W, see ^{55}Co	4E+4	2E+5	7E-5	2E-7		-	-
		St wall	(5E+4)	-	-	-		7E-4	7E-3
		Y, see ^{55}Co	-	2E+5	6E-5	2E-7		-	-
28	Nickel-56	D, all compounds except those given for W		1E+3	2E+3	8E-7	3E-9	2E-5	2E-4
		W, oxides, hydroxides, and carbides	-	1E+3	1E+3	5E-7	2E-9	-	-
		Vapor	-	1E+3	5E-7	2E-9		-	-
28	Nickel-57	D, see ^{56}Ni	2E+3	5E+3	2E-6	7E-9		2E-5	2E-4
		W, see ^{56}Ni	-	3E+3	1E-6	4E-9		-	-
		Vapor	-	6E+3	3E-6	9E-		-	-
28	Nickel-59	D, see ^{56}Ni	2E+4	4E+3	2E-6	5E-9		3E-4	3E-3
		W, see ^{56}Ni	-	7E+3	3E-6	1E-8		-	-
		Vapor	-	2E+3	8E-7	3E-9		-	-
28	Nickel-63	D, see ^{56}Ni	9E+3	2E+3	7E-7	2E-9		1E-4	1E-3
		W, see ^{56}Ni	-	3E+3	1E-6	4E-9		-	-
		Vapor	-	8E+2	3E-7	1E-9		-	-
28	Nickel-65	D, see ^{56}Ni	8E+3	2E+4	1E-5	3E-8		1E-4	1E-3
		W, see ^{56}Ni	-	3E+4	1E-5	4E-8		-	-
		Vapor	-	2E+4	7E-6	2E-8		-	-
28	Nickel-66	D, see ^{56}Ni	4E+2	2E+3	7E-7	2E-9		-	-
		LLI wall	(5E+2)	-	-	-		6E-6	6E-5
		W, see ^{56}Ni	-	6E+2	3E-7	9E-10		-	-
		Vapor	-	3E+3	1E-6	4E-9		-	-
29	Copper-60[2]	D, all compounds except those given for W and Y			3E+4	9E+4	4E-5	1E-7	
	-	-							
		St wall	(3E+4)	-	-	-		4E-4	4E-3
		W, sulfides, halides, and nitrates	-	1E+5	1E+5	5E-5	2E-7	-	-
		Y, oxides and hydroxides	-	1E+5	4E-5	1E-7		-	-
29	Copper-61	D, see ^{60}Cu	1E+4	3E+4	1E-5	4E-8		2E-4	2E-3
		W, see ^{60}Cu	-	4E+4	2E-5	6E-8		-	-
		Y, see ^{60}Cu	-	4E+4	1E-5	5E-8		-	-
29	Copper-64	D, see ^{60}Cu	1E+4	3E+4	1E-5	4E-8		2E-4	2E-3
		W, see ^{60}Cu	-	2E+4	1E-5	3E-8		-	-
		Y, see ^{60}Cu	-	2E+4	9E-6	3E-8		-	-
29	Copper-67	D, see ^{60}Cu	5E+3	8E+3	3E-6	1E-8		6E-5	6E-4
		W, see ^{60}Cu	-	5E+3	2E-6	7E-9		-	-
		Y, see ^{60}Cu	-	5E+3	2E-6	6E-9		-	-
30	Zinc-62	Y, all compounds	1E+3	3E+3	1E-6	4E-9		2E-5	2E-4
30	Zinc-63[2]	Y, all compounds	2E+4	7E+4	3E-5	9E-8		-	-
		St wall							

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(3E+4)	-	-	-	3E-4	3E-3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
			Ingestion		Inhalation				
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
30	Zinc-65	Y, all compounds	4E+2	3E+2	1E-7	4E-10		5E-6	5E-5
30	Zinc-69m	Y, all compounds	4E+3	7E+3	3E-6	1E-8		6E-5	6E-4
30	Zinc-69[2]	Y, all compounds	6E+4	1E+5	6E-5	2E-7		8E-4	8E-3
30	Zinc-71m	Y, all compounds	6E+3	2E+4	7E-6	2E-8		8E-5	8E-4
30	Zinc-72	Y, all compounds	1E+3	1E+3	5E-7	2E-9		1E-5	1E-4
31	Gallium-65[2]	D, all compounds except							
		those given for W	5E+4		2E+5	7E-5	2E-7	-	-
		St wall	(6E+4),	-	-	-		9E-4	9E-3
		W, oxides, hydroxides,							
		carbides, halides, and	nitrates	-	2E+5	8E-5	3E-7	-	-
31	Gallium-66	D, see ^{65}Ga	1E+3	4E+3	1E-6	5E-9		1E-5	1E-4
		W, see ^{65}Ga	-	3E+3	1E-6	4E-9		-	-
31	Gallium-67	D, see ^{65}Ga	7E+3	1E+4	6E-6	2E-8		1E-4	1E-3
		W, see ^{65}Ga	-	1E+4	4E-6	1E-8		-	-
31	Gallium-68[2]	D, see ^{65}Ga	2E+4	4E+4	2E-5	6E-8		2E-4	2E-3
		W, see ^{65}Ga	-	5E+4	2E-5	7E-8		-	-
31	Gallium-70[2]	D, see ^{65}Ga	5E+4	2E+5	7E-5	2E-7		-	-
		St wall	(7E+4)	-	-	-		1E-3	1E-2
		W, see ^{65}Ga	-	2E+5	8E-5	3E-7		-	-
31	Gallium-72	D, see ^{65}Ga	1E+3	4E+3	1E-6	5E-9		2E-5	2E-4
		W, see ^{65}Ga	-	3E+3	1E-6	4E-9		-	-
31	Gallium-73	D, see ^{65}Ga	5E+3	2E+4	6E-6	2E-8		7E-5	7E-4
		W, see ^{65}Ga	-	2E+4	6E-6	2E-8		-	-
32	Germanium-66	D, all compounds except							
		those given for W	2E+4		3E+4	1E-5	4E-8	3E-4	3E-3
		W, oxides, sulfides,							
		and halides	-		2E+4	8E-6	3E-8	-	-
32	Germanium-67[2]	D, see ^{66}Ge	3E+4	9E+4	4E-5	1E-7		-	-
		St wait	(4E+4)	-	-	-		6E-4	6E-3
		W, see ^{66}Ge	-	1E+5	4E-5	1E-7		-	-
32	Germanium-68	D, see ^{66}Ge	5E+3	4E+3	2E-6	5E-9		6E-5	6E-4
		W, see ^{66}Ge	-	1E+2	4E-8	1E-10		-	-
32	Germanium-69	D, see ^{66}Ge	1E+4	2E+4	6E-6	2E-8		2E-4	2E-3
		W, see ^{66}Ge	-	8E+3	3E-6	1E-8		-	-
32	Germanium-71	D, see ^{66}Ge	5E+5	4E+5	2E-4	6E-7		7E-3	7E-2
		W, see ^{66}Ge	-	4E+4	2E-5	6E-8		-	-
32	Germanium-75[2]	D, see ^{66}Ge	4E+4	8E+4	3E-5	1E-7		-	-
		St wall	(7E+4)	-	-	-		9E-4	9E-3
		W, see ^{66}Ge	-	8E+4	4E-5	1E-7		-	-
32	Germanium-77	D, see ^{66}Ge	9E+3	1E+4	4E-6	1E-8		1E-4	1E-3
		W, see ^{66}Ge	-	6E+3	2E-6	8E-9		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
			Ingestion		Inhalation				
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
32	Germanium-78[2]	D, see ^{66}Ge	2E+4	2E+4	9E-6	3E-8		-	-
			St wall						
			(2E+4)	-	-	-		3E-4	3E-3
		W, see ^{66}Ge	-	2E+4	9E-6	3E-8		-	-
33	Arsenic-69[2]	W, all compounds	3E+4	1E+5	5E-5	2E-7		-	-
			St wall						
			(4E+4)	-	-	-		6E-4	6E-3
33	Arsenic-70[2]	W, all compounds	1E+4	5E+4	2E-5	7E-8		2E-4	2E-3
33	Arsenic-71	W, all compounds	4E+3	5E+3	2E-6	6E-9		5E-5	5E-4
33	Arsenic-72	W, all compounds	9E+2	1E+3	6E-7	2E-9		1E-5	1E-4
33	Arsenic-73	W, all compounds	8E+3	2E+3	7E-7	2E-9		1E-4	1E-3
33	Arsenic-74	W, all compounds	1E+3	8E+2	3E-7	1E-9		2E-5	2E-4
33	Arsenic-76	W, all compounds	1E+3	1E+3	6E-7	2E-9		1E-5	1E-4
33	Arsenic-77	W, all compounds	4E+3	5E+3	2E-6	7E-9		-	-
			LLI wall						
			(5E+3)	-	-	-		6E-5	6E-4
33	Arsenic-78[2]	W, all compounds	8E+3	2E+4	9E-6	3E-8		1E-4	1E-3
34	Selenium-70[2]	D, all compounds except							
			those given for W	2E+4	4E+4	2E-5	5E-8	1E-4	1E-3
		W, oxides, hydroxides,							
			carbides, and						
			elemental Se	1E+4	4E+4	2E-5	6E-8	-	-
34	Selenium-73m[2]	D, see ^{70}Se	6E+4	2E+5	6E-5	2E-7		4E-4	4E-3
		W, see ^{70}Se	3E+4	1E+5	6E-5	2E-7		-	-
34	Selenium-73	D, see ^{70}Se	3E+3	1E+4	5E-6	2E-8		4E-5	4E-4
		W, see ^{70}Se	-	2E+4	7E-6	2E-8		-	-
34	Selenium-75	D, see ^{70}Se	5E+2	7E+2	3E-7	1E-9		7E-6	7E-5
		W, see ^{70}Se	-	6E+2	3E-7	8E-10		-	-
34	Selenium-79	D, see ^{70}Se	6E+2	8E+2	3E-7	1E-9		8E-6	8E-5
		W, see ^{70}Se	-	6E+2	2E-7	8E-10		-	-
34	Selenium-81m[2]	D, see ^{70}Se	4E+4	7E+4	3E-5	9E-8		3E-4	3E-3
		W, see ^{70}Se	2E+4	7E+4	3E-5	1E-7		-	-
34	Selenium-81[2]	D, see ^{70}Se	6E+4	2E+5	9E-5	3E-7		-	-
			St wall						
			(8E+4)	-	-	-		1E-3	1E-2
		W, see ^{70}Se	-	2E+5	1E-4	3E-7		-	-
34	Selenium-83[2]	D, see ^{70}Se	4E+4	1E+5	5E-5	2E-7		4E-4	4E-3
		W, see ^{70}Se	3E+4	1E+5	5E-5	2E-7		-	-
35	Bromine-74m[2]	D, bromides of H, Li,							
			Na, K, Rb, Cs, and Fr	1E+4	4E+4	2E-5	5E-8	-	-
			St wall						
			(2E+4)	-	-	-		3E-4	3E-3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
		W, Bromides of lanthanides, Be, Mg, Ca, Sr, Ba, Ra, Al, Ga, In, Tl, Ge, Sn, Pb, As, Sb, Bi, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, Sc, Y, Ti, Zr, Hf, V, Nb, Ta, Mn, Tc, and Re		-	4E+4	2E-5	6E-8		-	-
35	Bromine-74[2]	D, see ^{74m}Br		2E+4	7E+4	3E-5	1E-7		-	-
			St wall	(4E+4)	-	-	-		5E-4	5E-3
		W, see ^{74m}Br		-	8E+4	4E-5	1E-7		-	-
35	Bromine-75[2]	D, see ^{74m}Br		3E+4	5E+4	2E-5	7E-8		-	-
			St wall	(4E+4)	-	-	-		5E-4	5E-3
		W, see ^{74m}Br		-	5E+4	2E-5	7E-8		-	-
35	Bromine-76	D, see ^{74m}Br		4E+3	5E+3	2E-6	7E-9		5E-5	5E-4
		W, see ^{74m}Br		-	4E+3	2E-6	6E-9		-	-
35	Bromine-77	D, see ^{74m}Br		2E+4	2E+4	1E-5	3E-8		2E-4	2E-3
		W, see ^{74m}Br		-	2E+4	8E-6	3E-8		-	-
35	Bromine-80m	D, see ^{74m}Br		2E+4	2E+4	7E-6	2E-8		3E-4	3E-3
		W, see ^{74m}Br		-	1E+4	6E-6	2E-8		-	-
35	Bromine-80[2]	D, see ^{74m}Br		5E+4	2E+5	8E-5	3E-7		-	-
			St wall	(9E+4)	-	-	-		1E-3	1E-2
		W, see ^{74m}Br		-	2E+5	9E-5	3E-7		-	-
35	Bromine-82	D, see ^{74m}Br		3E+3	4E+3	2E-6	6E-9		4E-5	4E-4
		W, see ^{74m}Br		-	4E+3	2E-6	5E-9		-	-
35	Bromine-83	D, see ^{74m}Br		5E+4	6E+4	3E-5	9E-8		-	-
			St wall	(7E+4)	-	-	-		9E-4	9E-3
		W, see ^{74m}Br		-	6E+4	3E-5	9E-8		-	-
35	Bromine-84[2]	D, see ^{74m}Br		2E+4	6E+4	2E-5	8E-8		-	-
			St wall	(3E+4)	-	-	-		4E-4	4E-3
		W, see ^{74m}Br		-	6E+4	3E-5	9E-8		-	-
36	Krypton-74[2]	Submersion[1]		-	-	3E-6	1E-8		-	-
36	Krypton-76	Submersion[1]		-	-	9E-6	4E-8		-	-
36	Krypton-77[2]	Submersion[1]		-	-	4E-6	2E-8		-	-
36	Krypton-79	Submersion[1]		-	-	2E-5	7E-8		-	-
36	Krypton-81	Submersion[1]		-	-	7E-4	3E-6		-	-
36	Krypton-83m[2]	Submersion[1]		-	-	1E-2	5E-5		-	-
36	Krypton-85m	Submersion[1]		-	-	2E-5	1E-7		-	-
36	Krypton-85	Submersion[1]		-	-	1E-4	7E-7		-	-
36	Krypton-87[2]	Submersion[1]		-	-	5E-6	2E-8		-	-
36	Krypton-88	Submersion[1]		-	-	2E-6	9E-9		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
37	Rubidium-79[2]	D, all compounds	4E+4	1E+5	5E-5	2E-7			-	-
			St wall (6E+4)	-	-	-			8E-4	8E-3
37	Rubidium-81m[2]	D, all compounds	2E+5	3E+5	1E-4	5E-7			-	-
			St wall (3E+5)	-	-	-			4E-3	4E-2
37	Rubidium-81	D, all compounds	4E+4	5E+4	2E-5	7E-8			5E-4	5E-3
37	Rubidium 82m	D, all compounds	1E+4	2E+4	7E-6	2E-8			2E-4	2E-3
37	Rubidium-83	D, all compounds	6E+2	1E+3	4E-7	1E-9			9E-6	9E-5
37	Rubidium-84	D, all compounds	5E+2	8E+2	3E-7	1E-9			7E-6	7E-5
37	Rubidium-86	D, all compounds	5E+2	8E+2	3E-7	1E-9			7E-6	7E-5
37	Rubidium-87	D, all compounds	1E+3	2E+3	6E-7	2E-9			1E-5	1E-4
37	Rubidium-88[2]	D, all compounds	2E+4	6E+4	3E-5	9E-8			-	-
			St wall (3E+4)	-	-	-			4E-4	4E-3
37	Rubidium-89[2]	D, all compounds	4E+4	1E+5	6E-5	2E-7			-	-
			St wall (6E+4)	-	-	-			9E-4	9E-3
38	Strontium-80[2]	D, all soluble compounds except SrTi0	4E+3	1E+4	5E-6	2E-8			6E-5	6E-4
		Y, all insoluble compounds and SrTi0	-	1E+4	5E-6	2E-8			-	-
38	Strontium-81[2]	D, see ^{80}Sr	3E+4	8E+4	3E-5	1E-7			3E-4	3E-3
		Y, see ^{80}Sr	2E+4	8E+4	3E-5	1E-7			-	-
38	Strontium-82	D, see ^{80}Sr	3E+2	4E+2	2E-7	6E-10			-	-
			LLI wall (2E+2)	-	-	-			3E-6	3E-5
		Y, see ^{80}Sr	2E+2	9E+1	4E-8	1E-10			-	-
38	Strontium-83	D, see ^{80}Sr	3E+3	7E+3	3E-6	1E-8			3E-5	3E-4
		Y, see ^{80}Sr	2E+3	4E+3	1E-6	5E-9			-	-
38	Strontium-85m[2]	D, see ^{80}Sr	2E+5	6E+5	3E-4	9E-7			3E-3	3E-2
		Y, see ^{80}Sr	-	8E+5	4E-4	1E-6			-	-
38	Strontium-85	D, see ^{80}Sr	3E+3	3E+3	1E-6	4E-9			4E-5	4E-4
		Y, see ^{80}Sr	-	2E+3	6E-7	2E-9			-	-
38	Strontium-87m	D, see ^{80}Sr	5E+4	1E+5	5E-5	2E-7			6E-4	6E-3
		Y, see ^{80}Sr	4E+4	2E+5	6E-5	2E-7			-	-
38	Strontium-89	D, see ^{80}Sr	6E+2	8E+2	4E-7	1E-9			-	-
			LLI wall (6E+2)	-	-	-			8E-6	8E-5
		Y, see ^{80}Sr	5E+2	1E+2	6E-8	2E-10			-	-
38	Strontium-90	D, see ^{80}Sr	3E+1	2E+1	8E-9	-			-	-
			Bone surf (4E+1)	Bone surf (2E+1)	-	3E-11			5E-7	5E-6
		Y, see ^{80}Sr	-	4E+0	2E-9	6E-12			-	-
38	Strontium-91	D, see ^{80}Sr	2E+3	6E+3	2E-6	8E-9			2E-5	2E-4
		Y, see ^{80}Sr	-	4E+3	1E-6	5E-9			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
38	Strontium-92	D, see ^{80}Sr		3E+3	9E+3	4E-6	1E-8		4E-5	4E-4
		Y, see ^{80}Sr		-	7E+3	3E-6	9E-9		-	-
39	Yttrium-86m[2]	W, all compounds except those given for Y		2E+4	6E+4	2E-5	8E-8		3E-4	3E-3
		Y, oxides and hydroxides		-	5E+4	2E-5	8E-8		-	-
39	Yttrium-86	W, see ^{86m}Y		1E+3	3E+3	1E-6	5E-9		2E-5	2E-4
		Y, see ^{86m}Y		-	3E+3	1E-6	5E-9		-	-
39	Yttrium-87	W, see ^{86m} Y		2E+3	3E+3	1E-6	5E-9		3E-5	3E-4
		Y, see ^{86m}Y		-	3E+3	1E-6	5E-9		-	-
39	Yttrium-88	W, see ^{86m}Y		1E+3	3E+2	1E-7	3E-10		1E-5	1E-4
		Y, see ^{86m}Y		-	2E+2	1E-7	3E-10		-	-
39	Yttrium-90m	W, see ^{86m}Y		8E+3	1E+4	5E-6	2E-8		1E-4	1E-3
		Y, see ^{86m}Y		-	1E+4	5E-6	2E-8		-	-
39	Yttrium-90	W, see ^{86m}Y		4E+2	7E+2	3E-7	9E-10		-	-
				LLI wall (5E+2)	-	-	-		7E-6	7E-5
		Y, see ^{86m}Y		-	6E+2	3E-7	9E-10		-	-
39	Yttrium-91m[2]	W, see ^{86m}Y		1E+5	2E+5	1E-4	3E-7		2E-3	2E-2
		Y, see ^{86m}Y		-	2E+5	7E-5	2E-7		-	-
39	Yttrium-91	W, see ^{86m}Y		5E+2	2E+2	7E-8	2E-10		-	-
				LLI wall (6E+2)	-	-	-		8E-6	8E-5
		Y, see ^{86m}Y		-	1E+2	5E-8	2E-10		-	-
39	Yttrium-92	W, see ^{86m}Y		3E+3	9E+3	4E-6	1E-8		4E-5	4E-4
		Y, see ^{86m}Y		-	8E+3	3E-6	1E-8		-	-
39	Yttrium-93	W, see ^{86m}Y		1E+3	3E+3	1E-6	4E-9		2E-5	2E-4
		Y, see ^{86m}Y		-	2E+3	1E-6	3E-9		-	-
39	Yttrium-94[2]	W, see ^{86m}Y		2E+4	8E+4	3E-5	1E-7		-	-
				St wall (3E+4)	-	-	-		4E-4	4E-3
		Y, see ^{86m}Y		-	8E+4	3E-5	1E-7		-	-
39	Yttrium-95[2]	W, see ^{86m}Y		4E+4	2E+5	6E-5	2E-7		-	-
				St wall (5E+4)	-	-	-		7E-4	7E-3
		Y, see ^{86m}Y		-	1E+5	6E-5	2E-7		-	-
40	Zirconium-86	D, all compounds except those given for W and Y		1E+3	4E+3	2E-6	6E-9		2E-5	2E-4
		W, oxides, hydroxides, halides, and nitrates		-	3E+3	1E-6	4E-9		-	-
		Y, carbide		-	2E+3	1E-6	3E-9		-	-
40	Zirconium-88	D, see ^{86}Zr		4E+3	2E+2	9E-8	3E-10		5E-5	5E-4
		W, see ^{86}Zr		-	5E+2	2E-7	7E-10		-	-
		Y, see ^{86}Zr		-	3E+2	1E-7	4E-10		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Oral Ingestion Class Concentration (μCi)	ALI	Inhalation (μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
40	Zirconium-89	D, see ^{86}Zr	2E+3	4E+3	1E-6	5E-9		2E-5	2E-4
		W, see ^{86}Zr	-	2E+3	1E-6	3E-9		-	-
		Y, see ^{86}Zr	-	2E+3	1E--6	3E-9		-	-
40	Zirconium-93	D, see ^{86}Zr	1E+3	6E+0	3E-9	-		-	-
			Bone surf (3E+3)	Bone surf (2E+1)	-	2E-11		4E-5	4E-4
		W, see ^{86}Zr	-	2E+1	1E-8	-		-	-
			-	Bone surf (6E+1)	-	9E-11		-	-
		Y, see ^{86}Zr	-	6E+1	2E-8	-		-	-
			-	Bone surf (7E+1)	-	9E-11		-	-
40	Zirconium-95	D, see ^{86}Zr	1E+3	1E+2	5E-8	-		2E-5	2E-4
			-	Bone surf (3E+2)	-	4E-10		-	-
		W, see ^{86}Zr	-	4E+2	2E-7	5E-10		-	-
		Y, see ^{86}Zr	-	3E+2	1E-7	4E-10		-	-
40	Zirconium-97	D, see ^{86}Zr	6E+2	2E+3	8E-7	3E-9		9E-6	9E-5
		W, see ^{86}Zr	-	1E+3	6E-7	2E-9		-	-
		Y, see ^{86}Zr	-	1E+3	5E-7	2E-9		-	-
41	Niobium-88[2]	W, all compounds except those given for Y	5E+4	2E+5	9E-5	3E-7		-	-
			St wall (7E+4)	-	-	-		1E-3	1E-2
		Y, oxides and hydroxides	-	2E+5	9E-5	3E-7		-	-
41	Niobium-89[2] (66 min)	W, see ^{88}Nb	1E+4	4E+4	2E-5	6E-8		1E-4	1E-3
		Y, see ^{88}Nb	-	4E+4	2E-5	5E-8		-	-
41	Niobium-89 (122 min)	W, see ^{88}Nb	5E+3	2E+4	8E-6	3E-8		7E-5	7E-4
		Y, see ^{88}Nb	-	2E+4	6E-6	2E-8		-	-
41	Niobium-90	W, see ^{88}Nb	1E+3	3E+3	1E-6	4E-9		1E-5	1E-4
		Y, see ^{88}Nb	-	2E+3	1E-6	3E-9		-	-
41	Niobium-93m	W, see ^{88}Nb	9E+3	2E+3	8E-7	3E-9		-	-
			LLI wall (1E+4)	-	-	-		2E-4	2E-3
		Y, see ^{88}Nb	-	2E+2	7E-8	2E-10		-	-
41	Niobium-94	W, see ^{88}Nb	9E+2	2E+2	8E-8	3E-10		1E-5	1E-4
		Y, see ^{88}Nb	-	2E+1	6E-9	2E-11		-	-
41	Niobium-95m	W, see ^{88}Nb	2E+3	3E+3	1E-6	4E-9		-	-
			LLI wall (2E+3)	-	-	-		3E-5	3E-4
		Y, see ^{88}Nb	-	2E+3	9E-7	3E-9	-	-	
41	Niobium-95	W, see ^{88}Nb	2E+3	1E+3	5E-7	2E-9		3E-5	3E-4
		Y, see ^{88}Nb	-	1E+3	5E-7	2E-9	-	-	

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
41	Niobium-96	W, see ^{88}Nb	1E+3	3E+3	1E-6	4E-9		2E-5	2E-4
		Y, see ^{88}Nb	-	2E+3	1E-6	3E-9		-	-
41	Niobium-97[2]	W, see ^{88}Nb	2E+4	8E+4	3E-5	1E-7		3E-4	3E-3
		Y, see ^{88}Nb	-	7E+4	3E-5	1E-7		-	-
41	Niobium-98[2]	W, see ^{88}Nb	1E+4	5E+4	2E-5	8E-8		2E-4	2E-3
		Y, see ^{88}Nb	-	5E+4	2E-5	7E-8		-	-
42	Molybdenum-90	D, all compounds except those given for Y	4E+3	7E+3	3E-6	1E-8		3E-5	3E-4
		Y, oxides, hydroxides, and MoS	2E+3	5E+3	2E-6	6E-9		-	-
42	Molybdenum-93m	D, see ^{90}Mo	9E+3	2E+4	7E-6	2E-8		6E-5	6E-4
		Y, see ^{90}Mo	4E+3	1E+4	6E-6	2E-8		-	-
42	Molybdenum-93	D, see ^{90}Mo	4E+3	5E+3	2E-6	8E-9		5E-5	5E-4
		Y, see ^{90}Mo	2E+4	2E+2	8E-8	2E-10		-	-
42	Molybdenum-99	D, see ^{90}Mo	2E+3	3E+3	1E-6	4E-9		-	-
			LLI wall (1E+3)	-	-	-		2E-5	2E-4
		Y, see ^{90}Mo	1E+3	1E+3	6E-7	2E-9		-	-
42	Molybdenum-101[2]	D, see ^{90}Mo	4E+4	1E+5	6E-5	2E-7		-	-
			St wall (5E+4)	-	-	-		7E-4	7E-3
		Y, see ^{90}Mo	-	1E+5	6E-5	2E-7		-	-
43	Technetium-93m[2]	D, All compounds except those given for W	7E+4	2E+5	6E-5	2E-7		1E-3	1E-2
		W, oxides, hydroxides, halides, and nitrates	-	3E+5	1E-4	4E-7		-	-
43	Technetium-93	D, see ^{93m}Tc	3E+4	7E+4	3E-5	1E-7		4E-4	4E-3
		W, see ^{93m}Tc	-	1E+5	4E-5	1E-7		-	-
43	Technetium-94m[2]	D, see ^{93m}Tc	2E+4	4E+4	2E-5	6E-8		3E-4	3E-3
		W, see ^{93m}Tc	-	6E+4	2E-5	8E-8		-	-
43	Technetium-94	D, see ^{93m}Tc	9E+3	2E+4	8E-6	3E-8		1E-4	1E-3
		W, see ^{93m}Tc	-	2E+4	1E-5	3E-8		-	-
43	Technetium-95m	D, see ^{93m}Tc	4E+3	5E+3	2E-6	8E-9		5E-5	5E-4
		W, see ^{93m}Tc	-	2E+3	8E-7	3E-9		-	-
43	Technetium-95	D, see ^{93m}Tc	1E+4	2E+4	9E-6	3E-8		1E-4	1E-3
		W, see ^{93m}Tc	-	2E+4	8E-6	3E-8		-	-
43	Technetium-96m[2]	D, see ^{93m}Tc	2E+5	3E+5	1E-4	4E-7		2E-3	2E-2
		W, see ^{93m}Tc	-	2E+5	1E-4	3E-7		-	-
43	Technetium-96	D, see ^{93m}Tc	2E+3	3E+3	1E-6	5E-9		3E-5	3E-4
		W, see ^{93m}Tc	-	2E+3	9E-7	3E-9		-	-
43	Technetium-97m	D, see ^{93m}Tc	5E+3	7E+3	3E-6	-		6E-5	6E-4
			-	St wall (7E+3)	-	1E-8		-	-
		W, see ^{93m}Tc	-	1E+3	5E-7	2E-9		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
43	Technetium-97	D, see ^{93m}Tc	4E+4	5E+4	2E-5	7E-8			5E-4	5E-3
		W, see ^{93m}Tc	-	6E+3	2E-6	8E-9			-	-
43	Technetium-98	D, see ^{93m}Tc	1E+3	2E+3	7E-7	2E-9			1E-5	1E-4
		W, see ^{93m}Tc	-	3E+2	1E-7	4E-10			-	-
43	Technetium-99m	D, see ^{93m}Tc	8E+4	2E+5	6E-5	2E-7			1E-3	1E-2
		W, see ^{93m}Tc	-	2E+5	1E-4	3E-7			-	-
43	Technetium-99	D, see ^{93m}Tc	4E+3	5E+3	2E-6	-			6E-5	6E-4
			-	St wall (6E+3)	-	8E-9			-	-
		W, see ^{93m}Tc	-	7E+2	3E-7	9E-10			-	-
43	Technetium-101[2]	D, see ^{93m}Tc	9E+4	3E+5	1E-4	5E-7			-	-
			St wall (1E+5)	-	-	-			2E-3	2E-2
		W, see ^{93m}Tc	-	4E+5	2E-4	5E-7			-	-
43	Technetium-104[2]	D, see ^{93m}Tc	2E+4	7E+4	3E-5	1E-7			-	-
			St wall (3E+4)	-	-	-			4E-4	4E-3
		W, see ^{93m}Tc	-	9E+4	4E-5	1E-7			-	-
44	Ruthenium-94[2]	D, all compounds except those given for W and Y	2E+4	4E+4	2E-5	6E-8			2E-4	2E-3
		Y, oxides and hydroxides	-	6E+4	2E-5	8E-8			-	-
		W, see ^{94}Ru	-	1E+4	5E-6	2E-8			-	-
44	Ruthenium-103	D, see ^{94}Ru	2E+3	2E+3	7E-7	2E-9			3E-5	3E-4
		Y, see ^{94}Ru	-	6E+2	3E-7	9E-10			-	-
44	Ruthenium-105	D, see ^{94}Ru	5E+3	1E+4	6E-6	2E-8			7E-5	7E-4
		W, see ^{94}Ru	-	1E+4	6E-6	2E-8			-	-
		Y, see ^{94}Ru	-	1E+4	5E-6	2E-8			-	-
44	Ruthenium-106	D, see ^{94}Ru	2E+2	9E+1	4E-8	1E-10			-	-
			LLI wall (2E+2)	-	-	-			3E-6	3E-5
		W, see ^{94}Ru	-	5E+1	2E-8	8E-11			-	-
		Y, see ^{94}Ru	-	1E+1	5E-9	2E-11			-	-
45	Rhodium-99m	D, all compounds except those given for W and Y	2E+4	6E+4	2E-5	8E-8			2E-4	2E-3
		W, halides	-	8E+4	3E-5	1E-7			-	-
		Y, oxides and hydroxides	-	7E+4	3E-5	9E-8			-	-
45	Rhodium-99	D, see ^{99m}Rh	2E+3	3E+3	1E-6	4E-9			3E-5	3E-4
		W, see ^{99m}Rh	-	2E+3	9E-7	3E-9			-	-
		Y, see ^{99m}Rh	-	2E+3	8E-7	3E-9			-	-

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Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
45	Rhodium-100	D, see ^{99m}Rh	2E+3	5E+3	2E-6	7E-9			2E-5	2E-4
		W, see ^{99m}Rh	-	4E+3	2E-6	6E-9			-	-
		Y, see ^{99m}Rh	-	4E+ 3	2E-6	5E-9			-	-
45	Rhodium-101m	D, see ^{99m}Rh	6E+3	1E+4	5E-6	2E-8			8E-5	8E-4
		W, see ^{99m}Rh	-	8E+3	4E-6	1E-8			-	-
		Y, see ^{99m}Rh	-	8E+3	3E-6	1E-8			-	-
45	Rhodium-101	D, see ^{99m}Rh	2E+3	5E+2	2E-7	7E-10			3E-5	3E-4
		W, see ^{99m}Rh	-	8E+2	3E-7	1E-9			-	-
		Y, see ^{99m}Rh	-	2E+2	6E-8	2E-10			-	-
45	Rhodium-102m	D, see ^{99m}Rh	1E+3	5E+2	2E-7	7E-10			-	-
			LLI wall							
			(1E+3)	-	-	-			2E-5	2E-4
		W, see ^{99m}Rh	-	4E+2	2E-7	5E-10			-	-
		Y, see ^{99m}Rh	-	1E+2	5E-8	2E-10			-	-
45	Rhodium-102	D, see ^{99m}Rh	6E+2	9E+1	4E-8	1E-10			8E-6	8E-5
		W, see ^{99m}Rh	-	2E+2	7E-8	2E-10			-	-
		Y, see ^{99m}Rh	-	6E+1	2E-8	8E-11			-	-
45	Rhodium-103m[2]	D, see ^{99m}Rh	4E+5	1E+6	5E-4	2E-6			6E-3	6E-2
		W, see ^{99m}Rh	-	1E+6	5E-4	2E-6			-	-
		Y, see ^{99m}Rh	-	1E+6	5E-4	2E-6			-	-
45	Rhodium-105	D, see ^{99m}Rh	4E+3	1E+4	5E-6	2E-8			-	-
			LLI wall							
			(4E+3)	-	-	-			5E-5	5E-4
		W, see ^{99m}Rh	-	6E+3	3E-6	9E-9			-	-
		Y, see ^{99m}Rh	-	6E+3	2E-6	8E-9			-	-
45	Rhodium-106m	D, see ^{99m}Rh	8E+3	3E+4	1E-5	4E-8			1E-4	1E-3
		W, see ^{99m}Rh	-	4E+4	2E-5	5E-8			-	-
		Y, see ^{99m}Rh	-	4E+4	1E-5	5E-8			-	-
45	Rhodium-107[2]	D, see ^{99m}Rh	7E+4	2E+5	1E-4	3E-7			-	-
			St wall							
			(9E+4)	-	-	-			1E-3	1E-2
		W, see ^{99m}Rh	-	3E+5	1E-4	4E-7			-	-
		Y, see ^{99m}Rh	-	3E+5	1E-4	3E-7			-	-
46	Palladium-100	D, all compounds								
		except those given for								
		W and Y	1E+3	1E+3	6E-7	2E-9			2E-5	2E-4
		W, nitrates	-	1E+3	5E-7	2E-9			-	-
		Y, oxides and hydroxides	-	1E+3	6E-7	2E-9			-	-
46	Palladium-101	D, see ^{100}Pd	1E+4	3E+4	1E-5	5E-8			2E-4	2E-3
		W, see ^{100}Pd	-	3E+4	1E-5	5E-8			-	-
		Y, see ^{100}Pd	-	3E+4	1E-5	4E-8			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
46	Palladium-103	D, see ^{100}Pd	6E+3	6E+3	3E-6	9E-9			-	-
			LLI wall							
			(7E+3)	-	-	-			1E-4	1E-3
		W, see ^{100}Pd	-	4E+3	2E-6	6E-9			-	-
		Y, see ^{100}Pd	-	4E+3	1E-6	5E-9			-	-
46	Palladium-107	D, see ^{100}Pd	3E+4	2E+4	9E-6	-			-	-
			LLI wall	Kidneys						
			(4E+4)	(2E+4)	-	3E-8			5E-4	5E-3
		W, see ^{100}Pd	-	7E+3	3E-6	1E-8			-	-
		Y, see ^{100}Pd	-	4E+2	2E-7	6E-10			-	-
46	Palladium-109	D, see ^{100}Pd	2E+3	6E+3	3E-6	9E-9			3E-5	3E-4
		W, see ^{100}Pd	-	5E+3	2E-6	8E-9			-	-
		Y, see,^{100}Pd	-	5E+3	2E-6	6E-9			-	-
47	Silver-102[2]	D, all compounds								
		except those given								
		for W and Y	5E+4	2E+5	8E-5	2E-7			-	-
			St wall							
			(6E+4)	-	-	-			9E-4	9E-3
		W, nitrates and sulfides	-	2E+5	9E-5	3E-7			-	-
		Y, oxides and hydroxides	-	2E+5	8E-5	3E-7			-	-
47	Silver-103[2]	D, see ^{102}Ag	4E+4	1E+5	4E-5	1E-7			5E-4	5E-3
		W, see ^{102}Ag	-	1E+5	5E-5	2E-7			-	-
		Y, see ^{102}Ag	-	1E+5	5E-5	2E-7			-	-
47	Silver-104m[2]	D, see ^{102}Ag	3E+4	9E+4	4E-5	1E-7			4E-4	4E-3
		W, see ^{102}Ag	-	1E+5	5E-5	2E-7			-	-
		Y, see ^{102}Ag	-	1E+5	5E-5	2E-7			-	-
47	Silver-104[2]	D, see ^{102}Ag	2E+4	7E+4	3E-5	1E-7			3E-4	3E-3
		W, see ^{102}Ag	-	1E+5	6E-5	2E-7			-	-
		Y, see ^{102}Ag	-	1E+5	6E-5	2E-7			-	-
47	Silver-105	D, see ^{102}Ag	3E+3	1E+3	4E-7	1E-9			4E-5	4E-4
		W, see ^{102}Ag	-	2E+3	7E-7	2E-9			-	-
		Y, see ^{102}Ag	-	2E+3	7E-7	2E-9			-	-
47	Silver-106m	D, see ^{102}Ag	8E+2	7E+2	3E-7	1E-9			1E-5	1E-4
		W, see ^{102}Ag	-	9E+2	4E-7	1E-9			-	-
		Y, see ^{102}Ag	-	9E+2	4E-7	1E-9			-	-
47	Silver-106[2]	D, see ^{102}Ag	6E+4	2E+5	8E-5	3E-7			-	-
			St Wall							
			(6E+4)	-	-	-			9E-4	9E-3
		W, see ^{102}Ag	-	2E+5	9E-5	3E-7			-	-
		Y, see ^{102}Ag	-	2E+5	8E-5	3E-7			-	-
47	Silver-108m	D, see ^{102}Ag	6E+2	2E+2	8E-8	3E-10			9E-6	9E-5
		W, see ^{102}Ag	-	3E+2	1E-7	4E-10			-	-
		Y, see ^{102}Ag	-	2E+1	1E-8	3E-11			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
47	Silver-110m	D, see ^{102}Ag	5E+2	1E+2	5E-8	2E-10		6E-6	6E-5
		W, see ^{102}Ag	-	2E+2	8E-8	3E-10		-	-
		Y, see ^{102}Ag	-	9E+1	4E-8	1E-10		-	-
47	Silver-111	D, see ^{102}Ag	9E+2	2E+3	6E-7	-		-	-
			LLI wall (1E+3)	Liver (2E+3)	-	2E-9		2E-5	2E-4
		W, see ^{102}Ag	-	9E+2	4E-7	1E-9		-	-
		Y, see ^{102}Ag	-	9E+2	4E-7	1E-9		-	-
47	Silver-112	D, see ^{102}Ag	3E+3	8E+3	3E-6	1E-8		4E-5	4E-4
		W, see ^{102}Ag	-	1E+4	4E-6	1E-8		-	-
		Y, see ^{102}Ag	-	9E+3	4E-6	1E-8		-	-
47	Silver-115[2]	D, see ^{102}Ag	3E+4	9E+4	4E-5	1E-7		-	-
			St wall (3E+4)	-	-	-		4E-4	4E-3
		W, see ^{102}Ag	-	9E+4	4E-5	1E-7		-	-
		Y, see ^{102}Ag	-	8E+4	3E-5	1E-7		-	-
48	Cadmium-104[2]	D, all compounds except those given for W and Y	2E+4	7E+4	3E-5	9E-8		3E-4	3E-3
		W, sulfides, halides, and nitrates	-	1E+5	5E-5	2E-7		-	-
		Y, oxides and hydroxides	-	1E+5	5E-5	2E-7		-	-
48	Cadmium-107	D, see ^{104}Cd	2E+4	5E+4	2E-5	8E-8		3E-4	3E-3
		W, see ^{104}Cd	-	6E+4	2E-5	8E-8		-	-
		Y, see ^{104}Cd	-	5E+4	2E-5	7E-8		-	-
48	Cadmium-109	D, see ^{104}Cd	3E+2	4E+1	1E-8	-		-	-
			Kidneys (4E+2)	Kidneys (5E+1)	-	7E-11		6E-6	6E-5
		W, see ^{104}Cd	-	1E+2	5E-8	-		-	-
			-	Kidneys (1E+2)	-	2E-10		-	-
		Y, see ^{104}Cd	-	1E+2	5E-8	2E-10		-	-
48	Cadmium-113m	D, see ^{104}Cd	2E+1	2E+0	1E-9	-		-	-
			Kidneys (4E+1)	Kidneys (4E+0)	-	5E-12		5E-7	5E-6
		W, see ^{104}Cd	-	8E+0	4E-9	-		-	-
			-	Kidneys (1E+1)	-	2E-11		-	-
		Y, see ^{104}Cd	-	1E+1	5E-9	2E-11		-	-
48	Cadmium-113	D, see ^{104}Cd	2E+1	2E+0	9E-10	-		-	-
			Kidneys (3E+1)	Kidneys (3E+0)	-	5E-12		4E-7	4E-6
		W, see ^{104}Cd	-	8E+0	3E-9	-		-	-
			-	Kidneys (1E+1)	-	2E-11		-	-
		Y, see ^{104}Cd	-	1E+1	6E-9	2E-11		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
			Ingestion		Inhalation				
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
48	Cadmium-115m	D, see ^{104}Cd	3E+2	5E+1	2E-8	-		4E-6	4E-5
			-	Kidneys (8E+1)	-	1E-10		-	-
		W, see ^{104}Cd	-	1E+2	5E-8	2E-10		-	-
		Y, see ^{104}Cd	-	1E+2	6E-8	2E-10		-	-
48	Cadmium-115	D, see ^{104}Cd	9E+2	1E+3	6E-7	2E-9		-	-
			LLI wall (1E+3)	-	-	-		1E-5	1E-4
		W, see ^{104}Cd	-	1E+3	5E-7	2E-9		-	-
		Y, see ^{104}Cd	-	1E+3	6E-7	2E-9		-	-
48	Cadmium-117m	D, see ^{104}Cd	5E+3	1E+4	5E-6	2E-8		6E-5	6E-4
		W, see ^{104}Cd	-	2E+4	7E-6	2E-8		-	-
		Y, see ^{104}Cd	-	1E+4	6E-6	2E-8		-	-
48	Cadmium-117	D, see ^{104}Cd	5E+3	1E+4	5E-6	2E-8		6E-5	6E-4
		W, see ^{104}Cd	-	2E+4	7E-6	2E-8		-	-
		Y, see ^{104}Cd	-	1E+4	6E-6	2E-8		-	-
49	Indium-109	D, all compounds except those given for W	2E+4	4E+4	2E-5	6E-8		3E-4	3E-3
		W, oxides, hydroxides, halides, and nitrates	-	6E+4	3E-5	9E-8		-	-
49	Indium-110[2]	D, see ^{109}In	2E+4	4E+4	2E-5	6E-8		2E-4	2E-3
	(69.1 min)	W, see ^{109}In	-	6E+4	2E-5	8E-8		-	-
49	Indium-110	D, see ^{109}In	5E+3	2E+4	7E-6	2E-8		7E-5	7E-4
	(4.9 h)	W, see ^{109}In	-	2E+4	8E-6	3E-8		-	-
49	Indium-111	D, see ^{109}In	4E+3	6E+3	3E-6	9E-9		6E-5	6E-4
		W, see ^{109}In	-	6E+3	3E-6	9E-9		-	-
49	Indium-112[2]	D, see ^{109}In	2E+5	6E+5	3E-4	9E-7		2E-3	2E-2
	-	W, see ^{109}In	-	7E+5	3E-4	1E-6		-	-
49	Indium-113m[2]	D, see ^{109}In	5E+4	1E+5	6E-5	2E-7		7E-4	7E-3
	-	W, see ^{109}In	-	2E+5	8E-5	3E-7		-	-
49	Indium-114m	D, see ^{109}In	3E+2	6E+1	3E-8	9E-11		-	-
			LLI wall (4E+2)	-	-	-		5E-6	5E-5
		W, see ^{109}In	-	1E+2	4E-8	1E-10		-	-
49	Indium-115m	D, see ^{109}In	1E+4	4E+4	2E-5	6E-8		2E-4	2E-3
	-	W, see ^{109}In	-	5E+4	2E-5	7E-8		-	-
49	Indium-115	D, see ^{109}In	4E+1	1E+0	6E-10	2E-12		5E-7	5E-6
	-	W, see ^{109}In	-	5E+0	2E-9	8E-12		-	-
49	Indium-116m[2]	D, see ^{109}In	2E+4	8E+4	3E-5	1E-7		3E-4	3E-3
		W, see ^{109}In	-	1E+5	5E-5	2E-7		-	-
49	Indium-117m[2]	D, see ^{109}In	1E+4	3E+4	1E-5	5E-8		2E-4	2E-3
	-	W, see ^{109}In	-	4E+4	2E-5	6E-8		-	-
49	Indium-117[2]	D, see ^{109}In	6E+4	2E+5	7E-5	2E-7		8E-4	8E-3
		W, see ^{109}In	-	2E+5	9E-5	3E-7		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
49	Indium-119m[2]	D, see ^{109}In	4E+4	1E+5	5E-5	2E-7			-	-
			St wall (5E+4)	-	-	-			7E-4	7E-3
		W, see ^{109}In	-	1E+5	6E-5	2E-7			-	-
50	Tin-110	D, all compounds except those given for W	4E+3	1E+4	5E-6	2E-8			5E-5	5E-4
		W, sulfides, oxides, hydroxides, halides, nitrates, and stannic phosphate	-	1E+4	5E-6	2E-8			-	-
50	Tin-111[2]	D, see ^{110}Sn	7E+4	2E+5	9E-5	3E-7			1E-3	1E-2
		W, see ^{110}Sn	-	3E+5	1E-4	4E-7			-	-
50	Tin-113	D, see ^{110}Sn	2E+3	1E+3	5E-7	2E-9			-	-
			LLI wall (2E+3)	-	-	-			3E-5	3E-4
		W, see ^{110}Sn	-	5E+2	2E-7	8E-10			-	-
50	Tin-117m	D, see ^{110}Sn	2E+3	1E+3	5E-7	-			-	-
			LLI wall (2E+3)	Bone surf (2E+3)	-	3E-9			3E-5	3E-4
		W, see ^{110}Sn	-	1E+3	6E-7	2E-9			-	-
50	Tin-119m	D, see ^{110}Sn	3E+3	2E+3	1E-6	3E-9			-	-
			LLI wall (4E+3)	-	-	-			6E-5	6E-4
		W, see ^{110}Sn	-	1E+3	4E-7	1E-9			-	-
50	Tin-121m	D, see ^{110}Sn	3E+3	9E+2	4E-7	1E-9			-	-
			LLI wall (4E+3)	-	-	-			5E-5	5E-4
		W, see ^{110}Sn	-	5E+2	2E-7	8E-10			-	-
50	Tin-121	D, see ^{110}Sn	6E+3	2E+4	6E-6	2E-8			-	-
			LLI wall (6E+3)	-	-	-			8E-5	8E-4
		W, see ^{110}Sn	-	1E+4	5E-6	2E-8			-	-
50	Tin-123m[2]	D, see ^{110}Sn	5E+4	1E+5	5E-5	2E-7			7E-4	7E-3
		W, see ^{110}Sn	-	1E+5	6E-5	2E-7			-	-
50	Tin-123	D, see ^{110}Sn	5E+2	6E+2	3E-7	9E-10			-	-
			LLI wall (6E+2)	-	-	-			9E-6	9E-5
		W, see ^{110}Sn	-	2E+2	7E-8	2E-10			-	-
50	Tin-125	D, see ^{110}Sn	4E+2	9E+2	4E-7	1E-9			-	-
			LLI wall (5E+2)	-	-	-			6E-6	6E-5
		W, see ^{110}Sn	-	4E+2	1E-7	5E-10			-	-
50	Tin-126	D, see ^{110}Sn	3E+2	6E+1	2E-8	8E-11			4E-6	4E-5
		W, see ^{110}Sn	-	7E+1	3E-8	9E-11			-	-
50	Tin-127	D, see ^{110}Sn	7E+3	2E+4	8E-6	3E-8			9E-5	9E-4
		W, see ^{110}Sn	-	2E+4	8E-6	3E-8			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
50	Tin-128[2]	D, see ^{110}Sn	9E+3	3E+4	1E-5	4E-8			1E-4	1E-3
		W, see ^{110}Sn	-	4E+4	1E-5	5E-8			-	-
51	Antimony-115[2]	D, all compounds except those given for W	8E+4	2E+5	1E-4	3E-7			1E-3	1E-2
		W, oxides, hydroxides, halides, sulfides, sulfates, and nitrates	-	3E+5	1E-4	4E-7			-	-
51	Antimony-116m[2]	D, see ^{115}Sb	2E+4	7E+4	3E-5	1E-7			3E-4	3E-3
		W, see ^{115}Sb	-	1E+5	6E-5	2E-7			-	-
51	Antimony-116[2]	D, see ^{115}Sb	7E+4	3E+5	1E-4	4E-7			-	-
			St wall (9E+4)	-	-	-			1E-3	1E-2
		W, see ^{115}Sb	-	3E+5	1E-4	5E-7			-	-
51	Antimony-117	D, see ^{115}Sb	7E+4	2E+5	9E-5	3E-7			9E-4	9E-3
		W, see ^{115}Sb	-	3E+5	1E-4	4E-7			-	-
51	Antimony-118m	D, see ^{115}Sb	6E+3	2E+4	8E-6	3E-8			7E-5	7E-4
		W, see ^{115}Sb	5E+3	2E+4	9E-6	3E-8			-	-
51	Antimony-119	D, see ^{115}Sb	2E+4	5E+4	2E-5	6E-8			2E-4	2E-3
		W, see ^{115}Sb	2E+4	3E+4	1E-5	4E-8			-	-
51	Antimony-120[2] (16 min)	D, see ^{115}Sb	1E+5	4E+5	2E-4	6E-7			-	-
			St wall (2E+5)	-	-	-			2E-3	2E-2
		W, see ^{115}Sb	-	5E+5	2E-4	7E-7			-	-
51	Antimony-120	D, see ^{115}Sb	1E+3	2E+3	9E-7	3E-9			1E-5	1E-4
	(5.76 d)	W, see ^{115}Sb	9E+2	1E+3	5E-7	2E-9			-	-
51	Antimony-122	D, see ^{115}Sb	8E+2	2E+3	1E-6	3E-9			-	-
			LLI wall (8E+2)	-	-	-			1E-5	1E-4
		W, see ^{115}Sb	7E+2	1E+3	4E-7	2E-9			-	-
51	Antimony-124m[2]	D, see ^{115}Sb	3E+5	8E+5	4E-4	1E-6			3E-3	3E-2
		W, see ^{115}Sb	2E+5	6E+5	2E-4	8E-7			-	-
51	Antimony-124	D, see ^{115}Sb	6E+2	9E+2	4E-7	1E-9			7E-6	7E-5
		W, see ^{115}Sb	5E+2	2E+2	1E-7	3E-10			-	-
51	Antimony-125	D, see ^{115}Sb	2E+3	2E+3	1E-6	3E-9			3E-5	3E-4
		W, see ^{115}Sb	-	5E+2	2E-7	7E-10			-	-
51	Antimony-126m[2]	D, see ^{115}Sb	5E+4	2E+5	8E-5	3E-7			-	-
			St wall (7E+4)	-	-	-			9E-4	9E-3
		W, see ^{115}Sb	-	2E+5	8E-5	3E-7			-	-
51	Antimony-126	D, see ^{115}Sb	6E+2	1E+3	5E-7	2E-9			7E-6	7E-5
		W, see ^{115}Sb	5E+2	5E+2	2E-7	7E-10			-	-
51	Antimony-127	D, see ^{115}Sb	8E+2	2E+3	9E-7	3E-9			-	-
			LLI wall (8E+2)	-	-	-			1E-5	1E-4
		W, see ^{115}Sb	7E+2	9E+2	4E-7	1E-9			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
51	Antimony-128[2] (10.4 min)	D, see ^{115}Sb	8E+4 St wall (1E+5)	4E+5 -	2E-4 -	5E-7 -		- 1E-3	- 1E-2
		W, see ^{115}Sb	-	4E+5	2E-4	6E-7		-	-
51	Antimony-128 (9.01 h)	D, see ^{115}Sb	1E+3	4E+3	2E-6	6E-9		2E-5	2E-4
		W, see ^{115}Sb	-	3E+3	1E-6	5E-9		-	-
51	Antimony-129	D, see ^{115}Sb	3E+3	9E+3	4E-6	1E-8		4E-5	4E-4
		W, see ^{115}Sb	-	9E+3	4E-6	1E-8		-	-
51	Antimony-130[2]	D, see ^{115}Sb	2E+4	6E+4	3E-5	9E-8		3E-4	3E-3
		W, see ^{115}Sb	-	8E+4	3E-5	1E-7		-	-
51	Antimony-131[2]	D, see ^{115}Sb	1E+4 Thyroid (2E+4)	2E+4 Thyroid (4E+4)	1E-5 -	- 6E-8		- 2E-4	- 2E-3
		W, see ^{115}Sb	- -	2E+4 Thyroid (4E+4)	1E-5 -	6E-8		- -	- -
52	Tellurium-116	D, all compounds except those given for W	8E+3	2E+4	9E-6	3E-8		1E-4	1E-3
		W, oxides, hydroxides, and nitrates	-	3E+4	1E-5	4E-8		-	-
52	Tellurium-121m	D, see ^{116}Te	5E+2 Bone surf (7E+2)	2E+2 Bone surf (4E+2)	8E-8 -	- 5E-10		- 1E-5	- 1E-4
		W, see ^{116}Te	-	4E+2	2E-7	6E-10		-	-
52	Tellurium-121	D, see ^{116}Te	3E+3	4E+3	2E-6	6E-9		4E-5	4E-4
		W, see ^{116}Te	-	3E+3	1E-6	4E-9		-	-
52	Tellurium-123m	D, see ^{116}Te	6E+2 Bone surf (1E+3)	2E+2 Bone surf (5E+2)	9E-8 -	- 8E-10		- 1E-5	- 1E-4
		W, see ^{116}Te	-	5E+2	2E-7	8E-10		-	-
52	Tellurium-123	D, see ^{116}Te	5E+2 Bone surf (1E+3)	2E+2 Bone surf (5E+2)	8E-8 -	- 7E-10		- 2E-5	- 2E-4
		W, see ^{116}Te	- -	4E+2 Bone surf (1E+3)	2E-7 -	- 2E-9		- -	- -
52	Tellurium-125m	D, see ^{116}Te	1E+3 Bone surf (1E+3)	4E+2 Bone surf (1E+3)	2E-7 -	- 1E-9		- 2E-5	- 2E-4
		W, see ^{116}Te	-	7E+2	3E-7	1E-9		-	-
52	Tellurium-127m	D, see ^{116}Te	6E+2 -	3E+2 Bone surf (4E+2)	1E-7 -	- 6E-10		9E-6 -	9E-5 -
		W, see ^{116}Te	-	3E+2	1E-7	4E-10		-	-
52	Tellurium-127	D, see ^{116}Te	7E+3	2E+4	9E-6	3E-8		1E-4	1E-3
		W, see ^{116}Te	-	2E+4	7E-6	2E-8		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
52	Tellurium-129m	D, see ^{116}Te	5E+2	6E+2	3E-7	9E-10		7E-6	7E-5
		W, see ^{116}Te	-	2E+2	1E-7	3E-10		-	-
52	Tellurium-129[2]	D, see ^{116}Te	3E+4	6E+4	3E-5	9E-8		4E-4	4E-3
		W, see ^{116}Te	-	7E+4	3E-5	1E-7		-	-
52	Tellurium-131m	D, see ^{116}Te	3E+2	4E+2	2E-7	-		-	-
			Thyroid (6E+2)	Thyroid (1E+3)	-	2E-9		8E-6	8E-5
		W, see ^{116}Te	-	4E+2	2E-7	-		-	-
			-	Thyroid (9E+2)	-	1E-9		-	-
52	Tellurium-131[2]	D, see ^{116}Te	3E+3	5E+3	2E-6	-		-	-
			Thyroid (6E+3)	Thyroid (1E+4)	-	2E-8		8E-5	8E-4
		W, see ^{116}Te	-	5E+3	2E-6	-		-	-
			-	Thyroid (1E+4)	-	2E-8		-	-
52	Tellurium-132	D, see ^{116}Te	2E+2	2E+2	9E-8	-		-	-
			Thyroid (7E+2)	Thyroid (8E+2)	-	1E-9		9E-6	9E-5
		W, see ^{116}Te	-	2E+2	9E-8	-		-	-
			-	Thyroid (6E+2)	-	9E-10		-	-
52	Tellurium-133m[2]	D, see ^{116}Te	3E+3	5E+3	2E-6	-		-	-
			Thyroid (6E+3)	Thyroid (1E+4)	-	2E-8		9E-5	9E-4
		W, see ^{116}Te	-	5E+3	2E-6	-		-	-
			-	Thyroid (1E+4)	-	2E-8		-	-
52	Tellurium-133[2]	D, see ^{116}Te	1E+4	2E+4	9E-6	-		-	-
			Thyroid (3E+4)	Thyroid (6E+4)	-	8E-8		4E-4	4E-3
		W, see ^{116}Te	-	2E+4	9E-6	-		-	-
			-	Thyroid (6E+4)	-	8E-8		-	-
52	Tellurium-134[2]	D, see ^{116}Te	2E+4	2E+4	1E-5	-		-	-
			Thyroid (2E+4)	Thyroid (5E+4)	-	7E-8		3E-4	3E-3
		W, see ^{116}Te	-	2E+4	1E-5	-		-	-
			-	Thyroid (5E+4)	-	7E-8		-	-
53	Iodine-120m[2]	D, all compounds	1E+4	2E+4	9E-6	3E-8		-	-
			Thyroid (1E+4)	-	-	-		2E-4	2E-3
53	Iodine-120[2]	D, all compounds	4E+3	9E+3	4E-6	-		-	-
			Thyroid	Thyroid					

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(8E+3)	(1E+4)	-	2E-8	1E-4	1E-3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
53	Iodine-121	D, all compounds	1E+4	2E+4	8E-6	-		-	-
			Thyroid	Thyroid					
			(3E+4)	(5E+4)	-	7E-8		4E-4	4E-3
53	Iodine-123	D, all compounds	3E+3	6E+3	3E-6	-		-	-
			Thyroid	Thyroid					
			(1E+4)	(2E+4)	-	2E-8		1E-4	1E-3
53	Iodine-124	D, all compounds	5E+1	8E+1	3E-8	-		-	-
			Thyroid	Thyroid					
			(2E+2)	(3E+2)	-	4E-10		2E-6	2E-5
53	Iodine-125	D, all compounds	4E+1	6E+1	3E-8	-		-	-
			Thyroid	Thyroid					
			(1E+2)	(2E+2)	-	3E-10		2E-6	2E-5
53	Iodine-126	D, all compounds	2E+1	4E+1	1E-8	-		-	-
			Thyroid	Thyroid					
			(7E+1)	(1E+2)	-	2E-10		1E-6	1E-5
53	Iodine-128[2]	D, all compounds	4E+4	1E+5	5E-5	2E-7		-	-
			St wall						
			(6E+4)	-	-	-		8E-4	8E-3
53	Iodine-129	D, all compounds	5E+0	9E+0	4E-9	-		-	-
			Thyroid	Thyroid					
			(2E+1)	(3E+1)	-	4E-11		2E-7	2E-6
53	Iodine-130	D, all compounds	4E+2	7E+2	3E-7	-		-	-
			Thyroid	Thyroid					
			(1E+3)	(2E+3)	-	3E-9		2E-5	2E-4
53	Iodine-131	D, all compounds	3E+1	5E+1	2E-8	-		-	-
			Thyroid	Thyroid					
			(9E+1)	(2E+2)	-	2E-10		1E-6	1E-5
53	Iodine-132m[2]	D, all compounds	4E+3	8E+3	4E-6	-		-	-
			Thyroid	Thyroid					
			(1E+4)	(2E+4)	-	3E-8		1E-4	1E-3
53	Iodine-132	D, all compounds	4E+3	8E+3	3E-6	-		-	-
			Thyroid	Thyroid					
			(9E+3)	(1E+4)	-	2E-8		1E-4	1E-3
53	Iodine-133	D, all compounds	1E+2	3E+2	1E-7	-		-	-
			Thyroid	Thyroid					
			(5E+2)	(9E+2)	-	1E-9		7E-6	7E-5
53	Iodine-134[2]	D, all compounds	2E+4	5E+4	2E-5	6E-8		-	-
			Thyroid						
			(3E+4)	-	-	-		4E-4	4E-3
53	Iodine-135	D, all compounds	8E+2	2E+3	7E-7	-		-	-
			Thyroid	Thyroid					
			(3E+3)	(4E+3)	-	6E-9		3E-5	3E-4
54	Xenon-120[2]	Submersion[1]	-	-	1E-5	4E-8		-	-
54	Xenon-121[2]	Submersion[1]	-	-	2E-6	1E-8		-	-
54	Xenon-122	Submersion[1]	-	-	7E-5	3E-7		-	-
54	Xenon-123	Submersion[1]	-	-	6E-6	3E-8		-	-
54	Xenon-125	Submersion[1]	-	-	2E-5	7E-8		-	-

54	Xenon-127	Submersion[1]	-	-	1E-5	6E-8	-	-
54	Xenon-129m	Submersion[1]	-	-	2E-4	9E-7	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
54	Xenon-131m	Submersion[1]	-	-	4E-4	2E-6			-	-
54	Xenon-133m	Submersion[1]	-	-	1E-4	6E-7			-	-
54	Xenon-133	Submersion[1]	-	-	1E-4	5E-7			-	-
54	Xenon-135m[2]	Submersion[1]	-	-	9E-6	4E-8			-	-
54	Xenon-135	Submersion[1]	-	-	1E-5	7E-8			-	-
54	Xenon-138[2]	Submersion[1]	-	-	4E-6	2E-8			-	-
55	Cesium-125[2]	D, all compounds	5E+4	1E+5	6E-5	2E-7			-	-
			St wall							
			(9E+4)	-	-	-			1E-3	1E-2
55	Cesium-127	D, all compounds	6E+4	9E+4	4E-5	1E-7			9E-4	9E-3
55	Cesium-129	D, all compounds	2E+4	3E+4	1E-5	5E-8			3E-4	3E-3
55	Cesium-130[2]	D, all compounds	6E+4	2E+5	8E-5	3E-7			-	-
			St wall							
			(1E+5)	-	-	-			1E-3	1E-2
55	Cesium-131	D, all compounds	2E+4	3E+4	1E-5	4E-8			3E-4	3E-3
55	Cesium-132	D, all compounds	3E+3	4E+3	2E-6	6E-9			4E-5	4E-4
55	Cesium-134m	D, all compounds	1E+5	1E+5	6E-5	2E-7			-	-
			St wall							
			(1E+5)	-	-	-			2E-3	2E-2
55	Cesium-134	D, all compounds	7E+1	1E+2	4E-8	2E-10			9E-7	9E-6
55	Cesium-135m[2]	D, all compounds	1E+5	2E+5	8E-5	3E-7			1E-3	1E-2
55	Cesium-135	D, all compounds	7E+2	1E+3	5E-7	2E-9			1E-5	1E-4
55	Cesium-136	D, all compounds	4E+2	7E+2	3E-7	9E-10			6E-6	6E-5
55	Cesium-137	D, all compounds	1E+2	2E+2	6E-8	2E-10			1E-6	1E-5
55	Cesium-138[2]	D, all compounds	2E+4	6E+4	2E-5	8E-8			-	-
			St wall							
			(3E+4)	-	-	-			4E-4	4E-3
56	Barium-126[2]	D, all compounds	6E+3	2E+4	6E-6	2E-8			8E-5	8E-4
56	Barium-128	D, all compounds	5E+2	2E+3	7E-7	2E-9			7E-6	7E-5
56	Barium-131m[2]	D, all compounds	4E+5	1E+6	6E-4	2E-6			-	-
			St wall							
			(5E+5)	-	-	-			7E-3	7E-2
56	Barium-131	D, all compounds	3E+3	8E+3	3E-6	1E-8			4E-5	4E-4
56	Barium-133m	D, all compounds	2E+3	9E+3	4E-6	1E-8			-	-
			LLI wall							
			(3E+3)	-	-	-			4E-5	4E-4
56	Barium-133	D, all compounds	2E+3	7E+2	3E-7	9E-10			2E-5	2E-4
56	Barium-135m	D, all compounds	3E+3	1E+4	5E-6	2E-8			4E-5	4E-4
56	Barium-139[2]	D, all compounds	1E+4	3E+4	1E-5	4E-8			2E-4	2E-3
56	Barium-140	D, all compounds	5E+2	1E+3	6E-7	2E-9			-	-
			LLI wall							
			(6E+2)	-	-	-			8E-6	8E-5
56	Barium-141[2]	D, all compounds	2E+4	7E+4	3E-5	1E-7			3E-4	3E-3
56	Barium-142[2]	D, all compounds	5E+4	1E+5	6E-5	2E-7			7E-4	7E-3
57	Lanthanum-131[2]	D, all compounds except								
		those given for W	5E+4	1E+5	5E-5	2E-7			6E-4	6E-3

W, oxides and hydroxides	-	2E+5	7E-5	2E-7	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
	(μCi/ml)									
57	Lanthanum-132	D, see ^{131}La	3E+3	1E+4	4E-6	1E-8			4E-5	4E-4
		W, see ^{131}La	-	1E+4	5E-6	2E-8			-	-
57	Lanthanum-135	D, see ^{131}La	4E+4	1E+5	4E-5	1E-7			5E-4	5E-3
		W, see ^{131}La	-	9E+4	4E-5	1E-7			-	-
57	Lanthanum-137	D, see ^{131}La	1E+4	6E+1	3E-8	-			2E-4	2E-3
			-	Liver (7E+1)	-	1E-10			-	-
		W, see ^{131}La	-	3E+2	1E-7	-			-	-
			-	Liver (3E+2)	-	4E-10			-	-
57	Lanthanum-138	D, see ^{131}La	9E+2	4E+0	1E-9	5E-12			1E-5	1E-4
		W, see ^{131}La	-	1E+1	6E-9	2E-11			-	-
57	Lanthanum-140	D, see ^{131}La	6E+2	1E+3	6E-7	2E-9			9E-6	9E-5
		W, see ^{131}La	-	1E+3	5E-7	2E-9			-	-
57	Lanthanum-141	D, see ^{131}La	4E+3	9E+3	4E-6	1E-8			5E-5	5E-4
		W, see ^{131}La	-	1E+4	5E-6	2E-8			-	-
57	Lanthanum-142[2]	D, see ^{131}La	8E+3	2E+4	9E-6	3E-8			1E-4	1E-3
		W, see ^{131}La	-	3E+4	1E-5	5E-8			-	-
57	Lanthanum-143[2]	D, see ^{131}La	4E+4	1E+5	4E-5	1E-7			-	-
			St wall (4E+4)	-	-	-			5E-4	5E-3
		W, see ^{131}La	-	9E+4	4E-5	1E-7			-	-
58	Cerium-134	W, all compounds except those given for Y	5E+2	7E+2	3E-7	1E-9			-	-
			LLI wall (6E+2)	-	-	-			8E-6	8E-5
		Y, oxides, hydroxides, and fluorides		-	7E+2	3E-7	9E-10		-	-
58	Cerium-135	W, see ^{134}Ce	2E+3	4E+3	2E-6	5E-9			2E-5	2E-4
		Y, see ^{134}Ce	-	4E+3	1E-6	5E-9			-	-
58	Cerium-137m	W, see ^{134}Ce	2E+3	4E+3	2E-6	6E-9			-	-
			LLI wall (2E+3)	-	-	-			3E-5	3E-4
		Y, see ^{134}Ce	-	4E+3	2E-6	5E-9			-	-
58	Cerium-137	W, see ^{134}Ce	5E+4	1E+5	6E-5	2E-7			7E-4	7E-3
		Y, see ^{134}Ce	-	1E+5	5E-5	2E-7			-	-
58	Cerium-139	W, see ^{134}Ce	5E+3	8E+2	3E-7	1E-9			7E-5	7E-4
		Y, see ^{134}Ce	-	7E+2	3E-7	9E-10			-	-
58	Cerium-141	W, see ^{134}Ce	2E+3	7E+2	3E-7	1E-9			-	-
			LLI wall (2E+3)	-	-	-			3E-5	3E-4
		Y, see ^{134}Ce	-	6E+2	2E-7	8E-10			-	-
58	Cerium-143	W, see ^{134}Ce	1E+3	2E+3	8E-7	3E-9			-	-
			LLI wall (1E+3)	-	-	-			2E-5	2E-4
		Y, see ^{134}Ce	-	2E+3	7E-7	2E-9			-	-

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Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
58	Cerium-144	W, see ^{134}Ce	2E+2	3E+1	1E-8	4E-11		-	-
			LLI wall (3E+2)	-	-	-		3E-6	3E-5
		Y, see ^{134}Ce	-	1E+1	6E-9	2E-11		-	-
59	Praseodymium-136[2]	W, all compounds except those given for Y	5E+4	2E+5	1E-4	3E-7		-	-
			St wall (7E+4)	-	-	-		1E-3	1E-2
		Y, oxides, hydroxides, carbides, and fluorides	-	2E+5	9E-5	3E-7		-	-
59	Praseodymium-137[2]	W, see ^{136}Pr	4E+4	2E+5	6E-5	2E-7		5E-4	5E-3
		Y, see ^{136}Pr	-	1E+5	6E-5	2E-7		-	-
59	Praseodymium-138m	W, see ^{136}Pr	1E+4	5E+4	2E-5	8E-8		1E-4	1E-3
		Y, see ^{136}Pr	-	4E+4	2E-5	6E-8		-	-
59	Praseodymium-139	W, see ^{136}Pr	4E+4	1E+5	5E-5	2E-7		6E-4	6E-3
		Y, see ^{136}Pr	-	1E+5	5E-5	2E-7		-	-
59	Praseodymium-142m[2]	W, see ^{136}Pr	8E+4	2E+5	7E-5	2E-7		1E-3	1E-2
		Y, see ^{136}Pr	-	1E+5	6E-5	2E-7		-	-
59	Praseodymium-142	W, see ^{136}Pr	1E+3	2E+3	9E-7	3E-9		1E-5	1E-4
		Y, see ^{136}Pr	-	2E+3	8E-7	3E-9		-	-
59	Praseodymium-143	W, see ^{136}Pr	9E+2	8E+2	3E-7	1E-9		-	-
			LLI wall (1E+3)	-	-	-		2E-5	2E-4
		Y, see ^{136}Pr	-	7E+2	3E-7	9E-10		-	-
59	Praseodymium-144[2]	W, see ^{136}Pr	3E+4	1E+5	5E-5	2E-7		-	-
			St wall (4E+4)	-	-	-		6E-4	6E-3
		Y, see ^{136}Pr	-	1E+5	5E-5	2E-7		-	-
59	Praseodymium-145	W, see ^{136}Pr	3E+3	9E+3	4E-6	1E-8		4E-5	4E-4
		Y, see ^{136}Pr	-	8E+3	3E-6	1E-8		-	-
59	Praseodymium-147[2]	W, see ^{136}Pr	5E+4	2E+5	8E-5	3E-7		-	-
			St wall (8E+4)	-	-	-		1E-3	1E-2
		Y, see ^{136}Pr	-	2E+5	8E-5	3E-7		-	-
60	Neodymium-136[2]	W, all compounds except those given for Y	1E+4	6E+4	2E-5	8E-8		2E-4	2E-3
		Y, oxides, hydroxides, carbides, and fluorides	-	5E+4	2E-5	8E-8		-	-
60	Neodymium-138	W, see ^{136}Nd	2E+3	6E+3	3E-6	9E-9		3E-5	3E-4
		Y, see ^{136}Nd	-	5E+3	2E-6	7E-9		-	-
60	Neodymium-139m	W, see ^{136}Nd		5E+3	2E+4	7E-6	2E-8	7E-5	7E-4
		Y, see ^{136}Nd	-	1E+4	6E-6	2E-8		-	-
60	Neodymium-139[2]	W, see ^{136}Nd	9E+4	3E+5	1E-4	5E-7		1E-3	1E-2
		Y, see ^{136}Nd	-	3E+5	1E-4	4E-7		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
60	Neodymium-141	W, see ^{136}Nd	2E+5	7E+5	3E-4	1E-6			2E-3	2E-2
		Y, see ^{136}Nd	-	6E+5	3E-4	9E-7			-	-
60	Neodymium-147	W, see ^{136}Nd	1E+3	9E+2	4E-7	1E-9			-	-
			LLI wall (1E+3)	-	-	-			2E-5	2E-4
		Y, see ^{136}Nd	-	8E+2	4E-7	1E-9			-	-
60	Neodymium-149[2]	W, see ^{136}Nd	1E+4	3E+4	1E-5	4E-8			1E-4	1E-3
		Y, see ^{136}Nd	-	2E+4	1E-5	3E-8			-	-
60	Neodymium-151[2]	W, see ^{136}Nd	7E+4	2E+5	8E-5	3E-7			9E-4	9E-3
		Y, see ^{136}Nd	-	2E+5	8E-5	3E-7			-	-
61	Promethium-141[2]	W, all compounds except those given for Y	5E+4	2E+5	8E-5	3E-7			-	-
			St wall (6E+4)	-	-	-			8E-4	8E-3
		Y, oxides, hydroxides, carbides, and fluorides	-	2E+5	7E-5	2E-7			-	-
61	Promethium-143	W, see ^{141}Pm	5E+3	6E+2	2E-7	8E-10			7E-5	7E-4
		Y, see ^{141}Pm	-	7E+2	3E-7	1E-9			-	-
61	Promethium-144	W, see ^{141}Pm	1E+3	1E+2	5E-8	2E-10			2E-5	2E-4
		Y, see ^{141}Pm	-	1E+2	5E-8	2E-10			-	-
61	Promethium-145	W, see ^{141}Pm	1E+4	2E+2	7E-8	-			1E-4	1E-3
			-	Bone surf (2E+2)	-	3E-10			-	-
		Y, see ^{141}Pm	-	2E+2	8E-8	3E-10			-	-
61	Promethium-146	W, see ^{141}Pm	2E+3	5E+1	2E-8	7E-11			2E-5	2E-4
		Y see ^{141}Pm	-	4E+1	2E-8	6E-11			-	-
61	Promethium-147	W see ^{141}Pm	4E+3	1E+2	5E-8	-			-	-
			LLI wall (5E+3)	Bone surf (2E+2)	-	3E-10			7E-5	7E-4
		Y, see ^{141}Pm	-	1E+2	6E-8	2E-10			-	-
61	Promethium-148m	W, see ^{141}Pm	7E+2	3E+2	1E-7	4E-10			1E-5	1E-4
		Y, see ^{141}Pm	-	3E+2	1E-7	5E-10			-	-
61	Promethium-148	W, see ^{141}Pm	4E+2	5E+2	2E-7	8E-10			-	-
			LLI wall (5E+2)	-	-	-			7E-6	7E-5
		Y, see ^{141}Pm	-	5E+2	2E-7	7E-10			-	-
0			LLI wall (1E+3)	-	-	-			2E-5	2E-4
		Y, see ^{141}Pm	-	2E+3	8E-7	2E-9			-	-
61	Promethium-150	W, see ^{141}Pm	5E+3	2E+4	8E-6	3E-8			7E-5	7E-4
		Y, see ^{141}Pm	-	2E+4	7E-6	2E-8			-	-
61	Promethium-151	W, see ^{141}Pm	2E+3	4E+3	1E-6	5E-9			2E-5	2E-4
		Y, see ^{141}Pm	-	3E+3	1E-6	4E-9			-	-
62	Samarium-141m[2]	W, all compounds	3E+4	1E+5	4E-5	1E-7			4E-4	4E-3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
62	Samarium-141[2]	W, all compounds	5E+4	2E+5	8E-5	2E-7		-	-
			St wall (6E+4)	-	-	-		8E-4	8E-3
62	Samarium-142[2]	W, all compounds	8E+3	3E+4	1E-5	4E-8		1E-4	1E-3
62	Samarium-145	W, all compounds	6E+3	5E+2	2E-7	7E-10		8E-5	8E-4
62	Samarium-146	W, all compounds	1E+1	4E2	1E-11	-		-	-
			Bone surf (3E+1)	Bone surf (6E-2)	-	9E-14		3E-7	3E-6
62	Samarium-147	W, all compounds	2E+1	4E2	2E-11	-		-	-
			Bone surf (3E+1)	Bone surf (7E-2)	-	1E-13		4E-7	4E-6
62	Samarium-151	W, all compounds	1E+4	1E+2	4E-8	-		-	-
			LLI wall (1E+4)	Bone surf (2E+2)	-	2E-10		2E-4	2E-3
62	Samarium-153	W, all compounds	2E+3	3E+3	1E-6	4E-9		-	-
			LLI wall (2E+3)	-	-	-		3E-5	3E-4
62	Samarium-155[2]	W, all compounds	6E+4	2E+5	9E-5	3E-7		-	-
			St wall (8E+4)	-	-	-		1E-3	1E-2
62	Samarium-156	W, all compounds	5E+3	9E+3	4E-6	1E-8		7E-5	7E-4
63	Europium-145	W, all compounds	2E+3	2E+3	8E-7	3E-9		2E-5	2E-4
63	Europium-146	W, all compounds	1E+3	1E+3	5E-7	2E-9		1E-5	1E-4
63	Europium-147	W, all compounds	3E+3	2E+3	7E-7	2E-9		4E-5	4E-4
63	Europium-148	W, all compounds	1E+3	4E+2	1E-7	5E-10		1E-5	1E-4
63	Europium-149	W, all compounds	1E+4	3E+3	1E-6	4E-9		2E-4	2E-3
63	Europium-150 (12.62 h)	W, all compounds	3E+3	8E+3	4E-6	1E-8		4E-5	4E-4
63	Europium-150 (34.2 y)	W, all compounds	8E+2	2E+1	8E-9	3E-11		1E-5	1E-4
63	Europium-152m	W, all compounds	3E+3	6E+3	3E-6	9E-9		4E-5	4E-4
63	Europium-152	W, all compounds	8E+2	2E+1	1E-8	3E-11		1E-5	1E-4
63	Europium-154	W, all compounds	5E+2	2E+1	8E-9	3E-11		7E-6	7E-5
63	Europium-155	W, all compounds	4E+3	9E+1	4E-8	-		5E-5	5E-4
			-	Bone surf (1E+2)	-	2E-10		-	-
63	Europium-156	W, all compounds	6E+2	5E+2	2E-7	6E-10		8E-6	8E-5
63	Europium-157	W, all compounds	2E+3	5E+3	2E-6	7E-9		3E-5	3E-4
63	Europium-158[2]	W, all compounds	2E+4	6E+4	2E-5	8E-8		3E-4	3E-3
64	Gadolinium-145[2]	D, all compounds except those given for W	5E+4	2E+5	6E-5	2E-7		-	-
			St wall (5E+4)	-	-	-		6E-4	6E-3
		W, oxides, hydroxides, and fluorides	-	2E+5	7E-5	2E-7		-	-
64	Gadolinium-146	D, see ^{145}Gd	1E+3	1E+2	5E-8	2E-10		2E-5	2E-4

		W, see ^{145}Gd	-	3E+2	1E-7	4E-10	-	-
64	Gadolinium-147	D, see ^{145}Gd	2E+3	4E+3	2E-6	6E-9	3E-5	3E-4
		W, see ^{145}Gd	-	4E+3	1E-6	5E-9	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
64	Gadolinium-148	D, see ^{145}Gd	1E+1	8E+3	3E-12	-		-	-
			Bone surf (2E+1)	Bone surf (2E+2)	-	2E-14		3E-7	3E-6
		W, see ^{145}Gd	-	3E-2	1E-11	-		-	-
			-	Bone surf (6E-2)	-	8E-14		-	-
64	Gadolinium-149	D, see ^{145}Gd	3E+3	2E+3	9E-7	3E-9		4E-5	4E-4
		W, see ^{145}Gd	-	2E+3	1E-6	3E-9		-	-
64	Gadolinium-151	D, see ^{145}Gd	6E+3	4E+2	2E-7	-		9E-5	9E-4
			-	Bone surf (6E+2)	-	9E-10		-	-
		W, see ^{145}Gd	-	1E+3	5E-7	2E-9		-	-
64	Gadolinium-152	D, see ^{145}Gd	2E+1	1E-2	4E-12	-		-	-
			Bone surf (3E+1)	Bone surf (2E-2)	-	3E-14		4E-7	4E-6
		W, see ^{145}Gd	-	4E-2	2E-11	-		-	
			-	Bone surf (8E-2)	-	1E-13		-	-
64	Gadolinium-153	D, see ^{145}Gd	5E+3	1E+2	6E-8	-		6E-5	6E-4
			-	Bone surf (2E+2)	-	3E-10		-	-
		W, see ^{145}Gd	-	6E+2	2E-7	8E-10		-	-
64	Gadolinium-159	D, see ^{145}Gd	3E+3	8E+3	3E-6	1E-8		4E-5	4E-4
		W, see ^{145}Gd	-	6E+3	2E-6	8E-9		-	-
65	Terbium-147[2]	W, all compounds	9E+3	3E+4	1E-5	5E-8		1E-4	1E-3
65	Terbium-149	W, all compounds	5E+3	7E+2	3E-7	1E-9		7E-5	7E-4
65	Terbium-150	W, all compounds	5E+3	2E+4	9E-6	3E-8		7E-5	7E-4
65	Terbium-151	W, all compounds	4E+3	9E+3	4E-6	1E-8		5E-5	5E-4
65	Terbium-153	W, all compounds	5E+3	7E+3	3E-6	1E-8		7E-5	7E-4
65	Terbium-154	W, all compounds	2E+3	4E+3	2E-6	6E-9		2E-5	2E-4
65	Terbium-155	W, all compounds	6E+3	8E+3	3E-6	1E-8		8E-5	8E-4
65	Terbium-156m (5.0 h)	W, all compounds	2E+4	3E+4	1E-5	4E-8		2E-4	2E-3
65	Terbium-156m (24.4 h)	W, all compounds	7E+3	8E+3	3E-6	1E-8		1E-4	1E-3
65	Terbium-156	W, all compounds	1E+3	1E+3	6E-7	2E-9		1E-5	1E-4
65	Terbium-157	W, all compounds	5E+4	3E+2	1E-7	-		-	-
			LLI wall (5E+4)	Bone surf (6E+2)	-	8E-10		7E-4	7E-3
65	Terbium-158	W, all compounds	1E+3	2E+1	8E-9	3E-11		2E-5	2E-4
65	Terbium-160	W, all compounds	8E+2	2E+2	9E-8	3E-10		1E-5	1E-4
65	Terbium-161	W, all compounds	2E+3	2E+3	7E-7	2E-9		-	-
			LLI wall (2E+3)	-	-	-		3E-5	3E-4
66	Dysprosium-155	W, all compounds	9E+3	3E+4	1E-5	4E-8		1E-4	1E-3
66	Dysprosium-157	W, all compounds	2E+4	6E+4	3E-5	9E-8		3E-4	3E-3

66	Dysprosium-159	W, all compounds	1E+4	2E+3	1E-6	3E-9	2E-4	2E-3
66	Dysprosium-165	W, all compounds	1E+4	5E+4	2E-5	6E-8	2E-4	2E-3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
66	Dysprosium-166	W, all compounds	6E+2	7E+2	3E-7	1E-9		-	-
			LLI wall (8E+2)	-	-	-		1E-5	1E-4
67	Holmium-155[2]	W, all compounds	4E+4	2E+5	6E-5	2E-7		6E-4	6E-3
67	Holmium-157[2]	W, all compounds	3E+5	1E+6	6E-4	2E-6		4E-3	4E-2
67	Holmium-159[2]	W, all compounds	2E+5	1E+6	4E-4	1E-6		3E-3	3E-2
67	Holmium-161	W, all compounds	1E+5	4E+5	2E-4	6E-7		1E-3	1E-2
67	Holmium-162m[2]	W, all compounds	5E+4	3E+5	1E-4	4E-7		7E-4	7E-3
67	Holmium-162[2]	W, all compounds	5E+5	2E+6	1E-3	3E-6		-	-
			St wall (8E+5)	-	-	-		1E-2	1E-1
67	Holmium-164m[2]	W, all compounds	1E+5	3E+5	1E-4	4E-7		1E-3	1E-2
67	Holmium-164[2]	W, all compounds	2E+5	6E+5	3E-4	9E-7		-	-
			St wall (2E+5)	-	-	-		3E-3	3E-2
67	Holmium-166m	W, all compounds	6E+2	7E+0	3E-9	9E-12		9E-6	9E-5
67	Holmium-166	W, all compounds	9E+2	2E+3	7E-7	2E-9		-	-
			LLI wall (9E+2)	-	-	-		1E-5	1E-4
67	Holmium-167	W, all compounds	2E+4	6E+4	2E-5	8E-8		2E-4	2E-3
68	Erbium-161	W, all compounds	2E+4	6E+4	3E-5	9E-8		2E-4	2E-3
68	Erbium-165	W, all compounds	6E+4	2E+5	8E-5	3E-7		9E-4	9E-3
68	Erbium-169	W, all compounds	3E+3	3E+3	1E-6	4E-9		-	-
			LLI wall (4E+3)	-	-	-		5E-5	5E-4
68	Erbium-171	W, all compounds	4E+3	1E+4	4E-6	1E-8		5E-5	5E-4
68	Erbium-172	W, all compounds	1E+3	1E+3	6E-7	2E-9		-	-
			LLI wall (E+3)	-	-	-		2E-5	2E-4
69	Thulium-162[2]	W, all compounds	7E+4	3E+5	1E-4	4E-7		-	-
			St wall (7E+4)	-	-	-		1E-3	1E-2
69	Thulium-166	W, all compounds	4E+3	1E+4	6E-6	2E-8		6E-5	6E-4
69	Thulium-167	W, all compounds	2E+3	2E+3	8E-7	3E-9		-	-
			LLI wall (2E+3)	-	-	-		3E-5	3E-4
69	Thulium-170	W, all compounds	8E+2	2E+2	9E-8	3E-10		-	-
			LLI wall (1E+3)	-	-	-		1E-5	1E-4
69	Thulium-171	W, all compounds	1E+4	3E+2	1E-7	-		-	-
			LLI wall (1E+4)	Bone surf (6E+2)	-	8E-10		2E-4	2E-3
69	Thulium-172	W, all compounds	7E+2	1E+3	5E-7	2E-9		-	-
			LLI wall (8E+2)	-	-	-		1E-5	1E-4
69	Thulium-173	W, all compounds	4E+3	1E+4	5E-6	2E-8		6E-5	6E-4

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69	Thulium-175[2]	W, all compounds	7E+4	3E+5	1E-4	4E-7	-	-
			St wall (9E+4)	-	-	-	1E-3	1E-2

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
70	Ytterbium-162[2]	W, all compounds except those given for Y	7E+4	3E+5	1E-4	4E-7		1E-3	1E-2
		Y, oxides, hydroxides, and fluorides	-	3E+5	1E-4	4E-7		-	-
70	Ytterbium-166	W, see ^{162}Yb	1E+3	2E+3	8E-7	3E-9		2E-5	2E-4
		Y, see ^{162}Yb	-	2E+3	8E-7	3E-9		-	-
70	Ytterbium-167[2]	W, see ^{162}Yb	3E+5	8E+5	3E-4	1E-6		4E-3	4E-2
		Y, see ^{162}Yb	-	7E+5	3E-4	1E-6		-	-
70	Ytterbium-169	W, see ^{162}Yb	2E+3	8E+2	4E-7	1E-9		2E-5	2E-4
		Y, see ^{162}Yb	-	7E+2	3E-7	1E-9		-	-
70	Ytterbium-175	W, see ^{162}Yb	3E+3	4E+3	1E-6	5E-9		-	-
			LLI wall (3E+3)	-	-	-		4E-5	4E-4
		Y, see ^{162}Yb	-	3E+3	1E-6	5E-9		-	-
70	Ytterbium-177[2]	W, see ^{162}Yb	2E+4	5E+4	2E-5	7E-8		2E-4	2E-3
		Y, see ^{162}Yb	-	5E+4	2E-5	6E-8		-	-
70	Ytterbium-178[2]	W, see ^{162}Yb	1E+4	4E+4	2E-5	6E-8		2E-4	2E-3
		Y, see ^{162}Yb	-	4E+4	2E-5	5E-8		-	-
71	Lutetium-169	W, all compounds except those given for Y	3E+3	4E+3	2E-6	6E-9		3E-5	3E-4
		Y, oxides, hydroxides, and fluorides	-	4E+3	2E-6	6E-9		-	-
71	Lutetium-170	W, see ^{169}Lu	1E+3	2E+3	9E-7	3E-9		2E-5	2E-4
		Y, see ^{169}Lu	-	2E+3	8E-7	3E-9		-	-
71	Lutetium-171	W, see ^{169}Lu	2E+3	2E+3	8E-7	3E-9		3E-5	3E-4
		Y, see ^{169}Lu	-	2E+3	8E-7	3E-9		-	-
71	Lutetium-172	W, see ^{169}Lu	1E+3	1E+3	5E-7	2E-9		1E-5	1E-4
		Y, see ^{169}Lu	-	1E+3	5E-7	2E-9		-	-
71	Lutetium-173	W, see ^{169}Lu	5E+3	3E+2	1E-7	-		7E-5	7E-4
			-	Bone surf (5E+2)	-	6E-10		-	-
		Y, see ^{169}Lu	-	3E+2	1E-7	4E-10		-	-
71	Lutetium-174m	W, see ^{169}Lu	2E+3	2E+2	1E-7	-		-	-
			LLI wall (3E+3)	Bone surf (3E+2)	-	5E-10		4E-5	4E-4
		Y, see ^{169}Lu	-	2E+2	9E-8	3E-10		-	-
71	Lutetium-174	W, see ^{169}Lu	5E+3	1E+2	5E-8	-		7E-5	7E-4
			-	Bone surf (2E+2)	-	3E-10		-	-
		Y, see ^{169}Lu	-	2E+2	6E-8	2E-10		-	-
71	Lutetium-176m	W, see ^{169}Lu	8E+3	3E+4	1E-5	3E-8		1E-4	1E-3
		Y, see ^{169}Lu	-	2E+4	9E-6	3E-8		-	-
71	Lutetium-176	W, see ^{169}Lu	7E+2	5E+0	2E-9	-		1E-5	1E-4
			-	Bone surf (1E+1)	-	2E-11		-	-
		Y, see ^{169}Lu	-	8E+0	3E-9	1E-1		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
71	Lutetium-177m	W, see ^{169}Lu	7E+2	1E+2	5E-8	-			1E-5	1E-4
			-	Bone surf (1E+2)	-	2E-10			-	-
		Y, see ^{169}Lu	-	8E+1	3E-8	1E-10			-	-
71	Lutetium-177	W, see ^{169}Lu	2E+3	2E+3	9E-7	3E-9			-	-
			LLI wall (3E+3)	-	-	-			4E-5	4E-4
		Y, see ^{169}Lu	-	2E+3	9E-7	3E-9			-	-
71	Lutetium-178m[2]	W, see ^{169}Lu	5E+4	2E+5	8E-5	3E-7			-	-
			St. wall (6E+4)	-	-	-			8E-4	8E-3
		Y, see ^{169}Lu	-	2E+5	7E-5	2E-7			-	-
71	Lutetium-178[2]	W, see ^{169}Lu	4E+4	1E+5	5E-5	2E-7			-	-
			St wall (4E+4)	-	-	-			6E-4	6E-3
		Y, see ^{169}Lu	-	1E+5	5E-5	2E-7			-	-
71	Lutetium-179	W, see ^{169}Lu	6E+3	2E+4	8E-6	3E-8			9E-5	9E-4
		Y, see ^{169}Lu	-	2E+4	6E-6	3E-8			-	-
72	Hafnium-170	D, all compounds except those given for W	3E+3	6E+3	2E-6	8E-9			4E-5	4E-4
		W, oxides, hydroxides, carbides, and nitrates	-	5E+3	2E-6	6E-9			-	-
72	Hafnium-172	D, see ^{170}Hf	1E+3	9E+0	4E-9	-			2E-5	2E-4
			-	Bone surf (2E+1)	-	3E-11			-	-
		W, see ^{170}Hf	-	4E+1	2E-8	-			-	-
			-	Bone surf (6E+1)	-	8E-11			-	-
72	Hafnium-173	D, see ^{170}Hf	5E+3	1E+4	5E-6	2E-8			7E-5	7E-4
		W, see ^{170}Hf	-	1E+4	5E-6	2E-8			-	-
72	Hafnium-175	D, see ^{170}Hf	3E+3	9E+2	4E-7	-			4E-5	4E-4
			-	Bone surf (1E+3)	-	1E-9			-	-
		W, see ^{170}Hf	-	1E+3	5E-7	2E-9			-	-
72	Hafnium-177m[2]	D, see ^{170}Hf	2E+4	6E+4	2E-5	8E-8			3E-4	3E-3
		W, see ^{170}Hf	-	9E+4	4E-5	1E-7			-	-
72	Hafnium-178m	D, see ^{170}Hf	3E+2	1E+0	5E-10	-			3E-6	3E-5
			-	Bone surf (2E+0)	-	3E-12			-	-
		W, see ^{170}Hf	-	5E+0	2E-9	-			-	-
			-	Bone surf (9E+0)	-	1E-11			-	-
72	Hafnium-179m	D, see ^{170}Hf	1E+3	3E+2	1E-7	-			1E-5	1E-4
			-	Bone surf (6E+2)	-	8E-10			-	-
		W, see ^{170}Hf	-	6E+2	3E-7	8E-10			-	-

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Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
72	Hafnium-180m	D, see ^{170}Hf	7E+3	2E+4	9E-6	3E-8		1E-4	1E-3
		W, see ^{170}Hf	-	3E+4	1E-5	4E-8		-	-
72	Hafnium-181	D, see ^{170}Hf	1E+3	2E+2	7E-8	-		2E-5	2E-4
			-	Bone surf (4E+2)	-	6E-10		-	-
		W, see ^{170}Hf	-	4E+2	2E-7	6E-10		-	-
72	Hafnium-182m[2]	D, see ^{170}Hf	4E+4	9E+4	4E-5	1E-7		5E-4	5E-3
		W, see ^{170}Hf	-	1E+5	6E-5	2E-7		-	-
72	Hafnium-182	D, see ^{170}Hf	2E+2	8E-1	3E-10	-		-	-
			Bone surf (4E+2)	Bone surf (2E+0)	-	2E-12		5E-6	5E-5
		W, see^{170}Hf	-	3E+0	1E-9	-		-	-
			-	Bone surf (7E+0)	-	1E-11		-	-
72	Hafnium-183[2]	D, see ^{170}Hf	2E+4	5E+4	2E-5	6E-8		3E-4	3E-3
		W, see ^{170}Hf	-	6E+4	2E-5	8E-8		-	-
72	Hafnium-184	D, see ^{170}Hf	2E+3	8E+3	3E-6	1E-8		3E-5	3E-4
		W, see ^{170}Hf	-	6E+3	3E-6	9E-9		-	-
73	Tantalum-172[2]	W, all compounds except those given for Y	4E+4	1E+5	5E-5	2E-7		5E-4	5E-3
		Y, elemental Ta, oxides, hydroxides, halides, carbides, nitrates, and nitrides	-	1E+5	4E-5	1E-7		-	-
73	Tantalum-173	W, see ^{172}Ta	7E+3	2E+4	8E-6	3E-8		9E-5	9E-4
		Y, see ^{172}Ta	-	2E+4	7E-6	2E-8		-	-
73	Tantalum-174[2]	W, see ^{172}Ta	3E+4	1E+5	4E-5	1E-7		4E-4	4E-3
		Y, see ^{172}Ta	-	9E+4	4E-5	1E-7		-	-
73	Tantalum-175	W, see ^{172}Ta	6E+3	2E+4	7E-6	2E-8		8E-5	8E-4
		Y, see ^{172}Ta	-	1E+4	6E-6	2E-8		-	-
73	Tantalum-176	W, see ^{172}Ta	4E+3	1E+4	5E-6	2E-8		5E-5	5E-4
		Y, see ^{172}Ta	-	1E+4	5E-6	2E-8		-	-
73	Tantalum-177	W, see ^{172}Ta	1E+4	2E+4	8E-6	3E-8		2E-4	2E-3
		Y, see ^{172}Ta	-	2E+4	7E-6	2E-8		-	-
73	Tantalum-178	W, see ^{172}Ta	2E+4	9E+4	4E-5	1E-7		2E-4	2E-3
		Y, see ^{172}Ta	-	7E+4	3E-5	1E-7		-	-
73	Tantalum-179	W, see ^{172}Ta	2E+4	5E+3	2E-6	8E-9		3E-4	3E-3
		Y, see ^{172}Ta	-	9E+2	4E-7	1E-9		-	-
73	Tantalum-180m	W, see ^{172}Ta	2E+4	7E+4	3E-5	9E-8		3E-4	3E-3
		Y, see ^{172}Ta	-	6E+4	2E-5	8E-8		-	-
73	Tantalum-180	W, see ^{172}Ta	1E+3	4E+2	2E-7	6E-10		2E-5	2E-4
		Y, see ^{172}Ta	-	2E+1	1E-8	3E-11		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
			Ingestion		Inhalation					
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
73	Tantalum-182m[2]	W, see ^{172}Ta	2E+5	5E+5	2E-4	8E-7			-	-
			St wall							
			(2E+5)	-	-	-			3E-3	3E-2
		Y, see ^{172}Ta	-	4E+5	2E-4	6E-7			-	-
73	Tantalum-182	W, see ^{172}Ta	8E+2	3E+2	1E-7	5E-10			1E-5	1E-4
		Y, see ^{172}Ta	-	1E+2	6E-8	2E-10			-	-
73	Tantalum-183	W, see ^{172}Ta	9E+2	1E+3	5E-7	2E-9			-	-
			LLI wall							
			(1E+3)	-	-	-			2E-5	2E-4
		Y, see ^{172}Ta	-	1E+3	4E-7	1E-9			-	-
73	Tantalum-184	W, see ^{172}Ta	2E+3	5E+3	2E-6	8E-9			3E-5	3E-4
		Y, see ^{172}Ta	-	5E+3	2E-6	7E-9			-	-
73	Tantalum-185[2]	W, see ^{172}Ta	3E+4	7E+4	3E-5	1E-7			4E-4	4E-3
		Y, see ^{172}Ta	-	6E+4	3E-5	9E-8			-	-
73	Tantalum-186[2]	W, see ^{172}Ta	5E+4	2E+5	1E-4	3E-7			-	-
			St wall							
			(7E+4)	-	-	-			1E-3	1E-2
		Y, see ^{172}Ta	-	2E+5	9E-5	3E-7			-	-
74	Tungsten-176	D, all compounds	1E+4	5E+4	2E-5	7E-8			1E-4	1E-3
74	Tungsten-177	D, all compounds	2E+4	9E+4	4E-5	1E-7			3E-4	3E-3
74	Tungsten-178	D, all compounds	5E+3	2E+4	8E-6	3E-8			7E-5	7E-4
74	Tungsten-179[2]	D, all compounds	5E+5	2E+6	7E-4	2E-6			7E-3	7E-2
74	Tungsten-181	D, all compounds	2E+4	3E+4	1E-5	5E-8			2E-4	2E-3
74	Tungsten-185	D, all compounds	2E+3	7E+3	3E-6	9E-9			-	-
			LLI wall							
			(3E+3)	-	-	-			4E-5	4E-4
74	Tungsten-187	D, all compounds	2E+3	9E+3	4E-6	1E-8			3E-5	3E-4
74	Tungsten-188	D, all compounds	4E+2	1E+3	5E-7	2E-9			-	-
			LLI wall							
			(5E+2)	-	-	-			7E-6	7E-5
75	Rhenium-177[2]	D, all compounds except								
		those given for W	9E+4	3E+5	1E-4	4E-7			-	-
			St wall							
			(1E+5)	-	-	-			2E-3	2E-2
		W, oxides, hydroxides,								
		and nitrates	-	4E+5	1E-4	5E-7			-	-
75	Rhenium-178[2]	D, see ^{177}Re	7E+4	3E+5	1E-4	4E-7			-	-
			St wall							
			(1E+5)	-	-	-			1E-3	1E-2
		W, see ^{177}Re	-	3E+5	1E-4	4E-7			-	-
75	Rhenium-181	D, see ^{177}Re	5E+3	9E+3	4E-6	1E-8			7E-5	7E-4
		W, see ^{177}Re	-	9E+3	4E-6	1E-8			-	-
75	Rhenium-182	D, see ^{177}Re	7E+3	1E+4	5E-6	2E-8			9E-5	9E-4
	(12.7 h)	W, see ^{177}Re	-	2E+4	6E-6	2E-8			-	-
75	Rhenium-182	D, see ^{177}Re	1E+3	2E+3	1E-6	3E-9			2E-5	2E-4
	(64.0 h)	W, see ^{177}Re	-	2E+3	9E-7	3E-9			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
75	Rhenium-184m	D, see ^{177}Re	2E+3	3E+3	1E-6	4E-9		3E-5	3E-4
		W, see ^{177}Re	-	4E+2	2E-7	6E-10		-	-
75	Rhenium-184	D, see ^{177}Re	2E+3	4E+3	1E-6	5E-9		3E-5	3E-4
		W, see ^{177}Re	-	1E+3	6E-7	2E-9		-	-
75	Rhenium-186m	D, see ^{177}Re	1E+3	2E+3	7E-7	-		-	-
			St wall (2E+3)	St wall (2E+3)	-	3E-9		2E-5	2E-4
		W, see ^{177}Re	-	2E+2	6E-8	2E-10		-	-
75	Rhenium-186	D, see ^{177}Re	2E+3	3E+3	1E-6	4E-9		3E-5	3E-4
		W, see ^{177}Re	-	2E+3	7E-7	2E-9		-	-
75	Rhenium-187	D, see ^{177}Re	6E+5	8E+5	4E-4	-		8E-3	8E-2
			St wall -	(9E+5)	-	1E-6		-	-
		W, see ^{177}Re	-	1E+5	4E-5	1E-7		-	-
75	Rhenium-188m[2]	D, see ^{177}Re	8E+4	1E+5	6E-5	2E-7		1E-3	1E-2
		W, see ^{177}Re	-	1E+5	6E-5	2E-7		-	-
75	Rhenium-188	D, see ^{177}Re	2E+3	3E+3	1E-6	4E-9		2E-5	2E-4
		W, see ^{177}Re	-	3E+3	1E-6	4E-9		-	-
75	Rhenium-189	D, see ^{177}Re	3E+3	5E+3	2E-6	7E-9		4E-5	4E-4
		W, see ^{177}Re	-	4E+3	2E-6	6E-9		-	-
76	Osmium-180[2]	D, all compounds except those given for W and Y	1E+5	4E+5	2E-4	5E-7		1E-3	1E-2
		W, halides and nitrates	-	5E+5	2E-4	7E-7		-	-
		Y, oxides and hydroxides	-	5E+5	2E-4	6E-7		-	-
76	Osmium-181[2]	D, see ^{180}Os	1E+4	4E+4	2E-5	6E-8		2E-4	2E-3
		W, see ^{180}Os	-	5E+4	2E-5	6E-8		-	-
		Y, see ^{180}Os	-	4E+4	2E-5	6E-8		-	-
76	Osmium-182	D, see ^{180}Os	2E+3	6E+3	2E-6	8E-9		3E-5	3E-4
		W, see ^{180}Os	-	4E+3	2E-6	6E-9		-	-
		Y, see ^{180}Os	-	4E+3	2E-6	6E-9		-	-
76	Osmium-185	D, see ^{180}Os	2E+3	5E+2	2E-7	7E-10		3E-5	3E-4
		W, see ^{180}Os	-	8E+2	3E-7	1E-9		-	-
		Y, see ^{180}Os	-	8E+2	3E-7	1E-9		-	-
76	Osmium-189m	D, see ^{180}Os	8E+4	2E+5	1E-4	3E-7		1E-3	1E-2
		W, see ^{180}Os	-	2E+5	9E-5	3E-7		-	-
		Y, see ^{180}Os	-	2E+5	7E-5	2E-7		-	-
76	Osmium-191m	D, see ^{180}Os	1E+4	3E+4	1E-5	4E-8		2E-4	2E-3
		W, see ^{180}Os	-	2E+4	8E-6	3E-8		-	-
		Y, see ^{180}Os	-	2E+4	7E-6	2E-8		-	-
76	Osmium-191	D, see ^{180}Os	2E+3	2E+3	9E-7	3E-9		-	-
			LLI wall (3E+3)	-	-	-		3E-5	3E-4
		W, see ^{180}Os	-	2E+3	7E-7	2E-9		-	-
		Y, see ^{180}Os	-	1E+3	6E-7	2E-9		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
76	Osmium-193	D, see ^{180}Os	2E+3	5E+3	2E-6	6E-9			-	-
			LLI wall (2E+3)	-	-	-			2E-5	2E-4
		W, see ^{180}Os	-	3E+3	1E-6	4E-9			-	-
		Y, see ^{180}Os	-	3E+3	1E-6	4E-9			-	-
76	Osmium-194	D, see ^{180}Os	4E+2	4E+1	2E-8	6E-11			-	-
			LLI wall (6E+2)	-	-	-			8E-6	8E-5
		W, see ^{180}Os	-	6E+1	2E-8	8E-11			-	-
		Y, see ^{180}Os	-	8E+0	3E-9	1E-11			-	-
77	Iridium-182[2]	D, all compounds except those given for W and Y	4E+4	1E+5	6E-5	2E-7			-	-
			St wall (4E+4)	-	-	-			6E-4	6E-3
		W, halides, nitrates, and metallic iridium	-	2E+5	6E-5	2E-7			-	-
		Y, oxides and hydroxides	-	1E+5	5E-5	2E-7			-	-
77	Iridium-184	D, see ^{182}Ir	8E+3	2E+4	1E-5	3E-8			1E-4	1E-3
		W, see ^{182}Ir	-	3E+4	1E-5	5E-8			-	-
		Y, see ^{182}Ir	-	3E+4	1E-5	4E-8			-	-
77	Iridium-185	D, see ^{182}Ir	5E+3	1E+4	5E-6	2E-8			7E-5	7E-4
		W, see^{182}Ir	-	1E+4	5E-6	2E-8			-	-
		Y, see ^{182}Ir	-	1E+4	4E-6	1E-8			-	-
77	Iridium-186	D, see ^{182}Ir	2E+3	8E+3	3E-6	1E-8			3E-5	3E-4
		W, see ^{182}Ir	-	6E+3	3E-6	9E-9			-	-
		Y, see ^{182}Ir	-	6E+3	2E-6	8E-9			-	-
77	Iridium-187	D, see ^{182}Ir	1E+4	3E+4	1E-5	5E-8			1E-4	1E-3
		W, see ^{182}Ir	-	3E+4	1E-5	4E-8			-	-
		Y, see ^{182}Ir	-	3E+4	1E-5	4E-8			-	-
77	Iridium-188	D, see ^{182}Ir	2E+3	5E+3	2E-6	6E-9			3E-5	3E-4
		W, see ^{182}Ir	-	4E+3	1E-6	5E-9			-	-
		Y, see ^{182}Ir	-	3E+3	1E-6	5E-9			-	-
77	Iridium-189	D, see ^{182}Ir	5E+3	5E+3	2E-6	7E-9			-	-
			LLI wall (5E+3)	-	-	-			7E-5	7E-4
		W, see ^{182}Ir	-	4E+3	2E-6	5E-9			-	-
		Y, see ^{182}Ir	-	4E+3	1E-6	5E-9			-	-
77	Iridium-190m[2]	D, see ^{182}Ir	2E+5	2E+5	8E-5	3E-7			2E-3	2E-2
		W, see ^{182}Ir	-	2E+5	9E-5	3E-7			-	-
		Y, see ^{182}Ir	-	2E+5	8E-5	3E-7			-	-
77	Iridium-190	D, see ^{182}Ir	1E+3	9E+2	4E-7	1E-9			1E-5	1E-4
		W, see ^{182}Ir	-	1E+3	4E-7	1E-9			-	-
		Y, see ^{182}Ir	-	9E+2	4E-7	1E-9			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
77	Iridium-192m	D, see ^{182}Ir	3E+3	9E+1	4E-8	1E-10		4E-5	4E-4
		W, see ^{182}Ir	-	2E+2	9E-8	3E-10		-	-
		Y, see ^{182}Ir	-	2E+1	6E-9	2E-11		-	-
77	Iridium-192	D, see ^{182}Ir	9E+2	3E+2	1E-7	4E-10		1E-5	1E-4
		W, see ^{182}Ir	-	4E+2	2E-7	6E-10		-	-
		Y, see ^{182}Ir	-	2E+2	9E-8	3E-10		-	-
77	Iridium-194m	D, see ^{182}Ir	6E+2	9E+1	4E-8	1E-10		9E-6	9E-5
		W, see ^{182}Ir	-	2E+2	7E-8	2E-10		-	-
		Y, see ^{182}Ir	-	1E+2	4E-8	1E-10		-	-
77	Iridium-194	D, see ^{182}Ir	1E+3	3E+3	1E-6	4E-9		1E-5	1E-4
		W, see ^{182}Ir	-	2E+3	9E-7	3E-9		-	-
		Y, see ^{182}Ir	-	2E+3	8E-7	3E-9		-	-
77	Iridium-195m	D, see ^{182}Ir	8E+3	2E+4	1E-5	3E-8		1E-4	1E-3
		W, see ^{182}Ir	-	3E+4	1E-5	4E-8		-	-
		Y, see ^{182}Ir	-	2E+4	9E-6	3E-8		-	-
77	Iridium-195	D, see ^{182}Ir	1E+4	4E+4	2E-5	6E-8		2E-4	2E-3
		W, see ^{182}Ir	-	5E+4	2E-5	7E-8		-	-
		Y, see ^{182}Ir	-	4E+4	2E-5	6E-8		-	-
78	Platinum-186	D, all compounds	1E+4	4E+4	2E-5	5E-8		2E-4	2E-3
78	Platinum-188	D, all compounds	2E+3	2E+3	7E-7	2E-9		2E-5	2E-4
78	Platinum-189	D, all compounds	1E+4	3E+4	1E-5	4E-8		1E-4	1E-3
78	Platinum-191	D, all compounds	4E+3	8E+3	4E-6	1E-8		5E-5	5E-4
78	Platinum-193m	D, all compounds	3E+3	6E+3	3E-6	8E-9		-	-
			LLI wall (3E+4)	-	-	-		4E-5	4E-4
78	Platinum-193	D, all compounds	4E+4	2E+4	1E-5	3E-8		-	-
			LLI wall (5E+4)	-	-	-		6E-4	6E-3
78	Platinum-195m	D, all compounds	2E+3	4E+3	2E-6	6E-9		-	-
			LLI wall (2E+3)	-	-	-		3E-5	3E-4
78	Platinum-197m[2]	D, all compounds	2E+4	4E+4	2E-5	6E-8		2E-4	2E-3
78	Platinum-197	D, all compounds	3E+3	1E+4	4E-6	1E-8		4E-5	4E-4
78	Platinum-199[2]	D, all compounds	5E+4	1E+5	6E-5	2E-7		7E-4	7E-3
78	Platinum-200	D, all compounds	1E+3	3E+3	1E-6	5E-9		2E-5	2E-4
79	Gold-193	D, all compounds except those given for W and Y	9E+3	3E+4	1E-5	4E-8		1E-4	1E-3
		W, halides and nitrates	-	2E+4	9E-6	3E-8		-	-
		Y, oxides and hydroxides	-	2E+4	8E-6	3E-8		-	-
79	Gold-194	D, see ^{193}Au	3E+3	8E+3	3E-6	1E-8		4E-5	4E-4
		W, see ^{193}Au	-	5E+3	2E-6	8E-9		-	-
		Y, see ^{193}Au	-	5E+3	2E-6	7E-9		-	-
79	Gold-195	D see ^{193}Au	5E+3	1E+4	5E-6	2E-8		7E-5	7E-4
		W see ^{193}Au	-	1E+3	6E-7	2E-9		-	-
		Y see ^{193}Au	-	4E+2	2E-7	6E-10		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
	Average		Ingestion		Inhalation				
Atomic		Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
79	Gold-198m	D see ^{193}Au	1E+3	3E+3	1E-6	4E-9		1E-5	1E-4
		W see ^{193}Au	-	1E+3	5E-7	2E-9		-	-
		Y see ^{193}Au	-	1E+3	5E-7	2E-9		-	-
79	Gold-198	D see ^{193}Au	1E+3	4E+3	2E-6	5E-9		2E-5	2E-4
		W see ^{193}Au	-	2E+3	8E-7	3E-9		-	-
		Y see ^{193}Au	-	2E+3	7E-7	2E-9		-	-
79	Gold-199	D see ^{193}Au	3E+3	9E+3	4E-6	1E-8		-	-
			LLI wall						
			(3E+3)	-	-	-		4E-5	4E-4
		W, see ^{193}Au	-	4E+3	2E-6	6E-9		-	-
		Y, see ^{193}Au	-	4E+3	2E-6	5E-9		-	-
79	Gold-200m	D, see ^{193}Au	1E+3	4E+3	1E-6	5E-9		2E-5	2E-4
		W, see ^{193}Au	-	3E+3	1E-6	4E-9		-	-
		Y, see ^{193}Au	-	2E+4	1E-6	3E-9		-	-
79	Gold-200[2]	D, see ^{193}Au	3E+4	6E+4	3E-5	9E-8		4E-4	4E-3
		W, see ^{193}Au	-	8E+4	3E-5	1E-7		-	-
		Y, see ^{193}Au	-	7E+4	3E-5	1E-7		-	-
79	Gold-201[2]	D, see ^{193}Au	7E+4	2E+5	9E-5	3E-7		-	-
			St wall						
			(9E+4)	-	-	-		1E-3	1E-2
		W, see ^{193}Au	-	2E+5	1E-4	3E-7		-	-
		Y, see ^{193}Au	-	2E+5	9E-5	3E-7		-	-
80	Mercury-193m	Vapor	-	8E+3	4E-6	1E-8		-	-
		Organic D	4E+3	1E+4	5E-6	2E-8		6E-5	6E-4
		D, sulfates	3E+3	9E+3	4E-6	1E-8		4E-5	4E-4
		W, oxides, hydroxides,							
		halides, nitrates, and							
		sulfides	-	8E+3	3E-6	1E-8		-	-
80	Mercury-193	Vapor	-	3E+4	1E-5	4E-8		-	-
		Organic D	2E+4	6E+4	3E-5	9E-8		3E-4	3E-3
		D, see ^{193m}Hg	2E+4	4E+4	2E-5	6E-8		2E-4	2E-3
		W, see ^{193m}Hg	-	4E+4	2E-5	6E-8		-	-
80	Mercury-194	Vapor	-	3E+1	1E-8	4E-11		-	-
		Organic D	2E+1	3E+1	1E-8	4E-11		2E-7	2E-6
		D, see ^{193m}Hg	8E+2	4E+1	2E-8	6E-11		1E-5	1E-4
		W, see ^{193m}Hg	-	1E+2	5E-8	2E-10		-	-
80	Mercury-195m	Vapor	-	4E+3	2E-6	6E-9		-	-
		Organic D	3E+3	6E+3	3E-6	8E-9		4E-5	4E-4
		D, see ^{193m}Hg	2E+3	5E +3	2E-6	7E-9		3E-5	3E-4
		W, see ^{193m}Hg	-	4E+3	2E-6	5E-9		-	-
80	Mercury-195	Vapor	-	3E+4	1E-5	4E-8		-	-
		Organic D	2E+4	5E+4	2E-5	6E-8		2E-4	2E-3
		D, see ^{193m}Hg	1E+4	4E+ 4	1E-5	5E-8		2E-4	2E-3
		W, see ^{193m}Hg	-	3E+4	1E-5	5E-8		-	-

Radiation Regulatory Agency

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1		Col. 2	Col.3		Col. 1	Col. 2
	Monthly		Oral						
			Ingestion		Inhalation				
Atomic	Average	Radionuclide	Class	ALI		ALI	DAC	Air	
	Water		Concentration						
No.			(μCi)		(μCi)	(μCi/ml)	(μCi/ml)	(μCi/ml)	
	(μCi/ml)								
80	Mercury-197m	Vapor	-	5E+3	2E-6	7E-9		-	-
		Organic D	4E+3	9E+3	4E-6	1E-8		5E-5	5E-4
		D, see ^{193m}Hg	3E+3	7E+3	3E-6	1E-8		4E-5	4E-4
		W, see ^{193m}Hg	-	5E+3	2E-6	7E-9		-	-
80	Mercury-197	Vapor	-	8E+3	4E-6	1E-8		-	-
		Organic D	7E+3	1E+4	6E-6	2E-8		9E-5	9E-4
		D, see ^{193m}Hg	6E+3	1E+4	5E-6	2E-8		8E-5	8E-4
		W, see ^{193m}Hg	-	9E+3	4E-6	1E-8		-	-
80	Mercury-199m[2]	Vapor	-	8E+4	3E-5	1E-7		-	-
		Organic D	6E+4	2E+5	7E-5	2E-7		-	-
			St wall (1E+5)	-	-	-		1E-3	1E-2
		D, see ^{193m}Hg	6E+4	1E+5	6E-5	2E-7		8E-4	8E-3
		W, see ^{193m}Hg	-	2E+5	7E-5	2E-7		-	-
80	Mercury-203	Vapor	-	8E+2	4E-7	1E-9		-	-
		Organic D	5E+2	8E+2	3E-7	1E-9		7E-6	7E-5
		D, see ^{193m}Hg	2E+3	1E+3	5E-7	2E-9		3E-5	3E-4
		W, see ^{193m}Hg	-	1E+3	5E-7	2E-9		-	-
81	Thallium-194m[2]	D, all compounds	5E+4	2E+5	6E-5	2E-7		-	-
			St wall (7E+4)	-	-	-		1E-3	1E-2
81	Thallium-194[2]	D, all compounds	3E+5	6E+5	2E-4	8E-7		-	-
			St wall (3E+5)	-	-	-		4E-3	4E-2
81	Thallium-195[2]	D, all compounds	6E+4	1E+5	5E-5	2E-7		9E-4	9E-3
81	Thallium-197	D, all compounds	7E+4	1E+5	5E-5	2E-7		1E-3	1E-2
81	Thallium-198m[2]	D, all compounds	3E+4	5E+4	2E-5	8E-8		4E-4	4E-3
81	Thallium-198	D, all compounds	2E+4	3E+4	1E-5	5E-8		3E-4	3E-3
81	Thallium-199	D, all compounds	6E+4	8E+4	4E-5	1E-7		9E-4	9E-3
81	Thallium-200	D, all compounds	8E+3	1E+4	5E-6	2E-8		1E-4	1E-3
81	Thallium-201	D, all compounds	2E+4	2E+4	9E-6	3E-8		2E-4	2E-3
81	Thallium-202	D, all compounds	4E+3	5E+3	2E-6	7E-9		5E-5	5E-4
81	Thallium-204	D, all compounds	2E+3	2E+3	9E-7	3E-9		2E-5	2E-4
82	Lead-195m[2]	D, all compounds	6E+4	2E+5	8E-5	3E-7		8E-4	8E-3
82	Lead-198	D, all compounds	3E+4	6E+4	3E-5	9E-8		4E-4	4E-3
82	Lead-199[2]	D, all compounds	2E+4	7E+4	3E-5	1E-7		3E-4	3E-3
82	Lead-200	D, all compounds	3E+3	6E+3	3E-6	9E-9		4E-5	4E-4
82	Lead-201	D, all compounds	7E+3	2E+4	8E-6	3E-8		1E-4	1E-3
82	Lead-202m 1E-3	D, all compounds	9E+3	3E+4	1E-5	4E-8		1E-4	
82	Lead-202 2E-5	D, all compounds	1E+2	5E+1	2E-8	7E-11		2E-6	
82	Lead-203 7E-4	D, all compounds	5E+3	9E+3	4E-6	1E-8		7E-5	
82	Lead-205 5E-4	D, all compounds	4E+3	1E+3	6E-7	2E-9		5E-5	

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82	Lead-209	D, all compounds	2E+4	6E+4	2E-5	8E-8	3E-4	3E-3
82	Lead-210	D, all compounds	6E1	2E1	1E-10	-	-	-
			Bone surf (1E+0)	Bone surf (4E-1)	-	6E-13	1E-8	1E-7
82	Lead-211[2]	D, all compounds	1E+4	6E+2	3E-7	9E-10	2E-4	2E+3

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
82	Lead-212	D, all compounds	8E+1	3E+1	1E-8	5E-11			-	
	-		Bone surf							
			(1E+2)	-	-	-			2E-6	2E-5
82	Lead-214[2]	D, all compounds	9E+3	8E+2	3E-7	1E-9			1E-4	
	1E-3									
83	Bismuth-200[2]	D, nitrates	3E+4	8E+4	4E-5	1E-7			4E-4	4E-3
		W, all other compounds	-	1E+5	4E-5	1E-7			-	-
83	Bismuth-201[2]	D, see ^{200}Bi	1E+4	3E+4	1E-5	4E-8			2E-4	2E-3
		W, see ^{200}Bi	-	4E+4	2E-5	5E-8			-	-
83	Bismuth-202[2]	D, see ^{200}Bi	1E+4	4E+4	2E-5	6E-8			2E-4	2E-3
		W, see ^{200}Bi	-	8E+4	3E-5	1E-7			-	-
83	Bismuth-203	D, see ^{200}Bi	2E+3	7E+3	3E-6	9E-9			3E-5	3E-4
		W, see ^{200}Bi	-	6E+3	3E-6	9E-9			-	-
83	Bismuth-205	D, see ^{200}Bi	1E+3	3E+3	1E-6	3E-9			2E-5	2E-4
		W, see ^{200}Bi	-	1E+3	5E-7	2E-9			-	-
83	Bismuth-206	D, see ^{200}Bi	6E+2	1E+3	6E-7	2E-9			9E-6	9E-5
		W, see ^{200}Bi	-	9E+2	4E-7	1E-9			-	-
83	Bismuth-207	D, see ^{200}Bi	1E+3	2E+3	7E-7	2E-9			1E-5	1E-4
		W, see ^{200}Bi	-	4E+2	1E-7	5E-10			-	-
83	Bismuth-210m	D, see ^{200}Bi	4E+1	5E+0	2E-9	-			-	-
			Kidneys	Kidneys						
			(6E+1)	(6E+0)	-	9E-12			8E-7	
	8E-6									
		W, see ^{200}Bi	-	7E-1	3E-10	9E-13				
83	Bismuth-210	D, see ^{200}Bi	8E+2	2E+2	1E-7	-			1E-5	1E-4
				Kidneys						
			-	(4E+2)	-	5E-10			-	-
		W, see ^{200}Bi	-	3E+1	1E-8	4E-11			-	-
83	Bismuth-212[2]	D, see ^{200}Bi	5E+3	2E+2	1E-7	3E-10			7E-5	7E-4
		W, see ^{200}Bi	-	3E+2	1E-7	4E-10			-	-
83	Bismuth-213[2]	D, see ^{200}Bi	7E+3	3E+2	1E-7	4E-10			1E-4	1E-3
		W, see ^{200}Bi	-	4E+2	1E-7	5E-10			-	-
83	Bismuth-214[2]	D, see ^{200}Bi	2E+4	8E+2	3E-7	1E-9			-	-
			St wall							
			(2E+4)	-	-	-			3E-4	3E-3
		W, see ^{200}Bi	-	9E-2	4E-7	1E-9			-	-
84	Polonium-203[2]	D, all compounds except those given for W	3E+4	6E+4	3E-5	9E-8			3E-4	3E-3
		W, oxides, hydroxides, and nitrates	-	9E+4	4E-5	1E-7			-	-
84	Polonium-205[2]	D, see ^{203}Po	2E+4	4E+4	2E-5	5E-8			3E-4	3E-3
		W, see ^{203}Po	-	7E+4	3E-5	1E-7			-	-
84	Polonium-207	D, see ^{203}Po	8E+3	3E+4	1E-5	3E-8			1E-4	1E-3
		W, see ^{203}Po	-	3E+4	1E-5	4E-8			-	-
84	Polonium-210	D, see ^{203}Po	3E+0	6E-1	3E-10	9E-13			4E-8	4E-7

W, see ^{203}Po	-	6E-1	3E-10	9E-13	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
85	Astatine-207[2]	D, halides	6E+3	3E+3	1E-6	4E-9		8E-5	8E-4
		W	-	2E+3	9E-7	3E-9		-	-
85	Astatine-211	D, halides	1E+2	8E+1	3E-8	1E-10		2E-6	2E-5
		W	-	5E+1	2E-8	8E-11		-	-
86	Radon-220	With daughters removed	-	2E+4	7E-6	2E-8		-	-
		With daughters present	-	2E+1 (or 12 working level months)	9E-9	3E-11 (or 1.0 working level)		-	-
86	Radon-222	With daughters removed	-	1E+4	4E-6	1E-8		-	-
		With daughters present	-	1E+2 (or 4 working level months)	3E-8	1E-10 (or 0.33 working level)		-	-
87	Francium-222[2]	D, all compounds	2E+3	5E+2	2E-7	6E-10		3E-5	3E-4
87	Francium-223[2]	D, all compounds	6E+2	8E+2	3E-7	1E-9		8E-6	8E-5
88	Radium-223	W, all compounds	5E+0	7E-1	3E-10	9E-13		-	-
			Bone surf (9E+0)	-	-	-		1E-7	1E-6
88	Radium-224	W, all compounds	8E+0	2E+0	7E-10	2E-12		-	-
			Bone surf (2E+1)	-	-	-		2E-7	2E-6
88	Radium-225	W, all compounds	8E+0	7E-1	3E-10	9E-13		-	-
			Bone surf (2E+1)	-	-	-		2E-7	2E-6
88	Radium-226	W, all compounds	2E+0	6E-1	3E-10	9E-13		-	-
			Bone surf (5E+0)	-	-	-		6E-8	6E-7
88	Radium-227[2]	W, all compounds	2E+4	1E+4	6E-6	-		-	-
			Bone surf (2E+4)	Bone surf (2E+4)	-	3E-8		3E-4	3E-3
88	Radium-228	W, all compounds	2E+0	1E+0	5E-10	2E-12		-	-
			Bone surf (4E+0)	-	-	-		6E-8	6E-7
89	Actinium-224	D, all compounds except those given for W and Y	2E+3	3E+1	1E-8	-		-	-
			LLI wall (2E+3)	Bone surf (4E+1)	-	5E-11		3E-5	3E-4
		W, halides and nitrates	-	5E+1	2E-8	7E-11		-	-
		Y, oxides and hydroxides	-	5E+1	2E-8	6E-11		-	-
89	Actinium-225								
		D, see ^{224}Ac	5E+1	3E-1	1E-10	-		-	-
			LLI wall (5E+1)	Bone surf (5E-1)	-	7E-13		7E-7	7E-6
		W, see ^{224}Ac	-	6E-1	3E-10	9E-13		-	-
		Y, see ^{224}Ac	-	6E-1	3E-10	9E-13		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1		Col. 2	Col.3			Col. 1	Col. 2
	Monthly		Oral							
	Average		Ingestion		Inhalation					
Atomic		Radionuclide	Class	ALI		ALI	DAC		Air	
	Water		Concentration							
No.	(μCi/ml)		(μCi)		(μCi)	(μCi/ml)	(μCi/ml)		(μCi/ml)	
89	Actinium-226	D, see ^{224}Ac	1E+2	3E+0	1E-9	-			-	-
			LLI wall	Bone surf						
			(1E+2)	(4E+0)	-	5E-12			2E-6	2E-5
		W, see ^{224}Ac	-	5E+0	2E-9	7E-12			-	-
		Y, see ^{224}Ac	-	5E+0	2E-9	6E-12			-	-
89	Actinium-227	D, see ^{224}Ac	2E-1	4E-4	2E-13	-			-	-
			Bone surf	Bone surf						
			(4E-1)	(8E-4)	-	1E-15			5E-9	5E-8
		W, see ^{224}Ac	-	2E-3	7E-13	-			-	-
				Bone surf						
			-	(3E-3)	-	4E-15			-	-
		Y, see ^{224}Ac	-	4E-3	2E-12	6E-15			-	-
89	Actinium-228	D, see ^{224}Ac	2E+3	9E+0	4E-9	-			3E-5	3E-4
				Bone surf						
			-	(2E+1)	-	2E-11			-	-
		W see ^{224}Ac	-	4E+1	2E-8	-			-	-
				Bone surf						
			-	(6E+1)	-	8E-11			-	-
		Y see ^{224}Ac	-	4E+1	2E-8	6E-11			-	-
90	Thorium-226[2]	W, all compounds except								
		those given for Y	5E+3	2E+2	6E-8	2E-10			-	-
			St wall							
			(5E+3)	-	-	-			7E-5	7E-4
		Y, oxides and hydroxides	-	1E+2	6E-8	2E-10			-	-
90	Thorium-227	W, see ^{226}Th	1E+2	3E-1	1E-10	5E-13			2E-6	2E-5
		Y, see ^{226}Th	-	3E-1	1E-10	5E-13			-	-
90	Thorium-228	W, see ^{226}Th	6E+0	1E-2	4E-12	-			-	-
			Bone surf	Bone surf						
			(1E+1)	(2E-2)	-	3E-14			2E-7	2E-6
		Y, see ^{226}Th	-	2E-2	7E-12	2E-14			-	-
90	Thorium-229	W, see ^{226}Th	6E-1	9E-4	4E-13	-			-	-
			Bone surf	Bone surf						
			(1E+0)	(2E-3)	-	3E-15			2E-8	2E-7
		Y, see ^{226}Th	-	2E-3	1E-12	-			-	-
				Bone surf						
			-	(3E-3)	-	4E-15	-		-	
90	Thorium-230	W, see ^{226}Th	4E+0	6E-3	3E-12	-			-	-
			Bone surf	Bone surf						
			(9E+0)	(2E-2)	-	2E-14	1E-7		1E-6	
		Y, see ^{226}Th	-	2E-2	6E-12	-			-	-
				Bone surf						
			-	(2E-2)	-	3E-14	-		-	
90	Thorium-231	W, see ^{228}Th	4E+3	6E+3	3E-6	9E-9			5E-5	5E-4
		Y, see ^{228}Th	-	6E+3	3E-6	9E-9	-		-	

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Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
90	Thorium-232	W, see ^{228}Th	7E-1	1E-3	5E-13	-		-	-
			Bone surf (2E+0)	Bone surf (3E-3)	-	4E-15		3E-8	3E-7
		Y, see ^{228}Th	-	3E-3	1E-12	-		-	-
			-	Bone surf (4E-3)	-	6E-15		-	-
90	Thorium-234	W, see ^{228}Th	3E+2	2E+2	8E-8	3E-10		-	-
			LLI wall (4E+2)	-	-	-		5E-6	5E-5
		Y, see ^{228}Th	-	2E+2	6E-8	2E-10		-	-
91	Protactinium-227[2]	W, all compounds except those given for Y	4E+3	1E+2	5E-8	2E-10		5E-5	5E-4
		Y, oxides and hydroxides	-	1E+2	4E-8	1E-10		-	-
91	Protactinium-228	W, see ^{227}Pa	1E+3	1E+1	5E-9	-		2E-5	2E-4
			-	Bone surf (2E+1)	-	3E-11		-	-
		Y, see ^{227}Pa	-	1E+1	5E-9	2E-11		-	-
91	Protactinium-230	W, see ^{227}Pa	6E+2	5E+0	2E-9	7E-12		-	-
			Bone surf (9E+2)	-	-	-		1E-5	1E-4
		Y, see ^{227}Pa	-	4E+0	1E-9	5E-12		-	-
91	Protactinium-231	W, see ^{227}Pa	2E-1	2E-3	6E-13	-		-	-
			Bone surf (5E-1)	Bone surf (4E-3)	-	6E-15		6E-9	6E-8
		Y, see ^{227}Pa	-	4E-3	2E-12	-		-	-
			-	Bone surf (6E-3)	-	8E-15		-	-
91	Protactinium-232	W, see ^{227}Pa	1E+3	2E+1	9E-9	-		2E-5	2E-4
			-	Bone surf (6E+1)	-	8E-11		-	-
		Y, see ^{227}Pa	-	6E+1	2E-8	-		-	-
			-	Bone surf (7E+1)	-	1E-10		-	-
91	Protactinium-233	W, see ^{227}Pa	1E+3	7E+2	3E-7	1E-9		-	-
			LLI wall (2E+3)	-	-	-		2E-5	2E-4
		Y, see ^{227}Pa	-	6E+2	2E-7	8E-10		-	-
91	Protactinium-234	W, see ^{227}Pa	2E+3	8E+3	3E-6	1E-8		3E-5	3E-4
		Y, see ^{227}Pa	-	7E+3	3E-6	9E-9		-	-
92	Uranium-230	D, UF, UOF, UO(NO)	4E+0	4E-1	2E-10	-		-	-
			Bone surf (6E+0)	Bone surf (6E-1)	-	8E-13		8E-8	8E-7
		W, UO, UF, UCl	-	4E-1	1E-10	5E-13		-	-
		Y, UO, UO	-	3E-1	1E-10	4E-13		-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers			Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3			Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI		ALI (μCi/ml)	DAC (μCi/ml)		Air (μCi/ml)	
92	Uranium-231	D, see ^{230}U	5E+3	8E+3	3E-6	1E-8			-	-
			LLI wall (4E+3)	-	-	-			6E-5	6E-4
		W, see ^{230}U	-	6E+3	2E-6	8E-9			-	-
		Y, see ^{230}U	-	5E+3	2E-6	6E-9			-	-
92	Uranium-232	D, see ^{230}U	2E+0	2E-1	9E-11	-			-	-
			Bone surf (4E+0)	Bone surf (4E-1)	-	6E-13			6E-8	6E-7
		W, see ^{230}U	-	4E-1	2E-10	5E-13			-	-
		Y, see ^{230}U	-	8E-3	3E-12	1E-14			-	-
92	Uranium-233	D, see ^{230}U	1E+1	1E+0	5E-10	-			-	
			Bone surf (2E+1)	Bone surf (2E+0)	-	3E-12			3E-7	3E-6
		W, see ^{230}U	-	7E-1	3E-10	1E-12			-	-
		Y, see ^{230}U	-	4E-2	2E-11	5E-14			-	-
92	Uranium-234[3]	D, see ^{230}U	1E+1	1E+0	5E-10	-			-	-
			Bone surf (2E+1)	Bone surf (2E+0)	-	3E-12			3E-7	3E-6
		W, see ^{230}U	-	7E-1	3E-10	1E-12			-	-
		Y, see ^{230}U	-	4E-2	2E-11	5E-14			-	-
92	Uranium-235[3]	D, see ^{230}U	1E+1	1E+0	6E-10	-			-	-
			Bone surf (2E+1)	Bone surf (2E+0)	-	3E-12			3E-7	3E-6
		W, see ^{230}U	-	8E-1	3E-10	1E-12			-	-
		Y, see ^{230}U	-	4E-2	2E-11	6E-14			-	-
92	Uranium-236	D, see ^{230}U	1E+1	1E+0	5E-10	-			-	-
			Bone surf (2E+1)	Bone surf (2E+0)	-	3E-12			3E-7	3E-6
		W, see ^{230}U	-	8E-1	3E-10	1E-12			-	-
		Y, see ^{230}U	-	4E-2	2E-11	6E-14			-	-
92	Uranium-237	D, see ^{230}U	2E+3	3E+3	1E-6	4E-9			-	-
			LLI wall (2E+3)	-	-	-			3E-5	3E-4
		W, see ^{230}U	-	2E+3	7E-7	2E-9			-	-
		Y, see ^{230}U	-	2E+3	6E-7	2E-9			-	-
92	Uranium-238[3]	D, see ^{230}U	1E+1	1E+0	6E-10	-			-	-
			Bone surf (2E+1)	Bone surf (2E+0)	-	3E-12			3E-7	3E-6
		W, see ^{230}U	-	8E-1	3E-10	1E-12			-	-
		Y, see ^{230}U	-	4E-2	2E-11	6E-14			-	-
92	Uranium-239[2]	D, see ^{230}U	7E+4	2E+5	8E-5	3E-7			9E-4	9E-3
		W, see ^{230}U	-	2E+5	7E-5	2E-7			-	-
		Y, see ^{230}U	-	2E+5	6E-5	2E-7			-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
92	Uranium-240	D, see ^{230}U	1E+3	4E+3	2E-6	5E-9		2E-5	2E-4
		W, see ^{230}U	-	3E+3	1E-6	4E-9		-	-
		Y, see ^{230}U	-	2E+3	1E-6	3E-9		-	-
92	Uranium-natural[3]	D, see ^{230}U	1E+1	1E+0	5E-10	-		-	-
			Bone surf (2E+1)	Bone surf (2E+0)	-	3E-12		3E-7	3E-6
		W, see ^{230}U	-	8E-1	3E-10	9E-13		-	-
		Y, see ^{230}U	-	5E-2	2E-11	9E-24		-	-
93	Neptunium-232[2]	W, all compounds	1E+5	2E+3	7E-7	-		2E-3	2E-2
			-	(5E+2)	-	6E-9		-	-
93	Neptunium-234	W, all compounds	2E+3	3E+3	1E-6	4E-9		3E-5	3E-4
93	Neptunium-235	W, all compounds	2E+4	8E+2	3E-7	-		-	-
			LLI wall (2E+4)	Bone surf (1E+3)	-	2E-9		3E-4	3E-3
93	Neptunium-236 (1.15E+5 y)	W, all compounds	3E+0	2E-2	9E-12	-		-	-
			Bone surf (6E+0)	Bone surf (5E-2)	-	8E-14		9E-8	9E-7
93	Neptunium-236 (22.5 h)	W, all compounds	3E+3	3E+1	1E-8	-		-	-
			Bone surf (4E+3)	Bone surf (7E+1)	-	1E-10		5E-5	5E-4
93	Neptunium-237	W, all compounds	5E-1	4E-3	2E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	1E-14		2E-8	2E-7
93	Neptunium-238	W, all compounds	1E+3	6E+1	3E-8	-		2E-5	2E-4
			-	Bone surf (2E+2)	-	2E-10		-	-
93	Neptunium-239	W, all compounds	2E+3	2E+3	9E-7	3E-9		-	-
			LLI wall (2E+3)	-	-	-		2E-5	2E-4
93	Neptunium-240[2]	W, all compounds	2E+4	8E+4	3E-5	1E-7		3E-4	3E-3
94	Plutonium-234	W, all compounds except PuO	8E+3	2E+2	9E-8	3E-10		1E-4	1E-3
		Y, PuO	-	2E+2	8E-8	3E-10		-	-
94	Plutonium-235[2]	W, see ^{234}Pu	9E+5	3E+6	1E-3	4E-6		1E-2	1E-1
		Y, see ^{234}Pu	-	3E+6	1E-3	3E-6		-	-
94	Plutonium-236	W, see ^{234}Pu	2E+0	2E-2	8E-12	-		-	-
			Bone surf (4E+0)	Bone surf (4E-2)	-	5E-14		6E-8	6E-7
		Y, see ^{234}Pu	-	4E-2	2E-11	6E-14		-	-
94	Plutonium-237	W, see ^{234}Pu	1E+4	3E+3	1E-6	5E-9		2E-4	2E-3
		Y, see ^{234}Pu	-	3E+3	1E-6	4E-9		-	-
94	Plutonium-238	W, see ^{234}Pu	9E-1	7E-3	3E-12	-		-	-
			Bone surf	Bone surf					

	(2E+0)	(1E-2)	-	2E-14	2E-8	2E-7
Y, see ^{234}Pu	-	2E-2	8E-12	2E-14	-	-

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class	ALI Concentration (μCi)		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
94	Plutonium-239	W, see ^{234}Pu	8E-1	6E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
		Y, see ^{234}Pu	-	2E-2	7E-12	-		-	-
			-	(2E-2)	-	2E-14		-	-
			Bone surf	Bone surf					
		Y, see ^{234}Pu	-	2E-2	7E-12	-		-	-
			-	Bone surf (2E-2)	-	2E-14		-	-
94	Plutonium-241	W, see ^{234}Pu	4E+1	3E-1	1E-10	-		-	-
			Bone surf (7E+1)	Bone surf (6E-1)	-	8E-13		1E-6	1E-5
		Y, see ^{234}Pu	-	8E-1	3E-10	-		-	-
			-	Bone surf (1E+0)	-	1E-12		-	-
94	Plutonium-242	W, see ^{234}Pu	8E-1	7E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
		Y, see ^{234}Pu	-	2E-2	7E-12	-		-	-
			-	Bone surf (2E-2)	-	2E-14		-	-
94	Plutonium-243	W, see ^{234}Pu	2E+4	4E+4	2E-5	5E-8		2E-4	2E-3
		Y, see ^{234}Pu	-	4E+4	2E-5	5E-8		-	-
94	Plutonium-244	W, see ^{234}Pu	8E-1	7E-3	3E-12	-		-	-
			Bone surf (2E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
		Y, see ^{234}Pu	-	2E-2	7E-12	-		-	-
			-	Bone surf (2E-2)	-	2E-14		-	-
94	Plutonium-245	W, see ^{234}Pu	2E+3	5E+3	2E-6	6E-9		3E-5	3E-4
		Y, see ^{234}Pu	-	4E+3	2E-6	6E-9		-	-
94	Plutonium-246	W, see ^{234}Pu	4E+2	3E+2	1E-7	4E-10		-	-
			LLI wall (4E+2)	-	-	-		6E-6	6E-5
		Y, see ^{234}Pu	-	3E+2	1E-7	4E-10		-	-
95	Americium-237[2]	W, all compounds	8E+4	3E+5	1E-4	4E-7		1E-3	1E-2
95	Americium-238[2]	W, all compounds	4E+4	3E+3	1E-6	-		5E-4	5E-3
			-	Bone surf (6E+3)	-	9E-9		-	-
95	Americium-239	W, all compounds	5E+3	1E+4	5E-6	2E-8		7E-5	7E-4
95	Americium-240	W, all compounds	2E+3	3E+3	1E-6	4E-9		3E-5	3E-4
95	Americium-241	W, all compounds	8E-1	6E-3	3E-12	-		-	-

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Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14	2E-8	2E-7

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
95	Americium-242m	W, all compounds	8E-1	6E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
95	Americium-242	W, all compounds	4E+3	8E+1	4E-8	-		5E-5	5E-4
			-	Bone surf (9E+1)	-	1E-10		-	-
95	Americium-243	W, all compounds	8E-1	6E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
95	Americium-244m[2]	W, all compounds	6E+4	4E+3	2E-6	-		-	-
			St wall (8E+4)	Bone surf (7E+3)	-	1E-8		1E-3	1E-2
95	Americium-244	W, all compounds	3E+3	2E+2	8E-8	-		4E-5	4E-4
			-	Bone surf (3E+2)	-	4E-1	0	-	-
95	Americium-245	W, all compounds	3E+4	8E+4	3E-5	1E-7		4E-4	4E-3
95	Americium-246m[2]	W, all compounds	5E+4	2E+5	8E-5	3E-7		-	-
			St wall (6E+4)	-	-	-		8E-4	8E-3
95	Americium-246[2]	W, all compounds	3E+4	1E+5	4E-5	1E-7		4E-4	4E-3
96	Curium-238	W, all compounds	2E+4	1E+3	5E-7	2E-9		2E-4	2E-3
96	Curium-240	W, all compounds	6E+1	6E-1	2E-10	-		-	-
			Bone surf (8E+1)	Bone surf (6E-1)	-	9E-13		1E-6	1E-5
96	Curium-241	W, all compounds	1E+3	3E+1	1E-8	-		2E-5	2E-4
			-	Bone surf (4E+1)	-	5E-11		-	-
96	Curium-242	W, all compounds	3E+1	3E-1	1E-10	-		-	-
			Bone surf (5E+1)	Bone surf (3E-1)	-	4E-13		7E-7	7E-6
96	Curium-243	W, all compounds	1E+0	9E-3	4E-12	-		-	-
			Bone surf (2E+0)	Bone surf (2E-2)	-	2E-14		3E-8	3E-7
96	Curium-244	W, all compounds	1E+0	1E-2	5E-12	-		-	-
			Bone surf (3E+0)	Bone surf (2E-2)	-	3E-14		3E-8	3E-7
96	Curium-245	W, all compounds	7E-1	6E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
96	Curium-246	W, all compounds	7E-1	6E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
96	Curium-247	W, all compounds	8E-1	6E-3	3E-12	-		-	-
			Bone surf (1E+0)	Bone surf (1E-2)	-	2E-14		2E-8	2E-7
96	Curium-248	W, all compounds	2E-1	2E-3	7E-13	-		-	-

Bone surf (4E-1)	Bone surf (3E-3)	-	4E-15	5E-9	5E-8

Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI	(μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
96	Curium-249[2]	W, all compounds	5E+4	2E+4	7E-6	-		7E-4	7E-3
			-	Bone surf (3E+4)	-	4E-8		-	-
96	Curium-250	W, all compounds	4E-2	3E-4	1E-13	-		-	-
			Bone surf (6E-2)	Bone surf (5E-4)	-	8E-16		9E-10	9E-9
97	Berkelium-245	W, all compounds	2E+3	1E+3	5E-7	2E-9		3E-5	3E-4
97	Berkelium-246	W, all compounds	3E+3	3E+3	1E-6	4E-9		4E-5	4E-4
			Bone surf	Bone surf					
97	Berkelium-249	W, all compounds	2E+2	2E+0	7E-10	-		-	-
			Bone surf (5E+2)	Bone surf (4E+0)	-	5E-12		6E-6	6E-5
97	Berkelium-250	W, all compounds	9E+3	3E+2	1E-7	-		1E-4	1E-3
			-	Bone surf (7E+2)	-	1E-9		-	-
98	Californium-244[2]	W, all compounds except those given for Y	3E+4	6E+2	2E-7	8E-10		-	-
			St wall (3E+4)	-	-	-		4E-4	4E-3
		Y, oxides and hydroxides	-	6E+2	2E-7	8E-10		-	-
98	Californium-246	W, see ^{244}Cf	4E+2	9E+0	4E-9	1E-11		5E-6	5E-5
		Y, see ^{244}Cf	-	9E+0	4E-9	1E-11		-	-
98	Californium-248	W, see ^{244}Cf	8E+0	6E-2	3E-11	-		-	-
			Bone surf (2E+1)	Bone surf (1E-1)	-	2E-13		2E-7	2E-6
		Y, see ^{244}Cf	-	1E-1	4E-11	1E-13		-	-
98	Californium-249	W, see ^{244}Cf	5E-1	4E-3	2E-12	-		-	-
			Bone surf (1E+0)	Bone surf (9E-3)	-	1E-14		2E-8	2E-7
		Y, see ^{244}Cf	-	1E-2	4E-12	-		-	-
				Bone surf					
98	Californium-250	W, see ^{244}Cf	1E+0	9E-3	4E-12	-		-	-
			(2E+0)	(2E-2)	-	3E-14		3E-8	3E-7
98	Californium-251	W, see ^{244}Cf	5E-1	4E-3	2E-12	-		-	-
			Bone surf (1E+0)	Bone surf (9E-3)	-	1E-14		2E-8	2E-7
		Y, see ^{244}Cf	-	1E-2	4E-12			-	-
			-	Bone surf (1E-2)	-	2E-14		-	-
98	Californium-252	W, see ^{244}Cf	2E+0	2E-2	8E-12	-		-	-

	Bone surf (5E+0)	Bone surf (4E-2)	-	5E-14	7E-8	7E-7
Y, see ^{244}Cf	-	3E-2	1E-11	5E-14	-	-

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Occupational Values			Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
			Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Monthly Average Water (μCi/ml)	Radionuclide	Class Concentration (μCi)	ALI		ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	
98	Californium-253	W, see ^{244}Cf	2E+2	2E+0	8E-10	3E-12		-	-
			Bone surf (4E+2)	-	-	-		5E-6	5E-5
		Y, see ^{244}Cf	-	2E+0	7E-10	2E-12		-	-
98	Californium-254	W, see ^{244}Cf	2E+0	2E-2	9E-12	3E-14		3E-8	3E-7
		Y, see ^{244}Cf	-	2E-2	7E-12	2E-14		-	-
99	Einsteinium-250	W, all compounds	4E+4	5E+2	2E-7	-		6E-4	6E-3
				Bone surf					
99	Einsteinium-251	W, all compounds	7E+3	9E+2	4E-7	-		1E-4	1E-3
			-	(1E+3)	-	2E-9		-	-
99	Einsteinium-253	W, all compounds	2E+2	1E+0	6E-10	2E-12		2E-6	2E-5
99	Einsteinium-254m	W, all compounds	3E+2	1E+1	4E-9	1E-11		-	-
			LLI wall (3E+2)	-	-	-		4E-6	4E-5
99	Einsteinium-254	W, all compounds	8E+0	7E-2	3E-11	-		-	-
			Bone surf (2E+1)	Bone surf (1E-1)	-	2E-13		2E-7	2E-6
100	Fermium-252	W, all compounds	5E+2	1E+1	5E-9	2E-11		6E-6	6E-5
100	Fermium-253	W, all compounds	1E+3	1E+1	4E-9	1E-11		1E-5	1E-4
100	Fermium-254	W, all compounds	3E+3	9E+1	4E-8	1E-10		4E-5	4E-4
100	Fermium-255	W, all compounds	5E+2	2E+1	9E-9	3E-11		7E-6	7E-5
100	Fermium-257	W, all compounds	2E+1	2E-1	7E-11	-		-	-
			Bone surf (4E+1)	Bone surf (2E-1)	-	3E-13		5E-7	5E-6
101	Mendelevium-257	W, all compounds	7E+3	8E+1	4E-8	-		1E-4	1E-3
			-	Bone surf (9E+1)	-	1E-10		-	-
101	Mendelevium-258	W, all compounds	3E+1	2E-1	1E-10	-		-	-
			Bone surf (5E+1)	Bone surf (3E-1)	-	5E-13		6E-7	6E-6
-	Any single radionuclide not listed above with decay mode other than alpha emission or spontaneous fission and with radioactive half-life less than 2 hours		Submersion[1]	-	2E+2	1E-7	1E-9	-	-
-	Any single radionuclide not listed above with decay mode other than alpha emission or spontaneous fission and								

with radioactive half-life greater than 2 hours .	. . .	-	2E-1	1E-10	1E-12	1E-8	1E-7

Occupational Values		Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
		Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Radionuclide	Class	ALI (μCi)	ALI (μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	Monthly Average Water (μCi/ml)
Any single radionuclide not listed above that decays by alpha emission or spontaneous fission, or any mixture for which either the identity or the concentration of any radionuclide in the mixture is not known	.	. . .	-	4E-4	2E-13	1E-15	2E-9	2E-8

FOOTNOTES:

[1] "Submersion" means that values given are for submersion in a hemispherical semi-infinite cloud of airborne material.

[2] These radionuclides have radiological half-lives of less than 2 hours. The total effective dose equivalent received during operations with these radionuclides might include a significant contribution from external exposure. The DAC values for all radionuclides, other than those designated Class "Submersion," are based upon the committed effective dose equivalent due to the intake of the radionuclide into the body and do NOT include potentially significant contributions to dose equivalent from external exposures. The licensee may substitute 1E-7 μCi/ml for the listed DAC to account for the submersion dose prospectively but shall use individual monitoring devices or other radiation-measuring instruments that measure external exposure to demonstrate compliance with the limits. (See R12-1-410)

[3] For soluble mixtures of U-238, U-234, and U-235 in air, chemical toxicity may be the limiting factor (see R12-1-408(E)). If the percent by weight (enrichment) of U-235 is not greater than 5, the concentration value for a 40-hour work week is 0.2 milligrams uranium per cubic meter of air average. For any enrichment, the product of the average concentration and time of exposure during a 40-hour work week shall not exceed 8E-3 (SA) μCi-hr/ml, where SA is the specific activity of the uranium inhaled. The specific activity for natural uranium is 6.77E-7 curies per gram U. The specific activity for other mixtures of U-238, U-235, and U-234, if not known, shall be:

SA = 3.6E-7 curies/gram U U-depleted

SA = $[0.4 + 0.38 \text{ (enrichment)} + 0.0034 \text{ (enrichment)}^2]$ E-6, enrichment > 0.72

where enrichment is the percentage by weight of U-235, expressed as percent.

NOTE:

1. If the identity of each radionuclide in a mixture is known but the concentration of one or more of the radionuclides in the mixture is not known, the DAC for the mixture shall be the most restrictive DAC of any radionuclide in the mixture.
2. If the identity of each radionuclide in the mixture is not known, but it is known that certain radionuclides specified in this Appendix are not present in the mixture, the inhalation ALI, DAC, and effluent and sewage concentrations for the mixture are the lowest values specified in this Appendix for any radionuclide that is not known to be absent from the mixture; or

Occupational Values		Table I Effluent Concentrations			Table II Releases to Sewers		Table III	
		Col. 1 Oral Ingestion		Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Radionuclide	Class	ALI (μCi)	ALI (μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	Monthly Average Water (μCi/ml)

If it is known that Ac-227-D and Cm-250-W are not present	-	7E-4	3E-13	-	-
-					
If, in addition, it is known that Ac-227-W,Y, Th-229-W,Y, Th-230-W, Th-232-W,Y, Pa-231-W,Y, Np-237-W, Pu-239-W, Pu-240-W, Pu-242-W, Am-241-W, Am-242m-W, Am-243-W, Cm-245-W, Cm-246-W, Cm-247-W, Cm-248-W, Bk-247-W, Cf-249-W, and Cf-251-W are not present	-	7E-3	3E-12	-	
- -					

Occupational Values		Table I Effluent Concentrations		Table II Releases to Sewers			Table III
		Col. 1 Oral Ingestion	Col. 2 Inhalation	Col.3		Col. 1	Col. 2
Atomic No.	Radionuclide	Class Concentration (μCi)	ALI (μCi)	ALI (μCi/ml)	DAC (μCi/ml)	Air (μCi/ml)	Monthly Average Water (μCi/ml)
If, in addition, it is known that Sm-146-W, Sm-147-W, Gd-148-D,W, Gd-152-D,W, Th-228-W,Y, Th-230-Y, U-232-Y, U-233-Y, U-234-Y, U-235-Y, U-236-Y, U-238-Y, Np-236-W, Pu-236-W,Y, Pu-238-W,Y, Pu-239-Y, Pu-240-Y, Pu-242-Y, Pu-244-W,Y, Cm-243-W, Cm-244-W, Cf-248-W, Cf-249-Y, Cf-250-W,Y, Cf-251-Y, Cf-252-WY, and Cf-254-W,Y are not present		-	-	7E-2	3E-11	-	-
If, in addition, it is known that Pb-210-D, Bi-210m-W, Po-210-D,W, Ra-223-W, Ra-225-W, Ra-226-W, Ac-225-D,W,Y, Th-227-W,Y, U-230-D,W,Y, U-232-D,W, Pu-241-W, Cm-240-W, Cm-242-W, Cf-248-Y, Es-254-W, Fm-257-W, and Md-258-W are not present		-	7E-1	3E-10	-	-	-
If, in addition, it is known that Si-32-Y, Ti-44-Y, Fe-60-D, Sr-90-Y, Zr-93-D, Cd-113m-D, Cd-113-D, In-115-D,W, La-138-D, Lu-176-W, Hf-178m-D,W, Hf-182-D,W, Bi-210m-D, Ra-224-W, Ra-228-W, Ac-226-D,W,Y, Pa-230-W,Y, U-233-D,W, U-234-D,W, U-235-D,W, U-236-D,W, U-238-D,W, Pu-241-Y, Bk-249-W, Cf-253-W,Y, and Es-253-W are not present				-	7E+0	3E-9	-
If it is known that Ac-227-D,W,Y, Th-229-W,Y, Th-232-W,Y, Pa-231-W,Y, Cm-248-W, and Cm-250-W are not present			-	-	-	1E-14	
If, in addition, it is known that Sm-146-W, Gd-148-D,W, Gd-152-D, Th-228-W,Y, Th-230-W,Y, U-232-Y, U-233-Y, U-234-Y, U-235-Y, U-236-Y, U-238-Y, U-Nat-Y, Np-236-W, Np-237-W, Pu-236-W,Y, Pu-238-W,Y, Pu-239-W,Y, Pu-240-W,Y, Pu-242-W,Y, Pu-244-W,Y, Am-241-W, Am-242m-W, Am-243-W, Cm-243-W, Cm-244-W, Cm-245-W, Cm-246-W, Cm-247-W, Bk-247-W, Cf-249-W,Y, Cf-250-W,Y, Cf-251-W,Y, Cf-252-W,Y, and Cf-254-W,Y are not present			-	-	-	1E-13	
If, in addition, it is known that Sm-147-W, Gd-152-W, Pb-210-D, Bi-210m-W, Po-210-D,W, Ra-223-W, Ra-225-W, Ra-226-W, Ac-225-D,W,Y, Th-227-W,Y, U-230-D,W,Y, U-232-D,W, U-Nat-W, Pu-241-W, Cm-240-W, Cm-242-W, Cf-248-W,Y, Es-254-W, Fm-257-W,							

and Md-258-W are not present	-	-	-	-	1E-12 -
If, in addition it is known that Fe-60, Sr-90, Cd-113m, Cd-113, In-115, I-129, Cs-134, Sm-145, Sm-147, Gd-148, Gd-152, Hg-194 (organic), Bi-210m, Ra-223, Ra-224, Ra-225, Ac-225, Th-228, Th-230, U-233, U-234, U-235, U-236, U-238, U-Nat, Cm-242, Cf-248, Es-254, Fm-257, and Md-258 are not present	-	-	-	-	1E-6 1E-5

3. If a mixture of radionuclides consists of Uranium and its daughters in ore dust (10 μm AMAD particle distribution assumed) prior to chemical separation of the Uranium from the ore, the following values may be used for the DAC of the mixture: 6E-11 μCi of gross alpha activity from Uranium-238, Uranium-234, Thorium-230, and Radium-226 per milliliter of air; 3E-11 μCi of natural uranium per milliliter of air; or 45 micrograms of natural uranium per cubic meter of air.
4. If the identity and concentration of each radionuclide in a mixture are known, the limiting values should be derived as follows: determine, for each radionuclide in the mixture, the ratio between the concentration present in the mixture and the concentration otherwise established in Appendix B to Article 4 for the specific radionuclide when not in a mixture. The sum of such ratios for all of the radionuclides in the mixture may not exceed "1" (i.e., "unity").
   Example: If radionuclides "A," "B," and "C" are present in concentrations C_A, C_B, and C_C, and if the applicable DACs are DAC_A, DAC_B, and DAC_C, respectively then the concentrations shall be limited so that the following relationship exists:

$$\frac{C_A}{DAC_A} + \frac{C_B}{DAC_B} + \frac{C_C}{DAC_C} \leq 1$$

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Section repealed; new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

APPENDIX C. QUANTITIES[1] OF LICENSED OR REGISTERED MATERIAL REQUIRING LABELING

Radionuclide	**Quantity (μCi)**	
Hydrogen-3	1,000	
Beryllium-7	1,000	
Beryllium-10	1	
Carbon-11	1,000	
Carbon-14	1,000	
Fluorine-18	1,000	
Sodium-22	10	
Sodium-24	100	
Magnesium-28	100	
Aluminum-26	10	
Silicon-31	1,000	
Silicon-32	1	
Phosphorus-32	10	
Phosphorus-33	100	
Sulfur-35	100	
Chlorine-36	10	
Chlorine-38	1,000	
Chlorine-39	1,000	
Argon-39	1,000	
Argon-41	1,000	
Potassium-40	100	
Potassium-42	1,000	
Potassium-43	1,000	
Potassium-44	1,000	
Potassium-45	1,000	
Calcium-41	100	
Calcium-45	100	
Calcium-47	100	
Scandium-43	1,000	
Scandium-44m	100	
Scandium-44	100	
Scandium-46	10	
Scandium-47	100	
Scandium-48	100	
Scandium-49	1,000	
Titanium-44	1	
Titanium-45	1,000	
Vanadium-47	1,000	
Vanadium-48	100	
Vanadium-49	1,000	
Chromium-48	1,000	
Chromium-49	1,000	
Chromium-51	1,000	
Manganese-51	1,000	
Manganese-52m	1,000	
Manganese-52	100	
Manganese-53	1,000	
Manganese-54	100	
Manganese-56	1,000	
Iron-52		100
Iron-55		100
Iron-59		10
Iron-60		1
Cobalt-55	100	
Cobalt-56	10	
Cobalt-57	100	
Cobalt-58m	1,000	
Cobalt-58	100	
Cobalt-60m	1,000	

Cobalt-60	1
Cobalt-61	1,000
Cobalt-62m	1,000
Radionuclide	**Quantity (μCi)**
Nickel-56	100
Nickel-57	100
Nickel-59	100
Nickel-63	100
Nickel-65	1,000
Nickel-66	10
Copper-60	1,000
Copper-61	1,000
Copper-64	1,000
Copper-67	1,000
Zinc-62	100
Zinc-63	1,000
Zinc-65	10
Zinc-69m	100
Zinc-69	1,000
Zinc-71m	1,000
Zinc-72	100
Gallium-65	1,000
Gallium-66	100
Gallium-67	1,000
Gallium-68	1,000
Gallium-70	1,000
Gallium-72	100
Gallium-73	1,000
Germanium-66	1,000
Germanium-67	1,000
Germanium-68	10
Germanium-69	1,000
Germanium-71	1,000
Germanium-75	1,000
Germanium-77	1,000
Germanium-78	1,000
Arsenic-69	1,000
Arsenic-70	1,000
Arsenic-71	100
Arsenic-72	100
Arsenic-73	100
Arsenic-74	100
Arsenic-76	100
Arsenic-77	100
Arsenic-78	1,000
Selenium-70	1,000
Selenium-73m	1,000
Selenium-73	100
Selenium-75	100
Selenium-79	100
Selenium-81m	1,000
Selenium-81	1,000
Selenium-83	1,000
Bromine-74m	1,000
Bromine-74	1,000
Bromine-75	1,000
Bromine-76	100
Bromine-77	1,000
Bromine-80m	1,000
Bromine-80	1,000
Bromine-82	100

Bromine-83	1,000
Bromine-84	1,000
Krypton-74	1,000
Krypton-76	1,000
Krypton-77	1,000

*To convert μCi to kBq, multiply the μCi value by 37.

Radionuclide	**Quantity (μCi)**
Krypton-79	1,000
Krypton-81	1,000
Krypton-83m	1,000
Krypton-85m	1,000
Krypton-85	1,000
Krypton-87	1,000
Krypton-88	1,000
Rubidium-79	1,000
Rubidium-81m	1,000
Rubidium-81	1,000
Rubidium-82m	1,000
Rubidium-83	100
Rubidium-84	100
Rubidium-86	100
Rubidium-87	100
Rubidium-88	1,000
Rubidium-89	1,000
Strontium-80	100
Strontium-81	1,000
Strontium-83	100
Strontium-85m	1,000
Strontium-85	100
Strontium-87m	1,000
Strontium-89	10
Strontium-90	0.1
Strontium-91	100
Strontium-92	100
Yttrium-86m	1,000
Yttrium-86	100
Yttrium-87	100
Yttrium-88	10
Yttrium-90m	1,000
Yttrium-90	10
Yttrium-91m	1,000
Yttrium-91	10
Yttrium-92	100
Yttrium-93	100
Yttrium-94	1,000
Yttrium-95	1,000
Zirconium-86	100
Zirconium-88	10
Zirconium-89	100
Zirconium-93	1
Zirconium-95	10
Zirconium-97	100
Niobium-88	1,000
Niobium-89m (66 min)	1,000
Niobium-89 (122 min)	1,000
Niobium-90	100
Niobium-93m	10
Niobium-94	1
Niobium-95m	100

Niobium-95	100
Niobium-96	100
Niobium-97	1,000
Niobium-98	1,000
Molybdenum-90	100
Molybdenum-93m	100
Molybdenum-93	10
Molybdenum-99	100
Molybdenum-101	1,000

Radionuclide	**Quantity (μCi)**
Technetium-93m	1,000
Technetium-93	1,000
Technetium-94m	1,000
Technetium-94	1,000
Technetium-96m	1,000
Technetium-96	100
Technetium-97m	100
Technetium-97	1,000
Technetium-98	10
Technetium-99m	1,000
Technetium-99	100
Technetium-101	1,000
Technetium-104	1,000
Ruthenium-94	1,000
Ruthenium-97	1,000
Ruthenium-103	100
Ruthenium-105	1,000
Ruthenium-106	1
Rhodium-99m	1,000
Rhodium-99	100
Rhodium-100	100
Rhodium-101m	1,000
Rhodium-101	10
Rhodium-102m	10
Rhodium-102	10
Rhodium-103m	1,000
Rhodium-105	100
Rhodium-106m	1,000
Rhodium-107	1,000
Palladium-100	100
Palladium-101	1,000
Palladium-103	100
Palladium-107	10
Palladium-109	100
Silver-102	1,000
Silver-103	1,000
Silver-104m	1,000
Silver-104	1,000
Silver-105	100
Silver-106m	100
Silver-106	1,000
Silver-108m	1
Silver-110m	10
Silver-111	100
Silver-112	100
Silver-115	1,000
Cadmium-104	1,000
Cadmium-107	1,000
Cadmium-109	1
Cadmium-113m	0.1
Cadmium-113	100

Cadmium-115m	10
Cadmium-115	100
Cadmium-117m	1,000
Cadmium-117	1,000
Indium-109	1,000
Indium-110m (69.1m)	1,000
Indium-110 (4.9h)	1,000
Indium-111	100
Indium-112	1,000
Indium-113m	1,000

*To convert μCi to kBq, multiply the μCi value by 37.

Radionuclide	**Quantity (μCi)**
Indium-114m	10
Indium-115m	1,000
Indium-115	100
Indium-116m	1,000
Indium-117m	1,000
Indium-117	1,000
Indium-119m	1,000
Tin-110	100
Tin-111	1,000
Tin-113	100
Tin-117m	100
Tin-119m	100
Tin-121m	100
Tin-121	1,000
Tin-123m	1,000
Tin-123	10
Tin-125	10
Tin-126	10
Tin-127	1,000
Tin-128	1,000
Antimony-115	1,000
Antimony-116m	1,000
Antimony-116	1,000
Antimony-117	1,000
Antimony-118m	1,000
Antimony-119	1,000
Antimony-120 (16m)	1,000
Antimony-120 (5.76d)	100
Antimony-122	100
Antimony-124m	1,000
Antimony-124	10
Antimony-125	100
Antimony-126m	1,000
Antimony-126	100
Antimony-127	100
Antimony-128 (10.4m)	1,000
Antimony-128 (9.01h)	100
Antimony-129	100
Antimony-130	1,000
Antimony-131	1,000
Tellurium-116	1,000
Tellurium-121m	10
Tellurium-121	100

Tellurium-123m	10
Tellurium-123	100
Tellurium-125m	10
Tellurium-127m	10
Tellurium-127	1,000
Tellurium-129m	10
Tellurium-129	1,000
Tellurium-131m	10
Tellurium-131	100
Tellurium-132	10
Tellurium-133m	100
Tellurium-133	1,000
Tellurium-134	1,000
Iodine-120m	1,000
Iodine-120	100
Iodine-121	1,000

Radionuclide	**Quantity (μCi)**
Iodine-123	100
Iodine-124	10
Iodine-125	1
Iodine-126	1
Iodine-128	1,000
Iodine-129	1
Iodine-130	10
Iodine-131	1
Iodine-132m	100
Iodine-132	100
Iodine-133	10
Iodine-134	1,000
Iodine-135	100
Xenon-120	1,000
Xenon-121	1,000
Xenon-122	1,000
Xenon-123	1,000
Xenon-125	1,000
Xenon-127	1,000
Xenon-129m	1,000
Xenon-131m	1,000
Xenon-133m	1,000
Xenon-133	1,000
Xenon-135m	1,000
Xenon-135	1,000
Xenon-138	1,000
Cesium-125	1,000
Cesium-127	1,000
Cesium-129	1,000
Cesium-130	1,000
Cesium-131	1,000
Cesium-132	100
Cesium-134m	1,000
Cesium-134	10
Cesium-135m	1,000
Cesium-135	100
Cesium-136	10
Cesium-137	10
Cesium-138	1,000
Barium-126	1,000
Barium-128	100
Barium-131m	1,000
Barium-131	100
Barium-133m	100

Barium-133	100
Barium-135m	100
Barium-139	1,000
Barium-140	100
Barium-141	1,000
Barium-142	1,000
Lanthanum-131	1,000
Lanthanum-132	100
Lanthanum-135	1,000
Lanthanum-137	10
Lanthanum-138	100
Lanthanum-140	100
Lanthanum-141	100
Lanthanum-142	1,000
Lanthanum-143	1,000
Cerium-134	100
Cerium-135	100
Cerium-137m	100
Cerium-137	1,000

*To convert μCi to kBq, multiply the μCi value by 37.

Radionuclide	**Quantity (μCi)**
Cerium-139	100
Cerium-141	100
Cerium-143	100
Cerium-144	1
Praseodymium-136	1,000
Praseodymium-137	1,000
Praseodymium-138m	1,000
Praseodymium-139	1,000
Praseodymium-142m	1,000
Praseodymium-142	100
Praseodymium-143	100
Praseodymium-144	1,000
Praseodymium-145	100
Praseodymium-147	1,000
Neodymium-136	1,000
Neodymium-138	100
Neodymium-139m	1,000
Neodymium-139	1,000
Neodymium-141	1,000
Neodymium-147	100
Neodymium-149	1,000
Neodymium-151	1,000
Promethium-141	1,000
Promethium-143	100
Promethium-144	10
Promethium-145	10
Promethium-146	1
Promethium-147	10
Promethium-148m	10
Promethium-148	10
Promethium-149	100
Promethium-150	1,000
Promethium-151	100
Samarium-141m	1,000
Samarium-141	1,000
Samarium-142	1,000
Samarium-145	100
Samarium-146	1
Samarium-147	100
Samarium-151	10

Samarium-153	100
Samarium-155	1,000
Samarium-156	1,000
Europium-145	100
Europium-146	100
Europium-147	100
Europium-148	10
Europium-149	100
Europium-150 (12.62h)	100
Europium-150 (34.2y)	1
Europium-152m	100
Europium-152	1
Europium-154	1
Europium-155	10
Europium-156	100
Europium-157	100
Europium-158	1,000
Gadolinium-145	1,000
Gadolinium-146	10
Gadolinium-147	100
Gadolinium-148	0.001

Radionuclide	**Quantity (μCi)**
Gadolinium-149	100
Gadolinium-151	10
Gadolinium-152	100
Gadolinium-153	10
Gadolinium-159	100
Terbium-147	1,000
Terbium-149	100
Terbium-150	1,000
Terbium-151	100
Terbium-153	1,000
Terbium-154	100
Terbium-155	1,000
Terbium-156m (5.0h)	1,000
Terbium-156m (24.4h)	1,000
Terbium-156	100
Terbium-157	10
Terbium-158	1
Terbium-160	10
Terbium-161	100
Dysprosium-155	1,000
Dysprosium-157	1,000
Dysprosium-159	100
Dysprosium-165	1,000
Dysprosium-166	100
Holmium-155	1,000
Holmium-157	1,000
Holmium-159	1,000
Holmium-161	1,000
Holmium-162m	1,000
Holmium-162	1,000
Holmium-164m	1,000
Holmium-164	1,000
Holmium-166m	1
Holmium-166	100
Holmium-167	1,000

Erbium-161	1,000
Erbium-165	1,000
Erbium-169	100
Erbium-171	100
Erbium-172	100
Thulium-162	1,000
Thulium-166	100
Thulium-167	100
Thulium-170	10
Thulium-171	10
Thulium-172	100
Thulium-173	100
Thulium-175	1,000
Ytterbium-162	1,000
Ytterbium-166	100
Ytterbium-167	1,000
Ytterbium-169	100
Ytterbium-175	100
Ytterbium-177	1,000
Ytterbium-178	1,000
Lutetium-169	100
Lutetium-170	100
Lutetium-171	100
Lutetium-172	100
Lutetium-173	10
Lutetium-174m	10

*To convert μCi to kBq, multiply the μCi value by 37.

Radionuclide	**Quantity (μCi)**
Lutetium-174	10
Lutetium-176m	1,000
Lutetium-176	100
Lutetium-177m	10
Lutetium-177	100
Lutetium-178m	1,000
Lutetium-178	1,000
Lutetium-179	1,000
Hafnium-170	100
Hafnium-172	1
Hafnium-173	1,000
Hafnium-175	100
Hafnium-177m	1,000
Hafnium-178m	0.1
Hafnium-179m	10
Hafnium-180m	1,000
Hafnium-181	10
Hafnium-182m	1,000
Hafnium-182	0.1
Hafnium-183	1,000
Hafnium-184	100
Tantalum-172	1,000
Tantalum-173	1,000
Tantalum-174	1,000
Tantalum-175	1,000
Tantalum-176	100
Tantalum-177	1,000
Tantalum-178	1,000
Tantalum-179	100
Tantalum-180m	1,000
Tantalum-180	100
Tantalum-182m	1,000
Tantalum-182	10

Tantalum-183	100	
Tantalum-184	100	
Tantalum-185	1,000	
Tantalum-186	1,000	
Tungsten-176	1,000	
Tungsten-177	1,000	
Tungsten-178	1,000	
Tungsten-179	1,000	
Tungsten-181	1,000	
Tungsten-185	100	
Tungsten-187	100	
Tungsten-188	10	
Rhenium-177	1,000	
Rhenium-178	1,000	
Rhenium-181	1,000	
Rhenium-182 (12.7h)	1,000	
Rhenium-182 (64.0h)		100
Rhenium-184m	10	
Rhenium-184	100	
Rhenium-186m	10	
Rhenium-186	100	
Rhenium-187	1,000	
Rhenium-188m	1,000	
Rhenium-188	100	
Rhenium-189	100	
Osmium-180	1,000	
Osmium-181	1,000	
Osmium-182	100	
Radionuclide		**Quantity**
	(μCi)	
Osmium-185	100	
Osmium-189m	1,000	
Osmium-191m	1,000	
Osmium-191	100	
Osmium-193	100	
Osmium-194	1	
Iridium-182	1,000	
Iridium-184	1,000	
Iridium-185	1,000	
Iridium-186	100	
Iridium-187	1,000	
Iridium-188	100	
Iridium-189	100	
Iridium-190m	1,000	
Iridium-190	100	
Iridium-192m (1.4m)	10	
Iridium-192 (73.8d)	1	
Iridium-194m	10	
Iridium-194	100	
Iridium-195m	1,000	
Iridium-195	1,000	
Platinum-186	1,000	
Platinum-188	100	
Platinum-189	1,000	
Platinum-191	100	
Platinum-193m	100	
Platinum-193	1,000	
Platinum-195m	100	

Platinum-197m	1,000
Platinum-197	100
Platinum-199	1,000
Platinum-200	100
Gold-193	1,000
Gold-194	100
Gold-195	10
Gold-198m	100
Gold-198	100
Gold-199	100
Gold-200m	100
Gold-200	1,000
Gold-201	1,000
Mercury-193m	100
Mercury-193	1,000
Mercury-194	1
Mercury-195m	100
Mercury-195	1,000
Mercury-197m	100
Mercury-197	1,000
Mercury-199m	1,000
Mercury-203	100
Thallium-194m	1,000
Thallium-194	1,000
Thallium-195	1,000
Thallium-197	1,000
Thallium-198m	1,000
Thallium-198	1,000
Thallium-199	1,000
Thallium-201	1,000
Thallium-200	1,000
Thallium-202	100
Thallium-204	100

*To convert μCi to kBq, multiply the μCi value by 37.

Radionuclide	**Quantity (μCi)**
Lead-195m	1,000
Lead-198	1,000
Lead-199	1,000
Lead-200	100
Lead-201	1,000
Lead-202m	1,000
Lead-202	10
Lead-203	1,000
Lead-205	100
Lead-209	1,000
Lead-210	0.01
Lead-211	100
Lead-212	1
Lead-214	100
Bismuth-200	1,000
Bismuth-201	1,000
Bismuth-202	1,000
Bismuth-203	100
Bismuth-205	100
Bismuth-206	100
Bismuth-207	10
Bismuth-210m	0.1
Bismuth-210	1
Bismuth-212	10
Bismuth-213	10
Bismuth-214	100

Polonium-203	1,000
Polonium-205	1,000
Polonium-207	1,000
Polonium-210	0.1
Astatine-207	100
Astatine-211	10
Radon-220	1
Radon-222	1
Francium-222	100
Francium-223	100
Radium-223	0.1
Radium-224	0.1
Radium-225	0.1
Radium-226	0.1
Radium-227	1,000
Radium-228	0.1
Actinium-224	1
Actinium-225	0.01
Actinium-226	0.1
Actinium-227	0.001
Actinium-228	1
Thorium-226	10
Thorium-227	0.01
Thorium-228	0.001
Thorium-229	0.001
Thorium-230	0.001
Thorium-231	100
Thorium-232	100
Thorium-234	10
Thorium-natural	100
Protactinium-227	10
Protactinium-228	1
Protactinium-230	0.1
Protactinium-231	0.001
Protactinium-232	1
Protactinium-233	100
Protactinium-234	100

Radionuclide	**Quantity (μCi)**
Uranium-230	0.01
Uranium-231	100
Uranium-232	0.001
Uranium-233	0.001
Uranium-234	0.001
Uranium-235	0.001
Uranium-236	0.001
Uranium-237	100
Uranium-238	100
Uranium-239	1,000
Uranium-240	100
Uranium-natural	100
Neptunium-232	100
Neptunium-233	1,000
Neptunium-234	100
Neptunium-235	100
Neptunium-236 (1.15E + 5)	0.001
Neptunium-236 (22.5h)	1
Neptunium-237	0.001
Neptunium-238	10
Neptunium-239	100

Neptunium-240	1,000
Plutonium-234	10
Plutonium-235	1,000
Plutonium-236	0.001
Plutonium-237	100
Plutonium-238	0.001
Plutonium-239	0.001
Plutonium-240	0.001
Plutonium-241	0.01
Plutonium-242	0.001
Plutonium-243	1,000
Plutonium-244	0.001
Plutonium-245	100
Americium-237	1,000
Americium-238	100
Americium-239	1,000
Americium-240	100
Americium-241	0.001
Americium-242m	0.001
Americium-242	10
Americium-243	0.001
Americium-244m	100
Americium-244	10
Americium-245	1,000
Americium-246m	1,000
Americium-246	1,000
Curium-238	100
Curium-240	0.1
Curium-241	1
Curium-242	0.01
Curium-243	0.001
Curium-244	0.001
Curium-245	0.001
Curium-246	0.001
Curium-247	0.001
Curium-248	0.001
Curium-249	1,000
Berkelium-245	100
Berkelium-246	100
Berkelium-247	0.001

*To convert μCi to kBq, multiply the μCi value by 37.

Radionuclide	**Quantity (μCi)**
Berkelium-249	0.1
Berkelium-250	10
Californium-244	100
Californium-246	1
Californium-248	0.01
Californium-249	0.001
Californium-250	0.001
Californium-251	0.001
Californium-252	0.001
Californium-253	0.1
Californium-254	0.001
Einsteinium-250	100
Einsteinium-251	100
Einsteinium-253	0.1
Einsteinium-254m	1
Einsteinium-254	0.01
Fermium-252	1
Fermium-253	1

Radionuclide	**Quantity (μCi)**
Fermium-254	10
Fermium-255	1
Fermium-257	0.01
Mendelevium-257	10
Mendelevium-258	0.01
Any alpha-emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition	0.001
Any radionuclide other than alpha-emitting radionuclides not listed above, or mixtures of beta emitters of unknown composition	0.01

* To convert μCi to kBq, multiply the μCi value by 37.

NOTE: For purposes of R12-1-428(E), R12-1-432(A), and R12-1-443(A) where there is involved a combination of radionuclides in known amounts, the limit for the combination shall be derived as follows: determine, for each radionuclide in the combination, the ratio between the quantity present in the combination and the limit otherwise established for the specific radionuclide when not in combination. The sum of such ratios for all radionuclides in the combination may not exceed "1" -- that is, unity.

[1] The quantities listed above were derived by taking 1/10 of the most restrictive ALI listed in Table I, Columns 1and 2, of Appendix B to Article 4, rounding to the nearest factor of 10, and constraining the values listed between 37 Bq and 37 MBq (0.001 and 1,000 μCi). Values of 3.7 MBq (100 μCi) have been assigned for radionuclides having a radioactive half-life in excess of E+9 years, except rhenium, 37 MBq (1,000 μCi), to take into account their low specific activity.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3).

APPENDIX D. CLASSIFICATION AND CHARACTERISTICS OF LOW-LEVEL RADIOACTIVE WASTE

I. Classification of Radioactive Waste for Land Disposal

a) Considerations. Determination of the classification of radioactive waste involves two considerations. First, consideration must be given to the concentration of long-lived radionuclides (and their shorter-lived precursors) whose potential hazard will persist long after such precautions as institutional controls, improved waste form, and deeper disposal have ceased to be effective. These precautions delay the time when long-lived radio nuclides could cause exposures. In addition, the magnitude of the potential dose is limited by the concentration and availability of the radionuclide at the time of exposure. Second, consideration must be given to the concentration of shorter-lived radionuclides for which requirements on institutional controls, waste form, and disposal methods are effective.

b) Classes of waste.

1) Class A waste is waste that is usually segregated from other waste classes at the disposal site. The physical form and characteristics of Class A waste must meet the minimum requirements set forth in Section II(a). If Class A waste also meets the stability requirements set forth in Section II(b), it is not necessary to segregate the waste for disposal.

2) Class B waste is waste that must meet more rigorous requirements on waste form to ensure stability after disposal. The physical form and characteristics of Class B waste must meet both the minimum and stability requirements set forth in Section II.

3) Class C waste is waste that not only must meet more rigorous requirements on waste form to ensure stability but also requires additional measures at the disposal facility to protect against inadvertent intrusion. The physical form and characteristics of Class C waste must meet both the minimum and stability requirements set forth in Section II.

c) Classification determined by long-lived radionuclides. If the radioactive waste contains only radionuclides listed in Table I, classification shall be determined as follows:

1) If the concentration does not exceed 0.1 times the value in Table I, the waste is Class A.

2) If the concentration exceeds 0.1 times the value in Table I but does not exceed the value in Table I, the waste is Class C.

3) If the concentration exceeds the value in Table I, the waste is not generally acceptable for land disposal.

4) For wastes containing mixtures of radionuclides listed in Table I, the total concentration shall be determined by the sum of fractions rule described in Section I(g).

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TABLE I

Concentration

Radionuclide	curie/cubic meter[a]	nanocuries/gram[b]
C-14	8	
C-14 in activated metal	80	
Ni-59 in activated metal	220	
Nb-94 in activated metal	0.2	
Tc-99	3	
I-129	0.08	
Alpha-emitting transuranic radionuclides with half-life greater than five years	100	
Pu-241		3,500
Cm-242		20,000
Ra-226		100

[a]To convert the Ci/m^3 values to gigabecquerel (GBq) per cubic meter, multiply the Ci/m^3 value by 37.
[b]To convert the nCi/g values to becquerel (Bq) per gram, multiply the nCi/g value by 37.

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d) Classification determined by short-lived radionuclides. If the waste does not contain any of the radionuclides listed in Table I, classification shall be determined based on the concentrations shown in Table II. However, as specified in Section I(f), if radioactive waste does not contain any nuclides listed in either Table I or II, it is Class A.
   1) If the concentration does not exceed the value in Column 1, the waste is Class A.
   2) If the concentration exceeds the value in Column 1 but does not exceed the value in Column 2, the waste is Class B.
   3) If the concentration exceeds the value in Column 2 but does not exceed the value in Column 3, the waste is Class C.
   4) If the concentration exceeds the value in Column 3, the waste is not generally acceptable for near-surface disposal.
   5) For wastes containing mixtures of the radionuclides listed in Table II, the total concentration shall be determined by the sum of fractions rule described in Section I(g).

TABLE II

Radionuclide	Concentration, curie/cubic meter*		
	Column 1	Column 2	Column 3
Total of all radionuclides with less than 5-year half-life	700	*	*
H-3	40	*	*
Co-60	700	*	*
Ni-63	3.5	70	700
Ni-63 in activated metal	35	700	7000
Sr-90	0.04	150	7000
Cs-137	1	44	4600

*AGENCY NOTE: To convert the Ci/m^3 value to gigabecquerel (GBq) per cubic meter, multiply the Ci/m^3 value by 37. There are no limits established for these radionuclides in Class B or C wastes. Practical considerations such as the effects of external radiation and internal heat generation on transportation, handling, and disposal will limit the concentrations for these wastes. These wastes shall be Class B unless the concentrations of other radionuclides in Table II determine the waste to be Class C independent of these radionuclides.

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e) Classification determined by both long- and short-lived radionuclides. If the radioactive waste contains a mixture of radionuclides, some of which are listed in Table I and some of which are listed in Table II, classification shall be determined as follows:
   1) If the concentration of a radionuclide listed in Table I is less than 0.1 times the value listed in Table I, the class shall be that determined by the concentration of radionuclides listed in Table II.
   2) If the concentration of a radionuclide listed in Table I exceeds 0.1 times the value listed in Table I, but does not exceed the value in Table II, the waste shall be Class C, provided the concentration of radionuclides listed in Table II does not exceed the value shown in Column 3 of Table II.

f) Classification of wastes with radionuclides other than those listed in Tables I and II. If the waste does not contain any radionuclides listed in either Table I or II, it is Class A.

g) The sum of the fractions rule for mixtures of radionuclides. For determining classification for waste that contains a mixture of radionuclides, it is necessary to determine the sum of fractions by dividing each radionuclide's concentration by the appropriate limit and adding the resulting values. The appropriate limits shall all be taken from the same column of the same table. The sum of the fractions for the column shall be less than 1.0 if the waste class is to be determined by that column. Example: A waste contains Sr-90 in a concentration of 1.85 TBq/m^3 (50 Ci/m^3) and Cs-137 in a concentration of 814 GBq/m^3 (22 Ci/m^3). Since the concen-

trations both exceed the values in Column 1, Table II, they shall be compared to Column 2 values. For Sr-90 fraction, 50/150 = 0.33, for Cs-137 fraction, 22/44 = 0.5; the sum of the fractions = 0.83. Since the sum is less than 1.0, the waste is Class B.

h) Determination of concentrations in wastes. The concentration of a radionuclide may be determined by indirect methods such as use of scaling factors which relate the inferred concentration of one radionuclide to another that is measured, or radionuclide material accountability, if there is reasonable assurance that the indirect methods can be correlated with actual measurements. The concentration of a radionuclide may be averaged over the volume of the waste, or weight of the waste if the units are expressed as becquerel (nanocurie) per gram.

II. Radioactive Waste Characteristics

a) The following are minimum requirements for all classes of waste and are intended to facilitate handling and provide protection of health and safety of personnel at the disposal site.

1) Wastes shall be packaged in conformance with the conditions of the license issued to the site operator to which the waste will be shipped. Where the conditions of the site license are more restrictive than the provisions of Article 4, the site license conditions shall govern.

2) Wastes shall not be packaged for disposal in cardboard or fiberboard boxes.

3) Liquid waste shall be packaged in sufficient absorbent material to absorb twice the volume of the liquid.

4) Solid waste containing liquid shall contain as little free-standing and non-corrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume.

5) Waste shall not be readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.

6) Waste shall not contain, or be capable of generating, quantities of toxic oases, vapors, or fumes harmful to persons transporting, handling, or disposing of the waste. This does not apply to radioactive gaseous waste packaged in accordance with Section II(a)(8).

7) Waste shall not be pyrophoric. Pyrophoric materials contained in wastes shall be treated, prepared, and packaged to be nonflammable *****

8) Wastes in a gaseous form shall be packaged at an absolute pressure that does not exceed 1.5 atmospheres at 20° C. Total activity shall not exceed 3.7 TBq (100 Ci) per container.

9) Wastes containing hazardous, biological, pathogenic, or infectious material shall be treated to reduce to the maximum extent practicable the potential hazard from the non-radiological materials.

b) The following requirements are intended to provide stability of the waste. Stability is intended to ensure that the waste does not degrade and affect overall stability of the site through slumping, collapse, or other failure of the disposal unit and thereby lead to water infiltration. Stability is also a factor in limiting exposure to an inadvertent intruder, since it provides a recognizable and nondispersible waste.

1) Waste shall have structural stability. A structurally stable waste form will generally maintain its physical dimensions and its form, under the expected disposal conditions such as weight of overburden and compaction equipment, the presence of moisture, and microbial activity, and internal factors such as radiation effects and chemical changes. Structural stability can be provided by the waste form itself, processing the waste to a stable form, or placing the waste in a disposal container or structure that provides stability after disposal.

2) Notwithstanding the provisions in Section II(a)(3) and (4), liquid wastes, or wastes containing liquid, shall be converted into a form that contains as little free-standing and noncorrosive liquid as is reasonably achievable, but in no case shall the liquid exceed 1% of the volume of the waste when the waste is in a disposal container designed to ensure stability, or 0.5% of the volume of the waste for waste processed to a stable form.

3) Void spaces within the waste and between the waste and its package shall be reduced to the extent practicable.

III. Labeling

Each package of waste shall be clearly labeled to identify whether it is Class A, Class B, or Class C waste, in accordance with Section I.

*****See (A)(4) of these regulations for definition of pyrophoric.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3).

APPENDIX E. QUANTITIES FOR USE WITH DECOMMISSIONING

Material	**Microcurie**
Americium-241	0.01
Antimony-122	100
Antimony-124	10
Antimony-125	10
Arsenic-73	100
Arsenic-74	10
Arsenic-76	10
Arsenic-77	100
Barium-131	10
Barium-133	10
Barium-140	10
Bismuth-210	1
Bromine-82	10
Cadmium-109	10
Cadmium-115m	10
Cadmium-115	100
Calcium-45	10
Calcium-47	10
Carbon-14	100
Cerium-141	100
Cerium-143	100
Cerium-144	1
Cesium-131	1,000
Cesium-134m	100
Cesium-134	1
Cesium-135	10
Cesium-136	10
Cesium-137	10
Chlorine-36	10
Chlorine-38	10
Chromium-51	1,000
Cobalt-58m	10
Cobalt-58	10
Cobalt-60	1
Copper-64	100
Dysprosium-165	10
Dysprosium-166	100
Erbium-169	100
Erbium-171	100
Europium-152 (9.2 h)	100
Europium-152 (13 yr)	1
Europium-154	1
Europium-155	10
Fluorine-18	1,000
Gadolinium-153	10
Gadolinium-159	100
Gallium-72	10
Germanium-71	100
Gold-198	100
Gold-199	100
Hafnium-181	10
Holmium-166	100
Hydrogen-3	1,000
Indium-113m	100
Indium-114m	10
Indium-115m	100
Indium-115	10
Iodine-125	1
Iodine-126	1
Iodine-129	0.1

Iodine-131	1
Iodine-132	10
Iodine-133	1
Material	**Microcurie**
Iodine-134	10
Iodine-135	10
Iridium-192	10
Iridium-194	100
Iron-55	100
Iron-59	10
Krypton-85	100
Krypton-87	10
Lanthanum-140	10
Lutetium-177	100
Manganese-52	10
Manganese-54	10
Manganese-56	10
Mercury-197m	100
Mercury-197	100
Mercury-203	10
Molybdenum-99	100
Neodymium-147	100
Neodymium-149	100
Nickel-59	100
Nickel-63	10
Nickel-65	100
Niobium-93m	10
Niobium-95	10
Niobium-97	10
Osmium-185	10
Osmium-191m	100
Osmium-191	100
Osmium-193	100
Palladium-103	100
Palladium-109	100
Phosphorus-32	10
Platinum-191	100
Platinum-193m	100
Platinum-193	100
Platinum-197m	100
Platinum-197	100
Plutonium-239	0.01
Polonium-210	0.1
Potassium-42	10
Praseodymium-142	100
Praseodymium-143	100
Promethium-147	10
Promethium-149	10
Radium-226	0.01
Rhenium-186	100
Rhenium-188	100
Rhodium-103m	100
Rhodium-105	100
Rubidium-86	10
Rubidium-87	10
Ruthenium-97	100
Ruthenium-103	10
Ruthenium-105	10
Ruthenium-106	1
Samarium-151	10
Samarium-153	100
Scandium-46	10

Scandium-47	100
Scandium-48	10
Selenium-75	10
Silicon-31	100
Silver-105	10

* To convert μCi to kBq, multiply the μCi value by 37.

Material	**Microcurie**
Silver-110m	1
Silver-111	100
Sodium-22	1
Sodium-24	10
Strontium-85	10
Strontium-89	1
Strontium-90	0.1
Strontium-91	10
Strontium-92	10
Sulfur-35	100
Tantalum-182	10
Technetium-96	10
Technetium-97m	100
Technetium-97	100
Technetium-99m	100
Technetium-99	10
Tellurium-125m	10
Tellurium-127m	10
Tellurium-127	100
Tellurium-129m	10
Tellurium-129	100
Tellurium-131m	10
Tellurium-132	10
Terbium-160	10
Thallium-200	100
Thallium-201	100
Thallium-202	100
Thallium-204	10
Thorium (natural)**	100
Thulium-170	10
Thulium-171	10
Tin-113	10
Tin-125	10

Material	**Microcurie**
Tungsten-181	10
Tungsten-185	10
Tungsten-187	100
Uranium (natural)**	100
Uranium-233	0.01
Uranium-234	0.01
Uranium-235	0.01
Vanadium-48	10
Xenon-131m	1,000
Xenon-133	100
Xenon-135	100
Ytterbium-175	100
Yttrium-90	10
Yttrium-91	10
Yttrium-92	100
Yttrium-93	100
Zinc-65	10
Zinc-69m	100
Zinc-69	1,000

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Zirconium-93	10
Zirconium-95	10
Zirconium-97	10
Any alpha emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition	0.01
Any radionuclide other than alpha emitting radionuclides, not listed above or mixtures of beta emitters of unknown composition	0.1

*To convert μCi to kBq, multiply the μCi value by 37.
** Based on alpha disintegration rate of Th-232, Th-230 and their daughter products.
*** Based on alpha disintegration rate of U-238, U-234, and U-235.

NOTE: Where there is involved a combination of isotopes in known amounts, the limit for the combination should be derived as follows: Determine, for each isotope in the combination, the ratio between the quantity present in the combination and the limit otherwise established for the specific isotope when not in combination. The sum of such ratios for all the isotopes in the combination may not exceed “1” - that is, unity.

Historical Note

Adopted effective August 10, 1994 (Supp. 94-3).

ARRA-6. Repealed

Historical Note

Adopted effective February 25, 1985 (Supp. 85-1). Form repealed, new form adopted in Article 10 effective August 10, 1994 (Supp. 94-3).

ARRA-7. Repealed

Historical Note

Adopted effective February 25, 1985 (Supp. 85-1). Repealed effective August 10, 1994 (Supp. 94-3).

ARRA-8. Repealed

Historical Note

Adopted effective February 25, 1985 (Supp. 85-1). Repealed effective August 10, 1994 (Supp. 94-3).

ARTICLE 5. SEALED SOURCE INDUSTRIAL RADIOGRAPHY

R12-1-501. Definitions

“Access panel” means any panel that is designed to be removed or opened for maintenance or service purposes, opened using tools, and used to provide access to the interior of the cabinet x-ray unit.

“Annual refresher safety training” means a review conducted or provided by the licensee for its employees on radiation safety aspects of industrial radiography. The review shall include, as applicable, the results of internal inspections, new procedures or equipment, new or revised state rules, accidents or errors that have occurred, and provide opportunities for employees to ask safety questions.

“Aperture” means any opening in the outside surface of the cabinet x-ray unit, other than a port, which remains open during generation of x-radiation.

“Associated equipment” means equipment used in conjunction with a radiographic exposure device that drives, guides, or comes in contact with the source.

“Certifying entity” means an independent certifying organization that complies with the requirements in Appendix A of this Article, or requirements of the NRC or another Agreement State, that are equivalent to the requirements in parts II and III of Appendix A.

“Collimator” means a radiation shield that is placed on the end of the guide tube or directly onto a radiographic exposure device to restrict the size of the radiation beam when the sealed source is positioned to make a radiographic exposure.

“Control (drive) cable” means the cable that is connected to the source assembly and used to drive the source to and from the exposure location.

“Control (drive) mechanism” means a device that enables the source assembly to be moved to and from the exposure device.

"Control tube" means a protective sheath for guiding the control cable. The control tube connects the control drive mechanism to the radiographic exposure device.

"Door" means any barrier that is designed to be movable or opened for routine operation purposes, not opened using tools, and used to provide access to the interior of the cabinet x-ray unit.

"Exposure head" means a device that places the gamma radiography sealed source in a selected working position.

"Ground fault" means an accidental electrical grounding of an electrical conductor.

"Guide tube (projection sheath)" means a flexible or rigid tube (i.e., "J" tube) for guiding the source assembly and the attached control cable from the exposure device to the exposure head. The guide tube may also include the connections necessary for attachment to the exposure device and to the exposure head.

"Hands-on experience" means accumulation of knowledge or skill in any area relevant to radiography.

"Independent certifying organization" means an independent organization that meets all of the requirements in Appendix A.

"Lay-barge radiography" means industrial radiography performed on any water vessel used for laying pipe.

"Port" means any opening in the outside surface of the cabinet x-ray unit that is designed to remain open, during generation of x-rays, for conveying material being irradiated into and out of the cabinet, or for partial insertion of an object for irradiation whose dimensions do not permit complete insertion into the cabinet x-ray unit.

"Practical examination" means a demonstration, through practical application of safety rules and principles of industrial radiography, including use of all radiography equipment and knowledge of radiography procedures.

"Radiographer certification" means written approval received from a certifying entity stating that an individual has satisfactorily met certain established radiation safety, testing, and experience criteria.

"Radiographic exposure device" means any x-ray machine used for purposes of making an industrial radiographic exposure or a device that contains a sealed source, and the sealed source or its shielding may be moved or otherwise changed from a shielded to an unshielded position for purposes of making an industrial radiographic exposure.

"Radiographic operations" means all activities associated with the presence of radiation sources in a radiographic exposure device during use of the device or transport (except when the device is being transported by a common or contract carrier). This includes performing surveys to confirm the adequacy of boundaries, setting up equipment, and conducting any activity inside restricted area boundaries.

"S-tube" means a tube through which a radioactive source travels when the source is inside a radiographic exposure device.

"Source assembly" means an assembly that consists of a sealed source and a connector that attaches the source to a control cable. The source assembly may also include a stop ball used to secure the source in the shielded position.

"Underwater radiography" means industrial radiography performed when a radiographic exposure device is beneath the surface of water.

Historical Note

Former Rule Section E.1; Former Section R12-1-501 repealed, new Section R12-1-501 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-501 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4).

R12-1-502. License Requirements

A. The Agency shall review an application for a specific license for the use of radioactive material in industrial radiography and approve the license if an applicant meets all of the following requirements:
1. The applicant satisfies the general requirements in R12-1-309 and any special requirements contained in this Article; and
2. The applicant submits a program for training radiographers and radiographers' assistants that complies with R12-1-543, except that:
   a. After the effective date of this Section, an applicant is not required to describe its initial training and examination program for radiographers;
   b. An applicant shall affirm that an individual who is acting as an industrial radiographer is certified in radiation safety by a certifying organization, as required in R12-1-543, before permitting the individual to act as a radiographer. This affirmation substitutes for a description of the applicant's initial training and examination program for radiographers in the subjects outlined in R12-1-543(G); and
   c. An applicant shall submit procedures for verifying and documenting the certification status of each radiographer and for ensuring that the certification remains valid.

B. The applicant shall submit written operating and emergency procedures as prescribed in R12-1-522.

C. The applicant shall submit a description of a program for review of job performance of each radiographer and radiographers' assistant at intervals that do not exceed six months as prescribed in R12-1-543(E).

D. The applicant shall submit a description of the applicant's overall organizational structure as it applies to radiation safety responsibilities in industrial radiography, including specified delegation of authority and responsibility.

E. The applicant shall submit a list of the qualifications of each individual designated as an RSO under R12-1-512 and indicate which designee is responsible for ensuring that the licensee's radiation safety program is implemented in accordance with approved procedures.

F. If an applicant intends to perform leak testing on any sealed source or exposure device that contains depleted uranium (DU) shielding, the applicant shall submit a description of the procedures for performing the leak testing and the qualifications of each person authorized to perform leak testing. If the applicant intends to analyze its own wipe samples, the application shall include a description of the procedures to be followed. The description shall include the:

1. Instruments to be used,
2. Methods of performing the analysis, and
3. Relevant experience of the person who will analyze the wipe samples.

G. If the applicant intends to perform "in-house" calibrations of survey instruments, the applicant shall describe each calibration method to be used and the relevant experience of each person who will perform a calibration. A licensee shall perform all calibrations according to the procedures prescribed in R12-1-504.

H. The applicant shall identify and describe the location of all field stations and permanent radiographic installations.

I. The applicant shall identify each location where records required by this Chapter will be maintained.

Historical Note

Former Rule Section E.2; Former Section R12-1-502 repealed, new Section R12-1-502 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-502 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Section repealed, new Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-503. Performance Requirements for Equipment

A. A licensee shall ensure that equipment used in industrial radiographic operations meets the following minimum criteria:

1. Each radiographic exposure device, source assembly or sealed source, and all associated equipment meet the requirements in American National Standards Institute, N432-1980 Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography, 1980 edition, published as NBS Handbook 136 and issued January 1981 by the American National Standards Institute, which is incorporated by reference and on file with the Agency. This incorporation by reference contains no future editions or amendments. This publication may be purchased from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018 Telephone (212) 642-4900; or
2. An engineering safety analysis demonstrates the applicability of previously performed testing on similar individual radiography equipment components. Based on a review of the analysis, the Agency may find that previously performed testing can be substituted for testing of the component under the standards in subsection (A)(1).

B. In addition to the requirements in subsection (A), the following requirements apply to each radiographic exposure device, source changer, source assembly, and sealed source:

1. A licensee shall ensure that each radiographic exposure device has attached to it a durable, legible, and clearly visible label bearing:
   a. The chemical symbol and mass number of the radionuclide in the device;
   b. The activity of the source and the date on which this activity was last measured;
   c. The model (or product code) and serial number of the sealed source;
   d. The manufacturer's description of the sealed source; and
   e. The licensee's name, address, and telephone number.
2. A licensee shall ensure that each radiographic exposure device intended for use as a Type B transport container meets the applicable requirements of 10 CFR 71, 2003 edition, published January 1, 2003, by the Office of the Federal Register National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency. This incorporation by reference contains no future editions or amendments.
3. A licensee shall not modify any radiographic exposure device, source changer, source assembly, or associated equipment, unless the design of the replacement component, including source holder, source assembly, controls, or guide tubes is consistent with and does not compromise the design safety features of the system.

C. In addition to the requirements in subsections (A) and (B), the following requirements apply to each radiographic exposure device, source assembly, and associated equipment that allows the source to be moved out of the device for radiographic operations or to a source changer:

1. The license shall ensure that the coupling between the source assembly and the control cable is designed so that the source assembly does not become disconnected if it is positioned outside of the guide tube and is constructed so that an unintentional disconnect will not occur under normal and reasonably foreseeable abnormal conditions;
2. The device automatically secures the source assembly if it is retracted into the fully shielded position within the device and the securing system is released from the exposure device only by means of a deliberate operation;
3. The outlet fittings, lock box, and drive cable fittings on each radiographic exposure device are equipped with safety plugs or covers installed for storage and transportation to protect the source assembly from water, mud, sand, or other foreign matter;
4. Each sealed source or source assembly has attached to it or is engraved with a durable, legible, and visible label with the words: "DANGER--RADIOACTIVE." The licensee shall ensure that the label does not interfere with safe operation of the equipment;

5. The guide tube is able to withstand a crushing test that closely approximates the crushing forces that are likely to be encountered during use, and a kinking resistance test that closely approximates the kinking forces that are likely to be encountered during use;
6. A guide tube is used if a person moves the source out of the device;
7. An exposure head or similar device, designed to prevent the source assembly from passing out of the end of the guide tube, is attached to the outermost end of the guide tube during industrial radiography operations;
8. The guide tube exposure head connection is able to withstand the tensile test for control units specified in ANSI N432-1980, incorporated by reference in subsection (A); and
9. Source changers provide a system for ensuring that the source is not accidentally withdrawn from the changer when a person is connecting or disconnecting the drive cable to or from the source assembly.

D. A licensee shall ensure that radiographic exposure devices and associated equipment in use after January 10, 1996 comply with the requirements of this Section.

E. Notwithstanding subsection (A), a licensee with equipment used in industrial radiographic operations need not comply with Sec. 8.92(C) of the Endurance Test in American National Standards Institute N432-1980 if the prototype equipment has been tested using a torque value representative of the torque that an individual using the radiography equipment can realistically exert on the lever or crankshaft of the drive mechanism.

Historical Note

Former Rule Section E.3; Former Section R12-1-503 repealed, new Section R12-1-503 adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Former Section R12-1-503 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Section repealed; new Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-504. Radiation Survey Instruments

A. A licensee shall maintain at least two calibrated and operable radiation survey instruments at each location where sources of radiation are present to make radiation surveys required by this Article and Article 4 of this Chapter. Instrumentation required by this Section shall be capable of measuring a range from 0.02 millisieverts (2 millirems) per hour through 0.01 sievert (1 rem) per hour.

B. A licensee shall ensure that each radiation survey instrument required under subsection (A) is calibrated:

1. At intervals that do not exceed six months, and after instrument servicing, except for battery changes;
2. For linear scale instruments, at two points located approximately one-third and two-thirds of full-scale on each scale; for logarithmic scale instruments, at mid-range of each decade, and at two points of at least one decade; and for digital instruments, at 3 points between 0.02 and 10 millisieverts (2 and 1000 millirems) per hour; and
3. So that an accuracy within plus or minus 20% of the calibration source can be demonstrated at each point checked.

C. A licensee shall maintain calibration records for each radiation survey instrument, and maintain each record for three years after it is made.

Historical Note

Former Rule Section E.4; Former Section R12-1-504 repealed, new Section R12-1-504 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-504 repealed, new Section R12-1-504 adopted effective December 20, 1985 (Supp. 85-6). Former Section R12-1-504 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-505. Leak Testing and Replacement of Sealed Sources

A. A licensee shall ensure that replacement of any sealed source fastened to or contained in a radiographic exposure device and leak testing of any sealed source is performed by a person authorized to do so by the Agency, NRC, or another Agreement State.

B. A licensee shall ensure that opening, repairing, or modifying any sealed source is performed by a person specifically authorized to do so by the Agency, NRC, or another Agreement State.

C. A licensee that uses a sealed source shall have the source tested for leakage by a qualified person at intervals that do not exceed six months. The person who performs leak testing of the source shall use a method approved by the Agency, NRC, or by another Agreement State. A wipe sample shall be taken from the nearest accessible point to the sealed source where contamination might accumulate. The wipe sample shall be analyzed for radioactive contamination. The licensee shall ensure that the analysis is capable of detecting the presence of 185 Bq (0.005 microcurie) of radioactive material on the test sample and a person specifically authorized by the Agency, NRC, or another Agreement State performs the analysis. The licensee shall maintain records of the leak tests in accordance with this Section.

D. Unless a sealed source is accompanied by a certificate from the transferor that shows that the sealed source has been leak tested within six months before the transfer, a licensee shall not use the sealed source until it is tested for leakage. A licensee is not required to test a sealed source that is in storage, but shall test each sealed source before use or transfer to another person if the interval of storage exceeds six months.

E. A licensee shall immediately withdraw equipment containing a leaking source from use and have it decontaminated and repaired or dispose of the source in accordance with this Chapter. The licensee shall file a report with the Director of the Agency within five days of any test with results that exceed the threshold in this subsection, and describe the equipment involved, the test results, and corrective action taken. If a leak test conducted under this Section reveals the presence of 185 Bq (0.005 microcurie) or more of removable radioactive material the Agency classifies the sealed source as leaking.

F. A licensee shall test for DU contamination at intervals that do not to exceed 12 months a radiographic exposure device that uses depleted uranium (DU) shielding and an "S" tube configuration. The licensee shall ensure that the analysis is capable of detecting the presence of 185 Bq (0.005 microcuries) of radioactive material on the test sample and a person specifically authorized by the Agency, NRC, or another Agreement State performs the analysis. If the testing reveals the presence of 185 Bq (0.005 microcuries) or more of removable DU contamination, the licensee shall remove the exposure device from use until an evaluation of the wear on the S-tube is completed. If the evaluation reveals that the S-tube is worn through, the licensee shall ensure that the device is not used again. The licensee is not required to test for DU contamination if the radiographic exposure device is in storage. Before using or transferring the radiographic exposure device, the licensee shall test the device for DU contamination if the interval of storage exceeds 12 months. The licensee shall maintain records of the DU leak test in accordance with subsection (G).

G. A licensee shall maintain records of leak test results for each sealed source and for each device that contains DU. The licensee shall ensure results are in Becquerels (microcuries), and retain each record for three years after it is made or until the source is removed from storage and tested, which ever is longer.

Historical Note

Former Rule Section E.5; Former Section R12-1-505 repealed, new Section R12-1-505 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-505 repealed, new Section R12-1-505 adopted effective December 20, 1985 (Supp. 85-6). Amended subsections (A), (F) and (G) effective May 2, 1988 (Supp. 88-2). Former Section R12-1-505 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-506. Quarterly Inventory

A. A licensee shall conduct a quarterly physical inventory to account for all sealed sources and devices that contain depleted uranium.

B. A licensee shall maintain a record of the quarterly inventory required under subsection (A) for three years after it is made.

C. The record required in subsection (B) shall include the date of the inventory, name of the individual who conducted the inventory, radionuclide, number of becquerels (curies) or mass (for DU) in each device, location of sealed source and associated devices, and manufacturer, model, and serial number of each sealed source and device as applicable.

Historical Note

Former Rule Section E.6; Former Section R12-1-506 repealed, new Section R12-1-506 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-506 repealed, new Section R12-1-506 adopted effective December 20, 1985 (Supp. 85-6). Amended subsection (A) effective May 2, 1988 (Supp. 88-2). Former Section R12-1-506 repealed, new Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-507. Utilization Logs

A. A licensee shall maintain for each sealed source a utilization log that provides all of the following information:

1. A description, including the make, model, and serial number of each radiographic exposure device, and each sealed source transport and storage container that contains a sealed source;
2. The identity and signature of the radiographer using the source; and
3. The plant or site where the source is used and dates of use, including the date each source is removed from and returned to storage.

B. A licensee shall retain the log required by subsection (A) for three years after the log is made.

Historical Note

Former Section R12-1-507 repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective April 2, 1990 (Supp. 90-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-508. Inspection and Maintenance of Radiographic Exposure Devices, Transport and Storage Containers, Source Changers, Survey Instruments, and Associated Equipment

A. A licensee shall perform visual and operability checks on each survey instrument, radiographic exposure device, transport and storage container, source changer, and associated equipment before use on each day the equipment is to be used to ensure that the equipment is in good working condition, the source is adequately shielded, and required labeling is present. A survey instrument operability check shall be performed using a check source or other authorized means. If an equipment problem is found, the licensee shall remove the equipment from service until it is repaired.

B. A licensee shall have written inspection and maintenance procedures to ensure that:

1. Radiographic exposure devices, source changers, transport and storage containers, survey instruments, and associated equipment that require inspection and maintenance at intervals that do not exceed three months or before first use of the equipment are functioning properly and safely. Replacement components shall meet design specifications. If an equipment problem is discovered, the licensee shall remove the equipment from service until it is repaired; and
2. Type B packages are shipped and maintained in accordance with the certificate of compliance or other approval.

C. A licensee shall maintain records of daily checks and quarterly inspections of radiographic exposure devices, transport and storage containers, source changers, survey instruments, and associated equipment, and retain each record for three years after it is made. The record shall include the date of the check or inspection, name of the inspector, equipment involved, any problems found, and any repair or needed maintenance performed.

Historical Note

Former Section R12-1-508 repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective April 2, 1990 (Supp. 90-2). Heading amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-509. Surveillance

During each radiographic operation, a radiographer or the radiographer's assistant, as permitted by R12-1-510, shall maintain continuous direct visual surveillance of the operation to protect against unauthorized entry into a high radiation area, except at permanent radiographic installations where all entrances are locked and the licensee is in compliance with R12-1-539.

Historical Note

Former Section R12-1-509 repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-510. Radiographic Operations

A. If industrial radiography is performed at a location other than a permanent radiographic installation, a licensee shall ensure that the radiographer is accompanied by at least one other radiographer or radiographer's assistant, qualified under R12-1-543. The additional radiographer or radiographer's assistant shall observe the operations and be capable of providing immediate assistance to prevent unauthorized entry. Industrial radiography is prohibited if only one qualified individual is present.

B. A licensee shall ensure that each industrial radiographic operation is conducted at a location of use authorized on the license in a permanent radiographic installation, unless another permanent location is specifically authorized by the Agency.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-511. Repealed

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section adopted effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-512. Radiation Safety Officer (RSO)

A. A licensee shall have a radiation safety officer (RSO) who is responsible for implementing procedures and regulatory requirements in the daily operation of the radiation safety program.

B. Except as provided in subsection (C), the licensee shall ensure that the RSO satisfies the following minimum requirements:
1. The training and testing requirements in R12-1-543,
2. Two thousand hours of hands-on experience as a qualified radiographer for an industrial radiographic operation, and
3. Formal training in the establishment and maintenance of a radiation safety program.

C. If the licensee uses an individual in the position of RSO who does not have the training and experience required in subsection (B), the licensee shall provide the Agency with a description of the individual's training and experience in the field of ionizing radiation and training with respect to the establishment and maintenance of a radiation safety protection program so the Agency can determine whether the individual is qualified to perform under subsection (D).

D. The specific duties and authorities of the RSO include, but are not limited to:
1. Establishing and overseeing operating, emergency, and ALARA procedures as required in Article 4 of this Chapter and reviewing them every year to ensure that the procedures in use conform to current Agency rules and license conditions;
2. Overseeing and approving all phases of the training program for radiographic personnel, ensuring that appropriate and effective radiation protection practices are taught;
3. Overseeing radiation surveys, leak tests, and associated documentation to ensure that the surveys and tests are performed in accordance with the rules and taking corrective measures if levels of radiation exceed established action limits;
4. Overseeing the personnel monitoring program to ensure that devices are calibrated and used properly by occupationally exposed personnel and ensuring that records are kept of the monitoring results and timely notifications are made as required in R12-1-444; and
5. Overseeing operations to ensure that they are conducted safely and instituting corrective actions, which may include ceasing operations if necessary.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-513. Form of Records

A licensee shall maintain records in accordance with R12-1-405.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-514. Limits on External Radiation Levels from Storage Containers and Source Changers

The maximum rate limits for storage containers and source changers are 2 millisieverts (200 mRem/hr) at any exterior surface and 0.1 millisieverts (10 mRem/hr) at 1 meter from any exterior surface with the sealed source in the shielded position.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

R12-1-515. Locking Radiographic Exposure Devices, Storage Containers, and Source Changers

A. Except at permanent radiographic installations governed by R12-1-539, a licensee shall ensure that each radiographic exposure device has a lock or an outer container with a lock designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The licensee shall ensue that the exposure device or its container, if applicable, is locked (and if a keyed lock, with the key removed) if the device or container is not under the direct surveillance of a radiographer or a radiographer's assistant. During radiographic operations, the radiographer or radiographer's assistant shall secure the sealed source assembly in the shielded position each time the source is returned to the shielded position.

B. A licensee shall ensure that each sealed source storage container and source changer has a lock or an outer container with a lock designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The licensee shall ensure that each storage container and source changer is locked (and if a keyed lock, with the key removed) if the storage container or source changer contains a sealed source and is not under the direct surveillance of a radiographer or a radiographer's assistant.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-516. Records of Receipt and Transfer of Sealed Sources

A. A licensee shall maintain records that show each receipt and transfer of a sealed source or device that uses DU for shielding and retain each record for three years after it is made.

B. The records shall contain separate entries for each transaction, including the date, name of the individual making the record, radionuclide, number of Becquerels (curies) or mass (for DU), and manufacturer, model, and serial number of each sealed source or device, as applicable.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-517. Posting

A licensee shall post any area in which industrial radiography is performed as required by R12-1-429. Exceptions listed in R12-1-430 do not apply to industrial radiographic operations.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-518. Labeling, Storage, and Transportation

A. A licensee shall not use a source changer or a storage container to store licensed material unless the source changer or the storage container has securely attached to it a durable, legible, and clearly visible label that bears the standard trefoil radiation caution symbol and the standard colors for the symbol specifically: magenta, purple, or black on a yellow background, and the label has a minimum diameter of 25 mm and the wording "CAUTION (or DANGER), RADIOACTIVE MATERIAL NOTIFY CIVIL AUTHORITIES (or "NAME OF COMPANY")"

B. A licensee shall not transport licensed material unless the material is packaged and the package is labeled, marked, and accompanied with appropriate shipping papers in accordance with 10 CFR 71, January 1, 2004, published by the Office of the Federal Register, National Archives and Records Administration, incorporated by reference, and on file with the Agency. This incorporation by reference contains no future editions or amendments.

C. A licensee shall physically secure locked radiographic exposure devices and storage containers behind a locked door to prevent tampering or removal by unauthorized personnel. The licensee shall store licensed material in a manner that will minimize danger from explosion or fire.

D. A licensee shall lock each transport package that contains licensed material and physically secure the package behind the locked doors of the transporting vehicle to prevent accidental loss, tampering, or unauthorized removal of the licensed material from the vehicle.

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6). New Section made by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4).

R12-1-519. Repealed

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6).

R12-1-520. Repealed

Historical Note

Repealed effective December 20, 1985 (Supp. 85-6).

R12-1-521. Repealed

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-522. Operating and Emergency Procedures

A. A licensee shall ensure that the operating and emergency procedures include, at a minimum, instructions in the following, as applicable:

1. Handling and use of sealed sources or radiographic exposure devices, so that persons are not exposed to radiation that exceeds the limits in Article 4 of this Chapter;
2. Methods and occasions for conducting radiation surveys;
3. Methods for controlling access to radiographic areas;
4. Methods and occasions for locking and securing radiographic exposure devices, transport and storage containers, and sealed sources;
5. Personnel monitoring and associated equipment;
6. Transportation of sealed sources to field locations, including packing radiographic exposure devices and storage containers in vehicles, placarding vehicles, and maintaining control of the sealed sources during transportation, as required in 49 CFR 171-173, 2002 edition, published October 1, 2002, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency. This incorporation contains no future editions or amendments;
7. Inspection, maintenance, and operability checks of radiographic exposure devices, survey instruments, transport containers, and storage containers;
8. Actions to be taken immediately by radiography personnel if a pocket dosimeter is found to be off-scale or an alarm rate meter sounds an alarm;
9. Procedures for identifying and reporting defects and noncompliance, as required by R12-1-448 and R12-1-535;
10. Procedures for notifying the RSO and the Agency in the event of an accident;
11. Methods for minimizing exposure of persons in the event of an accident;
12. Procedures for recovering a source if the licensee is responsible for source recovery; and
13. Maintenance of records.

B. The licensee shall maintain copies of current operating and emergency procedures until the Agency terminates the license. Superseded procedures shall be maintained for three years after being superceded. Additionally, a copy of the procedures shall be maintained at field stations in accordance with R12-1-540.

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-523. Personnel Monitoring

A. A licensee shall not permit any individual to act as a radiographer or a radiographer's assistant unless, at all times during radiographic operations, each individual wears, on the trunk of the body, a direct reading dosimeter, an operating alarm rate meter, and a personnel dosimeter that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor. At permanent radiography installations where other appropriate alarming or warning devices are in routine use, the wearing of an alarm rate meter is not required. A licensee shall:

1. Use a pocket dosimeter with a range from zero to 2 millisieverts (200 millirems). The licensee shall ensure that each dosimeter is recharged at the start of each shift. Electronic personal dosimeters are permitted in place of ion-chamber pocket dosimeters.
2. Assign a personnel dosimeter to each individual, who shall wear the assigned equipment.
3. Replace film badges at least monthly and ensure that other personnel dosimeters are processed and evaluated by an accredited NVLAP processor and replaced at periods that do not exceed three months.
4. After replacement, ensure that each personnel dosimeter is processed as soon as possible.

B. A licensee shall record exposures noted from direct reading dosimeters, such as pocket dosimeters or electronic personal dosimeters, at the beginning and end of each shift. The licensee shall maintain the records for three years after the Agency terminates the license.

C. A licensee shall check pocket dosimeters and electronic personal dosimeters for correct response to radiation at periods that do not exceed 12 months. The licensee shall record the results of each check and maintain the records for three years after the dosimeter check is performed. The licensee shall discontinue use of a dosimeter if it is not accurate within plus or minus 20 percent of the true radiation exposure.

D. If an individual's pocket dosimeter has an off-scale reading, or the individual's electronic personal dosimeter reads greater than 2 millisieverts (200 millirems), and radiation exposure cannot be ruled out as the cause, a licensee shall process the individual's dosimeter within 24 hours of the suspect exposure. The licensee shall not allow the individual to resume work associated with sources of radiation until the individual's radiation exposure has been determined. Using information from the dosimeter, the licensee's RSO or the RSO's designee shall calculate the affected individual's cumulative radiation exposure as prescribed in Article 4 of this Chapter and include the results of this determination in the personnel monitoring records maintained in accordance with subsection (B).

E. If the personnel dosimeter that is required by subsection (A) is lost or damaged, the licensee shall ensure that the worker ceases work immediately until the licensee provides a replacement personnel dosimeter that meets the requirements in subsection (A) and the RSO or the RSO's designee calculates the exposure for the time period from issuance to discovery of the lost or damaged personnel dosimeter. The licensee shall maintain a record of the calculated exposure and the time period for which the personnel dosimeter was lost or damaged in accordance with subsection (B).

F. The licensee shall maintain dosimetry reports received from the accredited NVLAP personnel dosimeter processor in accordance with subsection (B).

G. For each alarm rate meter a licensee shall ensure that:

1. At the start of each shift, the alarm functions (sounds) properly before an individual uses the device;
2. Each device is set to give an alarm signal at a preset dose rate of 5 mSv/hr (500 mrem/hr); with an accuracy of plus or minus 20 percent of the true radiation dose rate;
3. A special means is necessary to change the preset alarm function on the device; and
4. Each device is calibrated at periods that do not exceed 12 months for correct response to radiation. The licensee shall maintain records of alarm rate meter calibrations in accordance with subsection (B).

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4).

R12-1-524. Supervision of a Radiographer's Assistant

If a radiographer's assistant uses a radiographic exposure device, associated equipment, or a sealed source or conducts a radiation survey required by R12-1-533(B) to determine that the sealed source has returned to the shielded position after an exposure, the licensee shall ensure that the assistant is under the personal supervision of a radiographer. For purposes of this Section "personal supervision" means:

1. The radiographer is physically present at the site where the sealed source is being used,
2. The radiographer is available to give immediate assistance if required, and
3. The radiographer is able to observe the assistant's performance directly.

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-525. Notification of Field Work

Each day radioactive material is used for industrial radiography, a licensee shall notify the Agency of any planned field radiography. The notice shall be in writing and specify the location of the field work, the name of the supervising individual at the job site, and the expected duration of the work at the job site listed in the notice. A facsimile that provides the required information is sufficient notice.

Historical Note

New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-526. Reserved

R12-1-527. Reserved

R12-1-528. Reserved

R12-1-529. Reserved

R12-1-530. Reserved

R12-1-531. Security

During each radiographic operation, the radiographer or radiographer's assistant shall maintain continuous direct visual surveillance of the operation to protect against unauthorized entry into a high radiation area, as defined in Article 1, unless:

1. The high radiation area is equipped with a control device or an alarm system as prescribed in R12-1-420(A), or
2. The high radiation area is locked to protect against unauthorized or accidental entry.

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2).

R12-1-532. Posting

Notwithstanding any provisions in R12-1-430, areas in which radiography is being performed shall be conspicuously posted as required by R12-1-429(A) and (B).

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3).

R12-1-533. Radiation Surveys

A. A licensee shall conduct surveys with a calibrated and operable radiation survey instrument that meets the requirements of R12-1-504.

B. Using a survey instrument that complies with subsection (A), the licensee shall conduct a survey of the radiographic exposure device and the guide tube after each exposure before approaching the device or the guide tube. The survey shall be performed to determine that the sealed source is in the shielded position before the radiographer or radiographer's assistant exchanges films, repositions the exposure head, or dismantles the equipment.

C. The licensee shall conduct a survey of the radiographic exposure device with a calibrated radiation survey instrument any time the source is exchanged or the device is placed in a storage area, as defined in R12-1-102, to ensure that the sealed source is in the shielded position.

D. The licensee shall maintain a record of each exposure device survey conducted before the device is placed in storage under subsection (C), if that survey is the last one performed during the workday. Each record shall be maintained for three years after the record is made.

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-534. Repealed

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-535. Notifications

A. In addition to the reporting requirements specified in Article 4, each licensee shall provide a written report to the Agency if any of the following incidents involving radiography equipment occur:
1. Unintentional disconnection of the source assembly from the control cable;
2. Inability to retract the source assembly to the fully shielded position or secure it in this position; or
3. Failure of any component (critical to safe operation of the device) to properly perform its intended function;

B. A licensee shall include the following information in any report submitted under this Section, regarding radiography equipment, or Article 4, regarding an overexposure, if the report concerns the failure of safety components of radiography equipment:
1. A description of the equipment problem;
2. Cause of the incident, if known;
3. Name of manufacturer and model number of the equipment involved in the incident;
4. Place, date, and time of the incident;
5. Actions taken to establish normal operations;
6. Corrective actions taken or planned to prevent reoccurrence; and
7. Qualifications of personnel involved in the incident.

C. Any licensee that conducts radiographic operations, or stores radioactive material at a location not listed on the license or for a period longer than 180 days during a calender year, shall notify the Agency of these activities before the 180 days has elapsed.

Historical Note

New Section made by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1).

R12-1-536. Reserved

R12-1-537. Reserved

R12-1-538. Reserved

R12-1-539. Permanent Radiographic Installations

A. If a licensee maintains a permanent radiographic installation that does not fall within the definition of "enclosed radiography" in R12-1-102, the licensee shall ensure that each entrance, used for personnel access to the high radiation area, has either:
1. An entrance control device of the type described in R12-1-420(A)(1) that reduces the radiation level upon entry into the area, or
2. Both conspicuous visible and audible alarm signals to warn of the presence of radiation. The licensee shall ensure that the visible signal is actuated by radiation if a source is exposed and the audible signal is actuated if someone attempts to enter the installation while a source is exposed.

B. A licensee with an alarm signal shall test the alarm signal for proper operation with a radiation source each day before the installation is used for radiographic operations. The test shall include a check of both the visible and audible signals. A licensee with an entrance control device shall test the device monthly. If an entrance control device or alarm signal is operating improperly, the licensee shall immediately label the device or signal as "defective" and repair the device or signal within seven calendar days. The licensee may continue to use the facility during this seven-day period, if the licensee implements continuous surveillance requirements of R12-1-509 and uses an alarming rate meter.

C. A licensee shall maintain each record an alarm system or entrance control device test for three years after the record is made.

Historical Note

New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-540. Location of Documents and Records

A. A licensee shall maintain a copy of each record required by this Article and other applicable Articles of this Chapter at a location specified under R12-1-502(I).

B. A licensee shall maintain a copy of each record listed below at each field station and temporary job site;

1. The license that authorizes use of radioactive material;
2. A copy of Articles 4, 5, and 10 of this Chapter;
3. Utilization logs for each radiographic exposure device dispatched from that location, as required by R12-1-507;
4. Records of equipment problems identified in daily checks of equipment, as required by R12-1-508(A);
5. Records of alarm system and entrance control checks as required by R12-1-539;
6. Records of direct-reading dosimeters, such as pocket dosimeters and electronic personnel dosimeters as required by R12-1-523;
7. Operating and emergency procedures as required by R12-1-522;
8. A report on the most recent calibration of the radiation survey instruments in use at the site as required by R12-1-504;
9. A report on the most recent calibration of each alarm rate meter, and operability check of each pocket dosimeter and electronic personnel dosimeter as required in R12-1-523;
10. Most recent survey record as required by R12-1-533;
11. The shipping papers for the transportation of radioactive material required by 10 CFR 71.5, 2003 edition, published January 1, 2003, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency (this incorporation contains no future editions or amendments); and
12. If operating under reciprocity in accordance with R12-1-320, a copy of the NRC or Agreement State license authorizing the use of radioactive materials.

Historical Note

New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

R12-1-541. Repealed

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Amended effective August 10, 1994 (Supp. 94-3). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Section repealed by final rulemaking at 11 A.A.R. 978, effective April 3, 2005 (05-1).

R12-1-542. Repealed

Historical Note

Adopted effective April 2, 1990 (Supp. 90-2). Repealed effective August 10, 1994 (Supp. 94-3). New Section made by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Section repealed by final rulemaking at 11 A.A.R. 978, effective April 3, 2005
(05-1).

Appendix A. Repealed

Historical Note

Adopted effective June 30, 1977 (Supp. 77-3). Amended effective December 20, 1985 (Supp. 85-6). Repealed effective April 2, 1990 (Supp. 90-2).

R12-1-543. Training

A. A licensee shall not allow an individual to act as a radiographer until the individual has received training in the subjects in subsection (G), has participated in a minimum of two months of on-the-job training, and is certified through a radiographer certification program by a independent certifying organization in accordance with the criteria specified in Appendix A.

1. A licensee shall provide the Agency with proof of an individuals's certification and a written request that the individual be added to a license as a certified radiographer.
2. A licensee shall maintain proof of certification at the job site where a radiographer is performing field radiography.
3. A licensee that employs certified radiographers in Arizona shall ensure that:
   a. Each radiographer has obtained initial certification within the last five years, and
   b. An uncertified radiographer works only as a radiographer's assistant until certified.
4. A radiographer shall recertify every five years by:
   a. Taking an approved radiography certification examination in accordance with this subsection; or
   b. Providing written evidence that the radiographer is active in the practice of industrial radiography and has participated in continuing education during the previous five-year period.
5. If an individual cannot provide the written evidence required in subsection (4)(b), the individual shall retake the certification examination.

6. A radiographer shall provide the licensee with proof of certification in the form of a card issued by the certifying organization that contains:
   a. A picture of the certified radiographer,
   b. The radiographer's certification number,
   c. The date the certification expires, and
   d. The radiographer's signature.

B. A licensee shall not allow an individual to act as a radiographer until the individual:

1. Has received copies of and instruction in the requirements of this Article; applicable Sections of Articles 4 and 10 and R12-1-107; applicable DOT regulations in 10 CFR 71, January 1, 2003 edition, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference, contains no future editions or amendments, and is on file with Agency; the Agency license or licenses under which the radiographer will perform industrial radiography; and the licensee's operating and emergency procedures;
2. Has demonstrated an understanding of the licensee's license and operating and emergency procedures by successfully completing a written or oral examination that covers the relevant material;
3. Has received training in:
   a. Use of the licensee's radiographic exposure devices and sealed sources,
   b. Daily inspection of devices and associated equipment, and
   c. Use of radiation survey instruments; and
4. Has demonstrated an understanding of the use of radiographic exposure devices, sources, survey instruments, and associated equipment described in subsection (B)(3) by successfully completing a practical examination covering this material.

C. A licensee shall not allow an individual to act as a radiographer's assistant until the individual:

1. Has received copies of and instruction in the requirements of this Article; applicable Sections of Articles 4 and 10 and R12-1-107; applicable DOT regulations in 10 CFR 71, January 1, 2003 edition, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference, contains no future editions or amendments, and is on file with Agency; the Agency license or licenses under which the radiographer's assistant will perform industrial radiography; and the licensee's operating and emergency procedures;
2. Has developed competence to use, under the personal supervision of the radiographer, the licensee's radiographic exposure devices, sealed sources, associated equipment, and radiation survey instruments; and
3. Has demonstrated understanding of the instructions provided under subsection (C)(1) by successfully completing a written test on the subjects covered and has demonstrated competence using the hardware described in subsection (C)(2) by successfully completing a practical examination.

D. A licensee shall provide refresher safety training for each radiographer and radiographer's assistant at intervals not to exceed 12 months.

E. Unless an individual serves as both a radiographer and an RSO, the RSO or the RSO's designee shall design and implement an inspection program to examine the job performance of each radiographer and radiographer's assistant and to ensure that the Agency's rules and license requirements, and the licensee's operating and emergency procedures are followed. The inspection program shall:

1. Include observation of the performance of each radiographer and radiographer's assistant during an actual industrial radiographic operation, at intervals that do not exceed six months; and
2. If a radiographer or a radiographer's assistant has not participated in an industrial radiographic operation for more than six months, the radiographer shall demonstrate knowledge of the training requirements in subsection (B)(3) and the radiographer's assistant shall demonstrate knowledge of the training requirements of subsection (C)(2) by a practical examination before participating in a radiographic operation.

F. A licensee shall maintain records of the training required in this Section including certification documents, written and practical examinations, refresher safety training documents, and inspection documents, in accordance with subsection (I).

G. A licensee shall include the following subjects in the training required under subsection (A):

1. Fundamentals of radiation safety, including:
   a. Characteristics of gamma radiation,
   b. Units of radiation dose and quantity of radioactivity,
   c. Hazards of exposure to radiation,
   d. Levels of radiation from licensed material, and
   e. Methods of controlling radiation dose (time, distance, and shielding);
2. Radiation detection instruments, including:
   a. Use, operation, calibration, and limitations of radiation survey instruments;
   b. Survey techniques; and
   c. Use of personnel monitoring equipment;
3. Equipment topics, including:
   a. Operation and control of radiographic exposure equipment, use of remote handling equipment, and use of storage containers, using pictures or models of source assemblies (pigtails);
   b. Storage, control, and disposal of licensed material; and
   c. Inspection and maintenance of equipment;
4. The requirements of pertinent Agency rules; and
5. Case histories of accidents in radiography.

H. A licensee shall maintain records of radiographer certification in accordance with subsection (I)(1) and provide proof of certification as required in subsection (A)(1).

I. A licensee shall maintain the following records for three years after each record is made:

1. Records of training for each radiographer and each radiographer's assistant. For radiographers, the records shall include radiographer certification documents and verification of certification status. All records shall include copies of written tests, dates of oral and practical examinations, and names of individuals who conducted and took the oral and practical examinations; and
2. Records of annual refresher safety training and semi-annual inspections of job performance for each radiographer and each radiographer's assistant. The records for the annual refresher safety training shall list topics discussed during training, the date of training, and names of each instructor and attendee. For inspections of job performance, the records shall include a list of the items checked during the inspection and any non-compliance observed by the RSO.

Historical Note

New Section made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

Appendix A. Standards for Organizations that Provide Radiography Certification

****Note: For purposes of this Article an "independent certifying organization" means an organization that meets all of the criteria in this Appendix.

I. Requirements for an Organization that Provides Radiographer Certification

To qualify to provide radiographer certification an organization shall:

A. Be a society or association, with members who participate in, or have an interest in, the field of industrial radiography;

B. Not restrict membership because of race, color, religion, sex, age, national origin, or disability;

C. Have a certification program that is open to nonmembers, as well as members;

D. Be an incorporated, nationally recognized organization that is involved in setting national standards of practice within its fields of expertise;

E. Have a staff comparable to other nationally recognized organizations, a viable system for financing its operations, and a policy-and decision-making review board;

F. Have a set of written, organizational by-laws and policies that address conflicts of interest and provide a system for monitoring and enforcing the by-laws and policies;

G. Have a committee, with members who can carry out their responsibilities impartially, review and approve the certification guidelines and procedures, and advise the organization's staff in implementing the certification program;

H. Have a committee, with members who can carry out their responsibilities impartially, review complaints against certified individuals and determine sanctions;

***I.** Have written procedures describing all aspects of the organization's certification program;

J. Maintain records of the current status of each individual's certification and administration of the certification program;

K. Have procedures to ensure that certified individuals are provided due process with respect to administration of the certification program, including a process for becoming certified and a process for imposing sanctions against certified individuals;

L. Have procedures for proctoring examinations and qualifying proctors. The organization, through these procedures, shall ensure that an individual who proctors an examination is not employed by the same company or corporation (or a wholly-owned subsidiary of the company or corporation) that employs an examinee;

M. Exchange information about certified individuals with the Agency, other independent certifying organizations, the NRC, or Agreement States and allow periodic review of its certification program and related records; and

N. Provide a description to the Agency of its procedures for choosing examination sites and providing a favorable examination environment.

II. Requirements for a Certification Program

An independent certifying organization shall ensure that its certification program:

***A.** Requires an applicant for certification to:

1. Obtain training in the subjects listed in R12-1-543(G) or equivalent NRC or Agreement State regulations, and
2. Satisfactorily complete a written examination that covers these subjects;

B. Requires an applicant for certification to provide documentation demonstrating that the applicant has:

1. Received training in the subjects listed in R12-1-543(G) or equivalent NRC or Agreement State regulations;
2. Satisfactorily completed the on-the-job training required in R12-1-543(A); and
3. Received verification by an Agreement State or a NRC licensee that the applicant has demonstrated the capability of independently working as a radiographer;

C. Provides procedures that protect examination questions from disclosure;

D. Provides procedures for denying certification to an applicant and revoking, suspending, and reinstating a certificate;

E. Provides a certification period that is not less than three years or more than five years, procedures for renewing certifications and, if the procedures allow renewals without examination, a system for assessing evidence of recent full-time employment and annual refresher training; and

***F.** Provides a timely response to inquiries, by telephone or letter, from members of the public, about an individual's certification status.

III. Requirements for a Written Examination

An independent certifying organization shall ensure that its examination:

A. Is designed to test an individual's knowledge and understanding of the subjects listed in R12-1-543(G);
B. Is written in a multiple-choice format; and
C. Has psychometrically valid questions drawn from a question bank and based on the material in R12-1-543(G).

Historical Note

New Appendix made by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2).

ARTICLE 7. MEDICAL USES OF RADIOACTIVE MATERIAL

R12-1-701. License Required

A. A person may manufacture, produce, acquire, receive, possess, prepare, use, or transfer radioactive material for medical use only in accordance with a specific license issued by the Agency, the NRC, or another Agreement State, or as allowed in subsection (B)(1) or (B)(2)

.

B. A specific license is not needed for an individual who:
1. Receives, possesses, uses, or transfers radioactive material in accordance with the rules in this Chapter under the supervision of an authorized user as provided in R12-1-706, unless prohibited by license condition; or
2. Prepares unsealed radioactive material for medical use in accordance with the rules in this Chapter under the supervision of an authorized nuclear pharmacist or authorized user.

Historical Note

Former Rule Section G.1. Former Section R12-1-701 repealed, new Section R12-1-701 adopted effective June 30, 1977 (Supp. 77-3). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (07-1).

R12-1-702. Definitions

"Authorized medical physicist" means an individual who meets the requirements in R12-1-711. For purposes of ensuring that personnel are adequately trained, an authorized medical physicist is a "qualified expert" as defined in Article 1.

"Authorized nuclear pharmacist" means a pharmacist who meets the requirements in R12-1-712.

"Authorized user" means a physician, dentist, or podiatrist who meets the requirements in R12-1-719, R12-1-721, R12-1-723, R12-1-727, R12-1-728, or R12-1-744.

"Brachytherapy" means a method of radiation therapy in which a sealed source or group of sealed sources is utilized to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary, intraluminal, or interstitial application.

"CT" means computerized tomography.

"High dose rate afterloading brachytherapy" means the treating of human disease using the radiation from a radioactive sealed source containing more than 1 curie of radioactive material. The radioactive material is introduced into a patient's body using a device that allows the therapist to indirectly handle the radiation source during the treatment. For purposes of the requirements in this Article "pulse dose rate afterloading brachytherapy" is included in this definition.

"Human research subject" means an individual who is or becomes a participant in research overseen by an IRB, either as a recipient of the test article or as a control. A subject may be either a healthy human, in research overseen by the RDRC, or a patient.

"Institutional review board" (IRB) is defined in R12-1-704(B).

"Manual brachytherapy" means a type of brachytherapy in which the brachytherapy sources (e.g., seeds, ribbons) are manually placed topically on or inserted either into the body cavities that are in close proximity to a treatment site or directly into the tissue volume.

"Medical event" means an event that meets the criteria in R12-1-745.

"Medical institution" means an organization in which several medical disciplines are practiced.

"Medical use" means the intentional internal or external administration of radioactive material, or the radiation from it, to an individual under the supervision of an authorized user.

"Nuclear cardiology" means the diagnosis of cardiac disease using radiopharmaceuticals.

"PET" means positron emission tomography.

"Physically present" means that a supervising medical professional is in proximity to the patient during a radiation therapy procedure so that immediate emergency orders can be communicated to ancillary staff, should the occasion arise.

"Prescribed dosage" means the specified activity or range of activity of unsealed radioactive material as documented:

In a written directive; or
In accordance with the directions of the authorized user for procedures performed in accordance with the uses described in Exhibit A.

"Prescribed dose" means:

For gamma stereotactic radiosurgery, the total dose as documented in the written directive;
For teletherapy, the total dose and dose per fraction as documented in the written directive;
For manual brachytherapy, either the total source strength and exposure time or the total dose, as documented in the written directive; or
For remote brachytherapy afterloaders, the total dose and dose per fraction as documented in the written directive.

"Radiation Safety Officer" (RSO) for purposes of this Article, and in addition to the definition in Article 1 means an individual who:

Meets the requirements in R12-1-710, or
Is identified as a radiation safety officer on:
A specific medical use license issued by the NRC or Agreement State; or
A medical use permit issued by a NRC master material license.

"Radioactive drug" is defined in 21 CFR 310.3(c) and includes a "radioactive biological product" as defined in 21 CFR 600.3, April 1, 2006, both of which are incorporated by reference, published by the Office of Federal Register, National Archives and Records Administration, Washington, DC 20408, and on file with the Agency. These incorporated materials contain no future editions or amendments.

"Radioactive Drug Research Committee" (RDRC) means the committee established by the licensee to review all basic research involving the administration of a radioactive drug to human research subjects, taken from 21 CFR 361.1, April 1, 2006, which is incorporated by reference, published by the Office of Federal Register, National Archives and Records Administration, Washington, DC 20408, and on file with the Agency. This incorporation by reference contains no future editions or amendments. Research is considered basic research if it is done for the purpose of advancing scientific knowledge, which includes basic information regarding the metabolism (including kinetics, distributions, dosimetry, and localization) of a radioactive drug or regarding human physiology, pathophysiology, or biochemistry. Basic research is not intended for immediate therapeutic or diagnostic purposes and is not intended to determine the safety and effectiveness of a radioactive drug in humans.

"Radiopharmaceutical" means any drug that exhibits spontaneous disintegration of unstable nuclei with the emission of nuclear particles or photons and includes any nonradioactive reagent kit or nuclide generator that is intended to be used in the preparation of any such substance. For purposes of this Article radiopharmaceutical is equivalent to radioactive drug.

"Remote afterloading brachytherapy device" means a device used in radiation therapy that allows the authorized user to insert, from a remote location, a radiation source into an applicator that has been previously inserted in an individual requiring treatment.

"Sealed Source and Device Registry" means the national registry that contains all the registration certificates, generated by both NRC and the Agreement States, that summarize the radiation safety information for the sealed sources and devices and describe the licensing and use conditions approved for the product.

"Stereotactic radiosurgery" means the use of external radiation in conjunction with a stereotactic guidance device to very precisely deliver a dose.

"Teletherapy" means therapeutic irradiation in which the sealed source of radiation is at a distance from the body.

"Therapeutic dosage" means a dosage of unsealed radioactive material that is intended to deliver a

radiation dose to a patient or human research subject for palliative or curative treatment.

"Therapeutic dose" means a radiation dose delivered from a source containing radioactive material to a patient or human research subject for palliative or curative treatment.

"Treatment site" means the anatomical description of the tissue intended to receive a radiation dose, as described in a written directive.

"Unit dosage" means a dosage prepared for medical use for administration as a single dosage to a patient or human research subject without any further manipulation of the dosage after it is initially prepared.

"Written directive" means an authorized user's written order for the administration of radioactive material or radiation from radioactive material to a specific patient or human research subject, as specified in R12-1-707.

Historical Note

Former Rule Section G.2; Former Section R12-1-702 repealed, new Section R12-1-702 adopted effective June 30, 1977 (Supp. 77-3). Former Section R121-702 renumbered and amended as Section R12-1-703, new Section R12-1-702 adopted effective December 20, 1985 (Supp. 85-6). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-703. License for Medical Use of Radioactive Material

A. In addition to the requirements set forth in R12-1-309, the Agency shall issue a specific license for medical use of radioactive material if:

1. The applicant has appointed a radiation safety committee, meeting the requirements in R12-1-705, that will oversee the use of licensed material throughout the licensee's facility and associated radiation safety program;
2. The applicant possesses facilities for the clinical care of patients or human research subjects; and
3. The individual designated on the application as an authorized user has met the training and experience requirements in R12-1-719, R12-1-721, R12-1-723, R12-1-727, R12-1-728, or R12-1-744.

B. Specific licenses to individual authorized users for medical use of radioactive material:
1. The Agency shall approve an application by a prospective individual authorized user or prospective group of authorized users for a specific license governing the medical use of radioactive material if:
   a. The applicant satisfies the general requirements in R12-1-309;
   b. The application is for use in the applicant's practice at an office outside of a medical institution;
   c. The applicant meets the training and experience requirements in subsection (A)(3); and
   d. The applicant has a radiation safety committee, if the criteria in R12-1-705 are applicable and a RDRC, if the use is basic research involving humans.
2. The Agency shall not approve an application by a prospective authorized user or group of prospective authorized users for a specific license to receive, possess, or use radioactive material on the premises of a medical institution unless:
   a. The use of radioactive material is limited to:
      i. The administration of radiopharmaceuticals for diagnostic or therapeutic purposes;
      ii. The performance of diagnostic studies on patients or human research subjects to whom a radiopharmaceutical has been administered;
      iii. The performance of in vitro diagnostic studies; or
      iv. The calibration and quality control checks of radioactive assay instrumentation, radiation safety instrumentation, or diagnostic instrumentation;
   b. The authorized user brings the radioactive material and removes the radioactive material upon departure; and
   c. The medical institution does not hold a radioactive materials license under subsection (A).

C. Specific licenses for certain groups of medical uses of radioactive material:
1. The Agency shall approve an application for a specific license under subsections (A) or (B), for any medical use or uses of radioactive material specified in Groups 100 through 1,000, in Exhibit A of this Article, for all of the materials within each group requested in the application if:
   a. The applicant satisfies the requirements of subsections (A) and (B);
   b. Each person involved in the preparation and use of the radioactive material is an authorized user, an authorized nuclear pharmacist, or certified as a nuclear medicine technologist by the Medical Radiologic Technology Board of Examiners (MRTBE);
   c. The applicant's radiation detection and measuring instrumentation is adequate for conducting the procedures involved in the authorized uses selected from Group 100 through Group 1,000; and
   d. The applicant's radiation safety operating procedures are adequate for handling and disposal of the radioactive material involved in the authorized uses selected from Group 100 through Group 1,000.
2. Any licensee who is authorized to use radioactive material:
   a. In unsealed form under Groups 100, 200, 300 or 1,000 listed in Exhibit A of this Article, shall do so using radiopharmaceuticals prepared in accordance with R12-1-311(I); or
   b. In sealed source form under Groups 400, 500, 600, or 1,000 listed in Exhibit A of this Article, shall do so using sealed sources that have been manufactured and distributed in accordance with R12-1-311(K);
   c. In any form under group 1,000 listed in Exhibit A of this Article, shall do so using sealed and unsealed sources that have been manufactured and distributed in accordance with the specific license issued by the Agency.
3. Any licensee who is licensed according to subsection (C)(1), for one or more of the medical use groups in Exhibit A also is authorized to use radioactive material under the general license in R12-1-306(F) for the specified in vitro uses without filing Form ARRA-9 as required by R12-1-306(F)(2); provided, that the licensee is subject to the other provisions of R12-1-306(F).

D. In addition to the other license application requirements in this Section, each applicant shall include in the radiation safety program required under subsection (A)(1) a system for ensuring that each syringe and vial that contains unsealed radioactive material is labeled in accordance with R12-1-431(D).

Historical Note

Former Rule Section G.3; Former Section R12-1-703 repealed, new Section R12-1-703 adopted effective June 30, 1977 (Supp. 77-3). Former Section R12-1-703 renumbered and amended as Section R12-1-704, former Section R12-1-702 renumbered and amended as Section R12-1-703 effective December 20, 1985 (Supp. 85-6). Section repealed and new Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-704. Provisions for the Protection of Human Research Subjects

A. A licensee may conduct basic research involving human research subjects and research involving patients receiving investigational new drugs or devices if the licensee only uses the radioactive material specified on the license for the uses authorized on the license.

B. If research is conducted, funded, supported, or regulated by a federal agency that has implemented the federal Policy for Protection of Human Research Subjects (45 CFR 46, June 23, 2005, which is incorporated by reference, published by the Office of Federal Register, National Archives and Records Administration, Washington, DC 20408, on file with the Agency, and contains no future editions or amendments), the licensee shall:
1. Obtain review and approval of the research from an Institutional Review Board (IRB); and
2. Obtain informed consent from the human research subject.

C. If research will not be conducted, funded, supported, or regulated by a federal agency that has implemented the federal policy in subsection (B), a medical licensee shall, before conducting research, apply for and receive a specific amendment to its use license. The amendment request shall include a written commitment that the licensee will, before conducting research:
1. Obtain review and approval of the research from an IRB, as defined and described in the federal policy; and
2. Obtain informed consent from the human research subject.

D. Before conducting the research described in subsection (A) the licensee shall apply to the Agency for and receive a specific amendment to its medical use license. The amendment request shall include a written commitment that the licensee will, before conducting research:
1. Obtain any review and approval required by this Section, and
2. Obtain informed consent from the human research subject if applicable.

E. Nothing in this Section relieves a licensee from complying with the other requirements in this Article.

Historical Note

Repealed effective June 30, 1977 (Supp. 77-3). Former Section R12-1-703 renumbered and amended as Section R12-1-704 effective December 20, 1985 (Supp. 85-6). Section repealed and new Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-705. Authority and Responsibilities for the Radiation Protection Program

A. A licensee's management shall appoint in writing a radiation safety officer, who agrees, in writing, to be responsible for implementing the radiation protection program. The licensee, through the RSO, shall ensure that radiation safety activities are being performed in accordance with licensee-approved procedures and regulatory requirements. Each time the RSO is changed, the licensee shall provide to the Agency within 30 days an amendment request and a copy of the correspondence between the licensee's management and the candidate, accepting the position of RSO.

B. Licensees that are authorized for two or more different types of uses of radioactive material listed in Groups 300, 400, 600, and 1,000, or two or more types of units under group 600 or 1,000, shall establish a Radiation Safety Committee (RSC) to oversee all uses of radioactive material permitted by the license. At a minimum, the RSC shall include an authorized user of each type of use permitted by the license, the RSO, a representative of the nursing service, and a representative of management who is neither an authorized user nor a RSO.

C. If a licensee or applicant is not a health care institution and is unable to meet the RSC membership requirements in subsection (B), the licensee or applicant may request an exemption in accordance with A.R.S. § 30-654(B)(13). The request for exemption shall be made to the Agency in writing and list the reasons why the health care institution is unable to meet the requirements.

D. A licensee shall ensure that the RSC meets, at a minimum, on an annual basis and maintain the RSC meeting minutes for Agency review for three years after the date of the RSC meeting.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-706. Supervision

A. For purposes of this rule, "supervision" means the exercise of control over or direction of the use of radioactive material in the practice of medicine by an authorized user named on a radioactive material license. Supervision does not require a supervising physician's constant physical presence if the supervising physician can be easily contacted by radio, telephone, or telecommunication.

B. A physician may use radioactive material if the person is licensed by the Arizona Medical Board or Board of Osteopathic Examiners in Medicine and Surgery and is listed as an authorized user on the Arizona radioactive material license under which the radioactive material is obtained.

C. A licensee that permits the receipt, possession, use, or transfer of radioactive material by an individual under the supervision of an authorized user, shall:
1. Instruct the supervised individual in the licensee's written radiation protection procedures, written directive procedures, rules, and license conditions with respect to the use of radioactive material; and
2. Require the supervised individual to follow the instructions of the supervising authorized user for medical uses of radioactive material, written radiation protection procedures established by the licensee, written directive procedures, rules, and license conditions with respect to the medical use of radioactive material.

D. A licensee that permits the preparation of radioactive material for medical use by an individual who is supervised by an authorized nuclear pharmacist or a physician, who is an authorized user, shall:
1. Instruct the supervised individual in the preparation of radioactive material for medical use, as appropriate to that individual's involvement with radioactive material; and
2. Require the supervised individual to follow the instructions of the supervising authorized user or authorized nuclear pharmacist regarding the preparation of radioactive material for medical use, written radiation protection procedures established by the licensee, the rules, and license conditions.

E. A licensee that permits supervised activities under subsections (C) and (D) is responsible for the acts and omissions of the supervised individual.

F. A limited-service nuclear pharmacy licensee shall dispense radiopharmaceuticals only to a physician listed as an authorized user on a valid radioactive material license issued by the Agency, an Agreement State, or the NRC. For purposes of this rule "limited-service nuclear pharmacy" is defined in R4-23-110.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-707. Written Directives

A. A licensee shall ensure that a written directive is dated and signed by an authorized user before the administration of I-131 sodium iodide greater than 1.11 MBq (30 microcuries (µCi)), any therapeutic dosage of unsealed radioactive material or any therapeutic dose of radiation from radioactive material. If, because of the emergent nature of the patient's condition, a delay in order to provide a written directive would jeopardize the patient's health, an oral directive is acceptable. The information contained in the oral directive shall be documented as soon as possible in writing in the patient's record. A written directive shall be prepared within 48 hours of the oral directive.

B. A written directive shall contain the patient or human research subject's name and the following information:

1. For any administration of quantities greater than 1.11 MBq (30 µCi) of sodium iodide I-131: the dosage;
2. For an administration of a therapeutic dosage of unsealed radioactive material other than sodium iodide I-131: the radiopharmaceutical, dosage, and route of administration;
3. For gamma stereotactic radiosurgery: the total dose, treatment site, and values for the target coordinate settings per treatment for each anatomically distinct treatment site;
4. For teletherapy: the total dose, dose per fraction, number of fractions, and treatment site;
5. For high dose-rate remote afterloading brachytherapy: the radionuclide, treatment site, dose per fraction, number of fractions, and total dose; or
6. For all other brachytherapy, including low, medium, and pulsed dose rate remote afterloaders:
   a. Before implantation: treatment site, the radionuclide, and dose; and
   b. After implantation but before completion of the procedure: the radionuclide, treatment site, number of sources, and total source strength and exposure time (or the total dose).

C. The licensee shall retain a copy of the written directive for three years after creation of the record.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-708. Procedures for Administrations Requiring a Written Directive

For any administration requiring a written directive, the licensee shall develop, implement, and maintain written procedures to provide high confidence that:

1. The patient's or human research subject's identity is verified before each administration; and
2. Each administration is in accordance with the written directive.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-709. Sealed Sources or Devices for Medical Use

A licensee may only use:

1. Sealed sources, including teletherapy sources, or devices manufactured, labeled, packaged, and distributed in accordance with a license issued under Article 3 of this Chapter, equivalent regulations of the NRC or equivalent requirements of an Agreement State; or
2. Sealed sources or devices noncommercially transferred from another medical licensee; or
3. Teletherapy sources manufactured and distributed in accordance with a license issued by the Agency, the NRC, or another Agreement State.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-710. Radiation Safety Officer Training

A. A licensee shall require an individual fulfilling the responsibilities of the radiation safety officer, described in R12-1-705, to be an individual who:

1. Is certified by a specialty board whose certification process includes all of the requirements in subsection (A)(2) and whose certification has been recognized by the Agency, NRC, or an Agreement State. To have its certification process recognized, a specialty board shall require all candidates for certification to:
   a. Meet the following minimum requirements:

i. Hold a bachelor's or graduate degree from an accredited college or university in physical science or engineering or biological science with a minimum of 20 college credits in physical science;
ii Have five or more years of professional experience in health physics (graduate training may be substituted for no more than two years of the required experience) including at least three years in applied health physics; and
iii. Pass an examination administered by diplomates of the specialty board, which evaluates knowledge and competence in radiation physics and instrumentation, radiation protection, mathematics pertaining to the use and measurement of radioactivity, radiation biology, and radiation dosimetry; or

b. Meet the following minimum requirements:
i. Hold a master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university;
ii. Have two years of full-time practical training and/or supervised experience in medical physics;
(1) Under the supervision of a medical physicist who is certified in medical physics by a specialty board recognized by the Commission or an Agreement State; or
(2) In clinical nuclear medicine facilities providing diagnostic and/or therapeutic services under the direction of physicians who meet the requirements for authorized users qualified under section R12-1-710(B), R12-1-721, or R12-1-723;
iii. Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in clinical diagnostic radiological or nuclear medicine physics and in radiation safety; or

2. Has completed a structured educational program consisting of both:
a. 200 hours of didactic and laboratory training in the following areas:
i. Radiation physics and instrumentation;
ii. Radiation protection;
iii. Mathematics pertaining to the use and measurement of radioactivity;
iv. Radiation biology; and
v. Radiation dosimetry; and

b. One year of full-time radiation safety experience under the supervision of the individual identified as the radiation safety officer on an Agency, NRC, or an Agreement State license or permit issued by a NRC master material licensee that authorizes similar type(s) of use(s) of radioactive material involving the following:
i. Shipping, receiving, and performing related radiation surveys;
ii. Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides;
iii. Securing and controlling radioactive material;
iv. Using administrative controls to avoid mistakes in the administration of radioactive material;
v. Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures;
vi. Using emergency procedures to control radioactive material; and
vii. Disposing of radioactive material; or

c. Has obtained written certification, signed by a preceptor radiation safety officer, that the individual has satisfactorily completed the requirements in subsection (A)(2)(a) and (A)(2)(b) and has achieved a level of radiation safety knowledge sufficient to function independently as a radiation safety officer for a medical use licensee; or

3. Is an authorized user, authorized medical physicist, or authorized nuclear pharmacist identified on the licensee's license and has experience with the radiation safety aspects of similar types of use of radioactive material for which the individual has radiation safety officer responsibilities.

B. Exceptions.
1. An individual identified as a radiation safety officer on an Agency, a NRC, or an Agreement State license or a permit issued by the NRC or an Agreement State broad scope licensee or master material license permit or by a master material license permittee of broad scope before the effective date of these rules need not comply with the training requirements in subsections (A)(1) through (A)(3).
2. A physician, dentist, or podiatrist identified as an authorized user for the medical use of radioactive material on a license issued by the Agency, NRC, or Agreement State, a permit issued by a NRC master material licensee, a permit issued by an Agency, NRC, or Agreement State broad scope licensee, or a permit issued by a NRC master material license broad scope permittee before the effective date of these rules need not comply with the training requirements in this Article.

C. The training and experience required in this Section shall be obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

D. Individuals who, under subsection (B), need not comply with training requirements described in this Section may serve as preceptors for, and supervisors of, applicants seeking authorization on Agency licenses for the same uses for which these individuals are authorized.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-711. Authorized Medical Physicist Training

A. A licensee shall require an authorized medical physicist to be an individual who:

1. Is certified by a specialty board whose certification process includes all of the training and experience requirements in subsection (A)(3)(b) and (A)(3)(c) and whose certification has been recognized by the Agency, NRC or an Agreement State; or
2. Training requirements.
   a. Hold a master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university;
   b. Have two years of full-time practical training and/or supervised experience in medical physics:
      i. Under the supervision of a medical physicist who is certified in medical physics by a specialty board recognized by the NRC or an Agreement State; or
      ii. In clinical radiation facilities providing high-energy, external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services under the direction of physicians who meet the requirements for authorized users in R12-1-710, R12-1-719, R12-1-721, R12-1-723, R12-1-727, R12-1-728, or R12-1-744; and
   c. Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in clinical radiation therapy, radiation safety, calibration, quality assurance, and treatment planning for external beam therapy, brachytherapy, and stereotactic radiosurgery; or
3. Training requirements alternative.
   a. Holds a master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university; and has completed one year of full-time training in medical physics and an additional year of full-time work experience under the supervision of an individual who meets the requirements for an authorized medical physicist for the type(s) of use for which the individual is seeking authorization. This training and work experience must be conducted in clinical radiation facilities that provide high-energy, external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services and must include:
      i. Performing sealed source leak tests and inventories;
      ii. Performing decay corrections;
      iii. Performing full calibration and periodic spot checks of external beam treatment units, stereotactic radiosurgery units, and remote afterloading units as applicable; and
      iv. Conducting radiation surveys around external beam treatment units, stereotactic radiosurgery units, and remote afterloading units as applicable; and
   b. Has obtained written attestation that the individual has satisfactorily completed the requirements in subsection (A)(3)(c) and (A)(2)(a) and (A)(2)(b) and (A)(3)(c), or (A)(3)(a) and (A)(3)(c); and has achieved a level of competency sufficient to function independently as an authorized medical physicist for each type of therapeutic medical unit for which the individual is requesting authorized medical physicist status. The written attestation must be signed by a preceptor authorized medical physicist who meets the requirements in section, or equivalent Agreement State requirements for an authorized medical physicist for each type of therapeutic medical unit for which the individual is requesting authorized medical physicist status; and
   c. Has training for the type(s) of use for which authorization is sought that includes hands-on device operation, safety procedures, clinical use, and the operation of a treatment planning system. This training requirement may be satisfied by satisfactorily completing either a training program provided by the vendor or by training supervised by an authorized medical physicist authorized for the type(s) of use for which the individual is seeking authorization.

B. Exceptions. An individual identified as a teletherapy or medical physicist on an Agency, a NRC, or an Agreement State license or a permit issued by the NRC or an Agreement State broad scope licensee or master material license permit or by a master material license permittee of broad scope before the effective date of these rules need not comply with the training requirements in subsection (A).

C. The training and experience required in this Section shall be obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

D. Individuals who, under subsection (B), need not comply with training requirements described in this Section may serve as preceptors for, and supervisors of, applicants seeking authorization on Agency licenses for the same uses for which these individuals are authorized.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-712. Authorized Nuclear Pharmacist Training

A. A licensee shall require the authorized nuclear pharmacist to be a pharmacist who:
1. Is certified as a nuclear pharmacist by a specialty board whose certification process has been recognized by the Agency, NRC, or an Agreement State. To have its certification process recognized, a specialty board shall require all candidates for certification to:
   a. Have graduated from a pharmacy program accredited by the American Council on Pharmaceutical Education (ACPE) or have passed the Foreign Pharmacy Graduate Examination Committee (FPGEC) examination;
   b. Hold a current, active license to practice pharmacy in Arizona;
   c. Provide evidence of having acquired at least 4000 hours of training/experience in nuclear pharmacy practice. Academic training may be substituted for no more than 2000 hours of the required training and experience; and
   d. Pass an examination in nuclear pharmacy administered by diplomates of the specialty board, that assesses knowledge and competency in procurement, compounding, quality assurance, dispensing, distribution, health and safety, radiation safety, provision of information and consultation, monitoring patient outcomes, research and development; or

2. Has completed 700 hours in a structured educational program consisting of both:
   a. 200 hours of classroom and laboratory training in the following areas:
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radioactivity;
      iv. Chemistry of radioactive material for medical use; and
      v. Radiation biology; and
   b. Supervised practical experience in a nuclear pharmacy involving:
      i. Shipping, receiving, and performing related radiation surveys;
      ii. Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and, if appropriate, instruments used to measure alpha- or beta-emitting radionuclides;
      iii. Calculating, assaying, and safely preparing dosages for patients or human research subjects;
      iv. Using administrative controls to avoid medical events in the administration of radioactive material; and
      v. Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures; and
3. Has obtained written attestation, signed by a preceptor authorized nuclear pharmacist, that the individual has satisfactorily completed the requirements in subsection (A)(2) and has achieved a level of competency sufficient to function independently as an authorized nuclear pharmacist.

B. Exceptions. An individual identified as a nuclear pharmacist on an Agency, a NRC or an Agreement State license or a permit issued by the NRC or an Agreement State broad scope licensee or master material license permit or by a master material license permittee of broad scope before the effective date of these rules need not comply with the training requirements in subsections (A)(1) through (A)(3).

C. The training and experience required in this Section shall be obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

D. Individuals who, under subsection (B), need not comply with training requirements described in this Section may serve as preceptors for, and supervisors of, applicants seeking authorization on Agency licenses for the same uses for which these individuals are authorized.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-713. Determination of Prescribed Dosages, and Possession, Use, and Calibration of Instruments

A. A licensee shall determine and record the activity of each dosage before medical use.

B. For a unit dosage, this determination shall be made by:
1. Direct measurement of radioactivity; or
2. Decay correction, based on the activity or activity concentration determined by
:
   a. A manufacturer or preparer licensed under R12-1-311 or equivalent NRC or Agreement State requirements; or
   b. An Agency, NRC, or Agreement State licensee for use in research in accordance with a Radioactive Drug Research Committee-approved protocol or an Investigational New Drug (IND) protocol accepted by FDA or;
   c. A PET radioactive drug producer licensed under R12-1-311 or equivalent NRC or Agreement State requirements.

C. For other than unit dosages, this determination shall be made by:
1. Direct measurement of radioactivity;
2. Combination of measurement of radioactivity and mathematical calculations; or
3. Combination of volumetric measurements and mathematical calculations based on the measurement made by a manufacturer or preparer licensed under R12-1-311, or equivalent NRC or Agreement State requirements.

D. Unless otherwise directed by the authorized user, a licensee may not use a dosage if the dosage does not fall within the prescribed dosage range or if the dosage differs from the prescribed dosage by more than 20 percent.

E. A licensee shall retain a record of the dosage determination required by this Section for Agency inspection for three years.

F. For direct measurements performed in accordance with subsection (B)(1), a licensee shall possess and use instrumentation to measure the activity of the dosage before it is administered to each patient or human research subject.

G. A licensee shall calibrate the instrumentation required in subsection (F) in accordance with nationally recognized standards, the manufacturer's instructions, or the following procedures.
1. The procedures that may be followed are:
   a. Check each dose calibrator for constancy with a dedicated check source at the beginning of each day of use;
   b. Test each dose calibrator for accuracy upon installation and at least annually thereafter by assaying at least two sealed sources containing different radionuclides whose activity the manufacturer has determined within 5 percent of its stated activity, whose activity is at least 10 microcuries for radium-226 and 50 microcuries for any other photon-emitting radionuclide, and at least one of which has a principal photon energy between 100 keV and 500 keV;
   c. Test each dose calibrator for linearity upon installation and at least quarterly thereafter over a range from the highest dosage that will be administered to a patient or human research subject to 1.1 megabecquerels (30 microcuries);
   d. Test each dose calibrator for geometry dependence upon installation over the range of volumes and volume configurations for which it will be used. The licensee shall keep a record of this test for the duration of the use of the dose calibrator.

e. Perform appropriate checks and tests required by this Section following adjustment or repair of the dose calibrator; and
f. Mathematically correct dosage readings for any geometry or linearity error that exceeds 10 percent if the dosage is greater than 10 microcuries and shall repair or replace the dose calibrator if the accuracy or constancy error exceeds 10 percent.

2. A licensee shall maintain the dose calibrator in accordance with this subsection, even though the dose calibrator is only used to "verify" a dosage prepared by a supplier authorized in subsection (B)(2).
3. A licensee shall maintain on file for Agency review nationally recognized standards or manufacturer's instructions used to maintain a dose calibrator and meet the requirements of subsection (G).

H. A licensee shall calibrate the survey instruments before first use, annually, and following a repair that affects the calibration. A licensee shall:
1. Calibrate all scales with readings up to 10 mSv (1000 mrem) per hour with a radiation source;
2. Calibrate two separated readings on each scale or decade that will be used to show compliance; and
3. Conspicuously note on the instrument the date of calibration.

I. A licensee may not use survey instruments if the difference between the indicated exposure rate and the calculated exposure rate is more than 20 percent.

J. A licensee shall retain records of instrument calibration for three years following the calibration.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-714. Authorization for Calibration, Transmission, and Reference Sources

Any person authorized by R12-1-703 for medical use of radioactive material may receive, possess, and use any of the following radioactive material for check, calibration, transmission, and reference use.
1. Sealed sources, not exceeding 1.11 GBq (30 mCi) each, manufactured and distributed by a person licensed under Article 3 of this Chapter or equivalent NRC or Agreement State regulations.
2. Sealed sources, not exceeding 1.11 GBq (30 mCi) each, redistributed by a licensee authorized to redistribute the sealed sources manufactured and distributed by a person licensed under Article 3 of this Chapter, providing the redistributed sealed sources are in the original packaging and shielding and are accompanied by the manufacturer's approved instructions.
3. Any radioactive material with a half-life not longer than 120 days in individual amounts not to exceed 0.56 GBq (15 mCi).
4. Any radioactive material with a half-life longer than 120 days in individual amounts not to exceed the smaller of 7.4 MBq (200 µCi) or 1000 times the quantities in Article 4, Appendix B of this Chapter.
5. Technetium-99m in amounts as needed.
6. A licensee is limited to five sources of radiation authorized under subsections (1) through (3), unless otherwise specified in the licensee's radioactive material license.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-715. Requirements for Possession of Sealed Sources and Brachytherapy Sources

A. A licensee in possession of any sealed source or brachytherapy source shall follow the radiation safety and handling instructions supplied by the manufacturer.

B. A licensee in possession of a sealed source shall test the source for leakage in accordance with R12-1-417.

C. A licensee in possession of sealed sources or brachytherapy sources, except for gamma stereotactic radiosurgery sources, shall conduct a physical inventory every six months of all sources in its possession. During the period of time between the inventories, the licensee shall add each acquired sealed source to the inventory record and remove from the inventory record each source that leaves the licensee's control.

D. A licensee shall document the inventories conducted under subsection (C) and maintain inventory records in accordance with R12-1-450.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-716. Surveys of Ambient Radiation Exposure Rate, Surveys for Contamination, and PET Radiation Exposure Concerns

A. In addition to the surveys required in Article 4 of this Chapter, a licensee shall survey with a radiation detection survey instrument at the end of each day of use all areas where unsealed radioactive material, requiring a written directive, is prepared for use or administered. In areas of routine use, that are to be released for unrestricted use, a licensee shall perform a survey of the area using an instrument appropriate for detecting contamination before releasing the area for unrestricted use.

B. A licensee shall obtain the services of a person, experienced in the principles of radiation protection and installation design, to design a PET facility and perform a radiation survey when the facility is ready for patient imaging. The licensee shall provide a copy of the installation radiation survey to the Agency within 30 days of imaging the first patient.

C. The licensee shall use engineering controls or shield each PET use area with protective barriers necessary to comply with the radiation exposure limits in R12-1-408 and R12-1-416.
1. At the time of application for a new license or amendment to an existing license, and before imaging of the first patient, the licensee shall provide to the Agency a copy of the installation report signed by the contractor who installed the shielding material recommended by a person meeting the requirements in subsection (B) and a copy of the installation radiation survey required in subsection (B).
2. The licensee shall perform shielding calculations in accordance with *AAPM Task Group 108: PET and PET/CT Shielding Requirements*, in Medical Physics, Vol. 33, No. 1, January 2006, which is incorporated by reference, published by the American Association of Physicists in Medicine, One Physics Ellipse, College Park, MD 20740, and on file with the Agency. This incorporation by reference contains no future editions or amendments. In lieu of these procedures, the licensee may use equivalent calculations approved by the Agency.

D. As part of the annual ALARA review required in R12-1-407, the licensee shall document a review of the PET patient workload and associated change, if any, in public exposure resulting from the installed facility shielding and other public radiation exposure controls in use at the time of the review.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-717. Release of Individuals Containing Radioactive Material or Implants Containing Radioactive Material

A. A licensee may authorize the release from its control of any individual who has been administered unsealed radioactive material or implants containing radioactive material, if the total effective dose equivalent to any other individual from exposure to the released individual is not likely to exceed 5 millisieverts (0.5 rem).

B. A licensee shall provide the released individual, or the individual's parent or guardian, with instructions, including written instructions, on actions recommended to maintain doses to other individuals as low as is reasonably achievable if the total effective dose equivalent to any other individual is likely to exceed 1 millisievert (0.1 rem). If the total effective dose equivalent to a nursing infant or child could exceed 1 millisievert (0.1 rem) assuming there were no interruption of breast-feeding, the instructions shall also include:
1. Guidance on the interruption or discontinuation of breast-feeding; and
2. Information on the potential consequences, if any, of failure to follow the guidance.

C. A licensee shall maintain a record of the basis for authorizing the release of an individual and instructions provided to a breast-feeding female for three years from the date of the administration performed under subsection (A). Nothing in this rule relieves the licensee from the personnel exposure requirements in Article 4.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-718. Mobile Medical Service

A. A licensee providing mobile medical service shall:
1. Obtain a letter signed by the management of each client for which services are rendered that permits the use of radioactive material at the client's address and clearly delineates the authority and responsibility of the licensee and the client;
2. Check instruments used to measure the activity of unsealed radioactive material for proper function before medical use at each client's address or on each day of use, whichever is more frequent. At a minimum, the check for proper function required by this subsection shall include a constancy check;
3. Check survey instruments for proper operation with a dedicated check source before use at each client's address; and
4. Before leaving a client's address, survey all areas of use to ensure compliance with the requirements in Article 4 of this Chapter.

B. A mobile medical service may not have radioactive material delivered from the manufacturer or the distributor to the client unless the client has a license allowing its possession. If applicable, radioactive material delivered to the client shall be received and handled in conformance with the client's license.

C. A licensee providing mobile medical services shall retain the letter required in subsection (A)(1) and the record of each survey required in subsection (A)(4) for three years from the date of the survey.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-719. Training for Uptake, Dilution, and Excretion Studies

A. Except as provided in R12-1-710, the licensee shall require an authorized user of unsealed radioactive material for the uses authorized under Group 100 to be a physician who:
1. Is certified by a medical specialty board whose certification process has been recognized by the NRC or an Agreement State and who meets the requirements in subsection (A)(3). To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. Complete 60 hours of training and experience in basic radionuclide handling techniques and radiation safety applicable to the medical use of unsealed radioactive material for uptake, dilution, and excretion studies as described in subsection (A)(3); and
b. Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in radiation safety, radionuclide handling, and quality control; or

2. Is an authorized user under R12-1-721, R12-1-723, NRC, or equivalent Agreement State requirements; or
3. Has completed 60 hours of training and experience, including a minimum of eight hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed radioactive material for uptake, dilution, and excretion studies. The training and experience must include:
   a. Classroom and laboratory training in the following areas:
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radioactivity;
      iv. Chemistry of radioactive material for medical use; and
      v. Radiation biology; and
   b. Work experience, under the supervision of an authorized user who meets the requirements in this Article, NRC, or equivalent Agreement State requirements, involving:
      i. Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;
      ii. Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;
      iii. Calculating, measuring, and safely preparing patient or human research subject dosages;
      iv. Using administrative controls to prevent a medical event involving the use of unsealed radioactive material;
      v. Using procedures to contain spilled radioactive material safely and using proper decontamination procedures; and
      vi. Administering dosages of radioactive drugs to patients or human research subjects; and
   c. Has obtained written attestation, signed by a preceptor authorized user who meets the requirements of R12-1-710, R12-1-719, R12-1-721, or R12-1-723, NRC, or equivalent Agreement State requirements; that the individual has satisfactorily completed the requirements in subsection (A)(1) or (A)(3) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under Exhibit A of this Article.

B. The training and experience shall have been obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

C. Individuals who, under R12-1-710(B), need not comply with training requirements described in this Section may serve as preceptors for, and supervisors of, applicants seeking authorization on Agency licenses for the same uses for which these individuals are authorized.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-720. Permissible Molybdenum-99, Strontium-82, and Strontium-85 Concentrations

A. A licensee may not administer to humans a radiopharmaceutical that contains more than 0.15 kilobecquerel of molybdenum-99 per megabecquerel of technetium-99m (0.15 microcurie of molybdenum-99 per millicurie of technetium-99m) or, more than 0.02 kilobecquerel of strontium-82 per megabecquerel of rubidium-82 chloride injection (0.02 microcurie of strontium-82 per millicurie of rubidium-82 chloride); or more than 0.2 kilobecquerel of strontium-85 per megabecquerel of rubidium-82 chloride injection (0.2 microcurie of strontium-85 per millicurie of rubidium-82).

B. A licensee that uses molybdenum-99/technetium-99m generators for preparing a technetium-99m radiopharmaceutical shall measure the molybdenum-99 concentration of the first eluate after receipt of a generator to demonstrate compliance with subsection (A).

C. A licensee that uses a strontium-82/rubidium-82 generator for preparing a rubidium-82 radiopharmaceutical shall, before the first patient use of the day, measure the concentration of radionuclides strontium-82 and strontium-85 to demonstrate compliance with subsection (A).

D. A licensee shall maintain a record of each molybdenum-99 concentration measurement or strontium-82 and strontium-85 concentrations measurements for three years following completion of the measurement.

Historical Note

New Section made by final rulemaking at 7 A.A.R. 2584, effective June 8, 2001 (Supp. 01-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-721. Training for Imaging and Localization Studies Not Requiring a Written Directive

A. Except as provided in R12-1-710, the licensee shall require an authorized user of unsealed radioactive material for the uses authorized under Group 200 to be a physician who:
1. Is certified by a medical specialty board whose certification process has been recognized by the NRC or an Agreement State and who meets the requirements in subsection (A)(3). To have its certification process recognized, a specialty board shall require all candidates for certification to:
   a. Complete 700 hours of training and experience in basic radionuclide handling techniques and radiation safety applicable to the medical use of unsealed radioactive material for imaging and localization studies as described in subsection (3); and

b. Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in radiation safety, radionuclide handling, and quality control; or

2. Is an authorized user under this Chapter and R12-1-723, NRC, or equivalent Agreement State requirements; or
3. Has completed 700 hours of training and experience, including a minimum of 80 hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed radioactive material for imaging and localization studies. The training and experience must include:
   a. Classroom and laboratory training in the following areas:
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radioactivity;
      iv. Chemistry of radioactive material for medical use; and
      v. Radiation biology; and
   b. Work experience, under the supervision of an authorized user who meets the requirements in R12-1-710, R12-1-721, or R12-1-723 and R12-1-721(A)(3)(b)(vii), NRC, or equivalent Agreement State requirements, involving:
      i. Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;
      ii. Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;
      iii. Calculating, measuring, and safely preparing patient or human research subject dosages;
      iv. Using administrative controls to prevent a medical event involving the use of unsealed radioactive material;
      v. Using procedures to contain spilled radioactive material safely and using proper decontamination procedures; and
      vi. Administering dosages of radioactive drugs to patients or human research subjects; and
      vii. Eluting generator systems appropriate for preparation of radioactive drugs for imaging and localization studies, measuring and testing the elate for radionuclide purity, and processing the elate with reagent kits to prepare labeled radioactive drugs; and,
   c. Has obtained written attestation, signed by a preceptor authorized user who meets the requirements as an authorized user for Exhibit A group 200 nuclides, NRC, or equivalent Agreement State requirements, that the individual has satisfactorily completed the requirements in subsection (A)(1) or (A)(3) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under Exhibit A of this Article.

B. The training and experience shall have been obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-722. Safety Instruction and Precautions for Use of Unsealed Radioactive Material Requiring a Written Directive

A. A licensee shall provide radiation safety instruction, initially and at least annually, for all personnel caring for the patient or human research subject receiving radiopharmaceutical therapy and hospitalized for compliance with R12-1-717. To satisfy this requirement, the instruction shall describe the licensee's procedures for:
1. Patient or human research subject control;
2. Visitor control;
3. Contamination control;
4. Waste control; and

B. For each patient or human research subject who cannot be released under R12-1-717, a licensee shall:
1. Quarter the patient or the human research subject in a private room with a private sanitary facility;
2. Visibly post the patient's or the human research subject's room with a "Radioactive Materials" sign.
3. Note on the door or in the patient's or human research subject's chart where and how long visitors may stay in the patient's or the human research subject's room; and
4. Monitor material and items removed from the patient's or the human research subject's room to determine that their radioactivity cannot be distinguished from the natural background radiation level with a radiation detection survey instrument set on its most sensitive scale and with no interposed shielding, or handle the material and items as radioactive waste.

C. A licensee shall notify the radiation safety officer, or his or her designee, and the authorized user as soon as possible if the patient or human research subject has a medical emergency or dies.

D. A licensee shall retain records of instruction and safety procedures performed under this rule for three years from the date of the activity.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-723. Training for Use of Unsealed Radioactive Material Requiring a Written Directive, Including Treatment of Hyperthyroidism, and Treatment of Thyroid Carcinoma

A. Except as provided in R12-1-710, the licensee shall require an authorized user of unsealed radioactive material for the uses authorized under Group 300 to be a physician who:

1. Is certified by a medical specialty board whose certification process has been recognized by the NRC or an Agreement State and who meets the requirements in subsection (A)(2). To have its certification process recognized, a specialty board shall require all candidates for certification to:
   a. Successfully complete residency training in a radiation therapy or nuclear medicine training program or a program in a related medical specialty. These residency training programs must include 700 hours of training and experience as described in (A)(2). Eligible training programs must be approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education, the Royal College of Physicians and Surgeons of Canada, or the Committee on Post-Graduate Training of the American Osteopathic Association; and
   b. Pass an examination, administered by diplomates of the specialty board, which tests knowledge and competence in radiation safety, radionuclide handling, and quality assurance, and clinical use of unsealed radioactive material for which a written directive is required; or
2. Has completed 700 hours of training and experience, including a minimum of 200 hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed radioactive material requiring a written directive. The training and experience must include:
   a. Classroom and laboratory training in the following areas:
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radioactivity;
      iv. Chemistry of radioactive material for medical use; and
      v. Radiation biology; and
   b. Work experience, under the supervision of an authorized user who meets the requirements in this Article, NRC, or equivalent Agreement State requirements, involving:
      i. Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;
      ii. Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;
      iii. Calculating, measuring, and safely preparing patient or human research subject dosages;
      iv. Using administrative controls to prevent a medical event involving the use of unsealed radioactive material;
      v. Using procedures to contain spilled radioactive material safely and using proper decontamination procedures;
      vi. Administering dosages of radioactive drugs to patients or human research subjects involving a minimum of three cases in each of the following categories for which the individual is requesting authorized user status:
         (1) Oral administration of less than or equal to 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131, for which a written directive is required (Experience with at least three cases in Category (A)(2)(b)(vi)(2) also satisfies this requirement);
         (2) Oral administration of greater than 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131;
         (3) Parenteral administration of any beta emitter, or a photon-emitting radionuclide with a photon energy less than 150 keV, for which a written directive is required; and/or
         (4) Parenteral administration of any other radionuclide, for which a written directive is required; and
   c. Has obtained written attestation, signed by a preceptor authorized user who meets the requirements as an authorized user for Exhibit A group 300 nuclides, NRC, or equivalent Agreement State requirements, that the individual has satisfactorily completed the requirements in subsection (A)(1) or (A)(2) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under Exhibit A of this Article. The written attestation must be signed by a preceptor authorized user who meets the requirements in this Section, NRC, or equivalent Agreement State requirements. The preceptor authorized user, who meets the requirements in subsection (B) must have experience in administering dosages in the same dosage category or categories as the individual requesting authorized user status.

B. Except as provided in R12-1-710, a licensee shall require an authorized user of iodine-131 for the oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries) to be a physician who has completed the training requirements in 10 CFR 35.392, January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. Except as provided in R12-1-710, a licensee shall require an authorized user of iodine-131 for the oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries) to be a physician who has completed the training requirements in 10 CFR 35.394, January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

D. Except as provided in R12-1-710, a licensee shall require an authorized user for the parenteral administration of unsealed radioactive material requiring a written directive to be a physician who has completed the training requirements in 10 CFR 35.396, January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

E. The training and experience shall have been obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-724. Surveys after Brachytherapy Source Implant and Removal; Accountability

A. A licensee shall make a survey to locate and account for all sources that have not been implanted immediately after implanting sources in a patient or a human research subject.

B. A licensee shall make a survey of the patient or the human research subject with a radiation detection survey instrument immediately after removing the last temporary implant source to confirm that all sources have been removed.

C. A licensee shall maintain accountability at all times for all sources in storage or use.

D. A licensee shall return brachytherapy sources to a secure storage area as soon as possible after removing sources from a patient or a human research subject.

E. A licensee shall record the procedures performed in subsections (A) through (D) and retain the records for three years following completion of the record.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-725. Safety Instructions and Precautions for Brachytherapy Patients that Cannot be Released Under R12-1-717

A. In addition to the training requirements in Article 10, a licensee shall provide radiation safety instruction, initially and at least annually, to personnel caring for patients or human research subjects who are receiving brachytherapy and cannot be released under R12-1-717. To satisfy this requirement, the instruction shall be commensurate with the duties of the personnel and include the:

1. Size and appearance of the brachytherapy sources;
2. Safe handling and shielding instructions;
3. Patient or human research subject control;
4. Visitor control, including both:
   a. Routine visitation of hospitalized individuals in accordance with Article 4 of this Chapter,
   b. Visitation authorized in accordance with Article 4 of this Chapter, and
5. Notification of the radiation safety officer, or his or her designee, and an authorized user if the patient or the human research subject has a medical emergency or dies.

B. For each patient or human research subject who is receiving brachytherapy and cannot be released under R12-1-717, a licensee shall:

1. Not quarter the patient or the human research subject in the same room as an individual who is not receiving brachytherapy;
2. Visibly post the patient's or human research subject's room with a "Radioactive Materials" sign; and
3. Note on the door or in the patient's or human research subject's chart where and how long visitors may stay in the patient's or human research subject's room.

C. A licensee shall have applicable emergency response equipment available near each treatment room to respond to a source:

1. Dislodged from the patient; and
2. Lodged within the patient following removal of the source applicators.

D. A licensee shall notify the radiation safety officer, or the RSO's designee, and an authorized user as soon as possible if the patient or human research subject has a medical emergency or dies.

E. A licensee shall record the instructions given under subsection (A) and retain the records for three years after recording the instructions.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-726. Calibration Measurements of Brachytherapy Sources, Decay of Sources Used for Ophthalmic Treatments, and Computerized Treatment Planning Systems

A. Before the first medical use of a brachytherapy source after the effective date of this rule, a licensee shall have:

1. Determined the source output or activity using a dosimetry system that meets the requirements of R12-1-733(A);
2. Determined source positioning accuracy within applicators; and
3. Used published protocols currently accepted by nationally recognized bodies to meet the requirements of subsections (A)(1) and (A)(2).

B. A licensee may use measurements provided by the source manufacturer or by a calibration laboratory accredited by the American Association of Physicists in Medicine that are made in accordance with subsection (A).

C. A licensee shall mathematically correct the outputs or activities determined in subsection (A) for physical decay at intervals consistent with one percent physical decay.

D. Only an authorized medical physicist shall calculate the activity of each strontium-90 source that is used to determine the treatment times for ophthalmic treatments. The decay shall be based on the activity determined under subsection (A).

E. A licensee shall perform acceptance testing on the treatment planning system of therapy-related computer systems in accordance with published protocols accepted by nationally recognized bodies. At a minimum, the acceptance testing shall include, as applicable, verification of:

1. The source-specific input parameters required by the dose calculation algorithm;
2. The accuracy of dose, dwell time, and treatment time calculations at representative points;
3. The accuracy of isodose plots and graphic displays; and
4. The accuracy of the software used to determine sealed source positions from radiographic images.

F. A licensee shall retain records of each source activity determination and ophthalmic source decay correction, and documentation of the acceptance testing protocol required under subsection (E) for three years after the date of the procedure required in subsections (A) and

(D), and for the records created in conjunction with subsection (E), the record shall be maintained for three years from the last date of the protocol's use.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-727. Training for Use of Manual Brachytherapy Sources and Training for the Use of Strontium-90 Sources for Treatment of Ophthalmic Disease

A. Except as provided in R12-1-710, the licensee shall require an authorized user of a manual brachytherapy source for the uses authorized under this Article to be a physician who:

1. Is certified by a medical specialty board whose certification process has been recognized by the NRC or an Agreement State and who meets the requirements in subsection (A)(2). To have its certification process recognized, a specialty board shall require all candidates for certification to:
   a. Successfully complete a minimum of three years of residency training in a radiation oncology program approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Post-Graduate Training of the American Osteopathic Association; and
   b. Pass an examination, administered by diplomates of the specialty board, that tests knowledge and competence in radiation safety, radionuclide handling, treatment planning, quality assurance, and clinical use of manual brachytherapy; or
2. Has completed a structured educational program in basic radionuclide handling techniques applicable to the use of manual brachytherapy sources that includes:
   a. 200 hours of classroom and laboratory training in the following areas:
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radioactivity;
      iv. Radiation biology; and
   b. 500 hours of work experience, under the supervision of an authorized user who meets the requirements in this Section, or equivalent NRC or Agreement State requirements at a medical institution, involving:
      i. Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;
      ii. Checking survey meters for proper operation;
      iii. Preparing, implanting, and removing brachytherapy sources;
      iv. Maintaining running inventories of material on hand;
      v. Using administrative controls to prevent a medical event involving the use of radioactive material;
      vi. Using emergency procedures to control radioactive material; and
   c. Has completed three years of supervised clinical experience in radiation oncology, under an authorized user who meets the requirements in this Section, or equivalent Agreement State requirements, as part of a formal training program approved by the Residency Review Committee for Radiation Oncology of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Postdoctoral Training of the American Osteopathic Association. This experience may be obtained concurrently with the supervised work experience required by subsection (A)(2)(b); and
   d. Has obtained written attestation, signed by a preceptor authorized user who meets the requirements in this Section, NRC, or equivalent Agreement State requirements, that the individual has satisfactorily completed the requirements in subsection (A)(1) or (A)(2) and has achieved a level of competency sufficient to function independently as an authorized user of manual brachytherapy sources for the medical uses authorized under Exhibit A of this Article.

B. Except as provided in R12-1-710, a licensee shall require an authorized user of strontium-90 for ophthalmic radiotherapy to be a physician who has completed the training requirements in 10 CFR 35.491, January 1, 2013, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. The training and experience shall have been obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-728. Training for Use of Sealed Sources for Diagnosis

A. Except as provided in R12-1-710, the licensee shall require the authorized user of a diagnostic sealed source for use in a device authorized under Group 500 to be a physician, dentist, or podiatrist who

is certified by a medical specialty board whose certification process has been recognized by the NRC or an Agreement State and who meets the requirements in subsections (A)(1) and (2); or

1. Has completed eight hours of classroom and laboratory training in basic radionuclide handling techniques specifically applicable to the use of the device. The training must include:
   a. Radiation physics and instrumentation;
   b. Radiation protection;
   c. Mathematics pertaining to the use and measurement of radioactivity;
   d. Radiation biology; and

2. Has completed training in the use of the device for the uses requested.

B. The training and experience shall have been obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-729. Surveys of Patients and Human Research Subjects Treated with a Remote Afterloader Unit

A. Before releasing a patient or a human research subject from licensee control, a licensee shall survey the patient or the human research subject and the remote afterloader unit with a portable radiation detection survey instrument to confirm that each source has been removed from the patient or human research subject and returned to the safe shielded position.

B. A licensee shall make records of these surveys conducted under subsection (A) and retain them for three years from the date of each survey.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-730. Installation, Maintenance, Adjustment, and Repair of an Afterloader Unit, Teletherapy Unit, or Gamma Stereotactic Radiosurgery Unit

A. Only a person specifically licensed by the Agency, NRC, or an Agreement State shall install, maintain, adjust, or repair a remote afterloader unit, teletherapy unit, or gamma stereotactic radiosurgery unit that involves work on any source shielding, the source's driving unit, or other electronic or mechanical component that could expose a source, reduce the shielding around a source, or compromise the radiation safety of a unit or a source.

B. Except for low dose-rate remote afterloader units, only a person specifically licensed by the Agency, NRC, or an Agreement State shall install, replace, relocate, or remove a sealed source or source contained in other remote afterloader units, teletherapy units, or gamma stereotactic radiosurgery units.

C. For a low dose-rate remote afterloader unit, only a person specifically licensed by the Agency, NRC, or an Agreement State or an authorized medical physicist shall install, replace, relocate, or remove a sealed source contained in the unit.

D. A licensee shall retain a record of the installation, maintenance, adjustment, and repair of remote afterloader units, teletherapy units, and gamma stereotactic radiosurgery units for three years from the completion date of the activity listed in this Section.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-731. Safety Procedures and Instructions for Remote Afterloader Units, Teletherapy Units, and Gamma Stereotactic Radiosurgery Units

A. A licensee shall:

1. Secure the unit, the console, the console keys, and the treatment room when not in use or unattended;
2. Permit only individuals approved by the authorized user, radiation safety officer, or authorized medical physicist to be present in the treatment room during treatment with a source;
3. Prevent dual operation of more than one radiation producing device in a treatment room if applicable; and
4. Develop, implement, and maintain written procedures for responding to an abnormal situation when the operator is unable to place a source in the shielded position, or remove the patient or human research subject from the radiation field with controls from outside the treatment room. These procedures shall include:
   a. Instructions for responding to equipment failures and the names of the individuals responsible for implementing corrective actions;
   b. The process for restricting access to and posting of the treatment area to minimize the risk of inadvertent exposure; and
   c. The names and telephone numbers of the authorized users, the authorized medical physicist, and the radiation safety officer to be contacted if the unit or console operates abnormally.

B. A licensee shall post instructions at the unit console to inform the operator of:

1. The location of the procedures required by subsection (A)(4); and
2. The names and telephone numbers of the authorized users, the authorized medical physicist, and the radiation safety officer to be contacted if the unit or console operates abnormally.

C. A licensee shall provide instruction, initially and at least annually, to all individuals who operate the unit, as appropriate to the individual's assigned duties, in:

1. The procedures identified in subsection (A)(4); and
2. The operating procedures for the unit.

D. A licensee shall ensure that operators, authorized medical physicists, and authorized users participate in drills of the emergency procedures, initially and at least annually.

E. A licensee shall retain a record of individuals receiving instruction required by subsection (C) for three years from the date of the instruction.

F. A licensee shall maintain a copy of the procedures required by subsections (A)(4) and (C)(2) for Agency review. The copy shall be maintained for three years beyond the termination date of the activities for which the procedures were written.

Radiation Regulatory Agency
Historical Note
New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-732. Safety Precautions for Remote Afterloader Units, Teletherapy Units, and Gamma Stereotactic Radiosurgery Units

A. A licensee shall control access at each entrance to a treatment room.

B. A licensee shall equip each entrance to the treatment room with an electrical interlock system that will:
1. Prevent the operator from initiating the treatment cycle unless each treatment room entrance door is closed;
2. Cause each source to be shielded when an entrance door is opened; and
3. Prevent any source from being exposed following an interlock interruption until all treatment room entrance doors are closed and the source's on-off control is reset at the console.

C. A licensee shall require any individual entering the treatment room to assure, through the use of appropriate radiation monitors, that radiation levels have returned to ambient levels.

D. Except for low-dose remote afterloader units, a licensee shall construct or equip each treatment room with viewing and intercom systems to permit continuous observation of the patient or the human research subject from the treatment console during irradiation.

E. For licensed activities where sources are placed within the patient's or human research subject's body, a licensee shall only conduct treatments which allow for expeditious removal of a decoupled or jammed source.

F. In addition to the requirements specified in subsections (A) through (E), a licensee shall:
1. For medium dose-rate and pulsed dose-rate remote afterloader units, require:
   a. An authorized medical physicist and either an authorized user or a physician, under the supervision of an authorized user, who has been trained in the operation and emergency response for the unit, to be physically present during the initiation of all patient treatments involving the unit; and
   b. An authorized medical physicist and either an authorized user or an individual, under the supervision of an authorized user, who has been trained to remove each source applicator in the event of an emergency involving the unit, to be immediately available during continuation of all patient treatments involving the unit.
2. For high dose-rate remote afterloader units, require:
   a. An authorized user and an authorized medical physicist to be physically present during the initiation of all patient treatments involving the unit; and
   b. An authorized medical physicist and either an authorized user or a physician, under the supervision of an authorized user, who has been trained in the operation and emergency response for the unit, to be physically present during continuation of all patient treatments involving the unit.
3. For gamma stereotactic radiosurgery units, require an authorized user and an authorized medical physicist to be physically present throughout all patient treatments involving the unit. As used in this provision, physically present means to be within hearing distance of normal voice, and does not include the use of portable communication devices, intercoms, or other devices that could be used to amplify the human voice.
4. Notify the radiation safety officer, or radiation safety officer's designee, and an authorized user as soon as possible if the patient or human research subject has a medical emergency or dies.

G. A licensee shall have applicable emergency response equipment available near each treatment room to respond to a source:
1. Remaining in the unshielded position; or
2. Lodged within the patient following completion of the treatment.

Historical Note
New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-733. Dosimetry Equipment

A. Except for low dose-rate remote afterloader sources where the source output or activity is determined by the manufacturer, a licensee shall have a calibrated dosimetry system available for use. To satisfy this requirement, one of the following two conditions shall be met.
1. The system shall have been calibrated using a system or source traceable to the National Institute of Science and Technology (NIST) and published protocols accepted by nationally recognized bodies; or by a calibration laboratory accredited by the American Association of Physicists in Medicine (AAPM). The calibration shall have been performed within the previous two years and after any servicing that may have affected system calibration; or
2. The system shall have been calibrated within the previous four years. Eighteen to 30 months after that calibration, the system shall have been intercompared with another dosimetry system that was calibrated within the past 24 months by NIST or by a calibration laboratory accredited by the AAPM. The results of the intercomparison shall indicate that the calibration factor of the licensee's system had not changed by more than two percent. The licensee may not use the intercomparison result to change the calibration factor. When intercomparing dosimetry systems to be used for calibrating sealed sources for therapeutic units, the licensee shall use a comparable unit with beam attenuators or collimators, as applicable, and sources of the same radionuclide as the source used at the licensee's facility.

B. The licensee shall have a dosimetry system available for use for spot-check output measurements, if applicable. To satisfy this requirement, the system may be compared with a system that has been calibrated in accordance with subsection (A). This comparison shall have been performed within the previous year and after each servicing that may have affected system calibration. The spot-check system may be the same system used to meet the requirement in subsection (A).

C. The licensee shall retain, for three years from the date of the procedure, a record of each calibration, intercomparison, and comparison.

Radiation Regulatory Agency
Historical Note
New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-734. Full Calibration Measurements on Teletherapy Units

A. A licensee authorized to use a teletherapy unit for medical use shall perform full calibration measurements on each teletherapy unit:
1. Before the first medical use of the unit; and
2. Before medical use under the following conditions:
   a. Whenever spot-check measurements indicate that the output differs by more than 5 percent from the output obtained at the last full calibration corrected mathematically for radioactive decay;
   b. Following replacement of the source or following reinstallation of the teletherapy unit in a new location;
   c. Following any repair of the teletherapy unit that includes removal of the source or major repair of the components associated with the source exposure assembly; and
3. At intervals not exceeding one year.

B. To satisfy the requirement of subsection (A), full calibration measurements shall include determination of:
1. The output within ±3 percent for the range of field sizes and for the distance or range of distances used for medical use;
2. The coincidence of the radiation field and the field indicated by the light beam localizing device;
3. The uniformity of the radiation field and its dependence on the orientation of the useful beam;
4. Timer accuracy and linearity over the range of use;
5. On-off error; and
6. The accuracy of all distance measuring and localization devices in medical use.

C. A licensee shall use the dosimetry system described in R12-1-733(A) to measure the output for one set of exposure conditions. The remaining radiation measurements required in subsection (B)(1) may be made using a dosimetry system that indicates relative dose rates.

D. A licensee shall make full calibration measurements required by subsection (A) in accordance with published protocols accepted by nationally recognized bodies.

E. A licensee shall mathematically correct the outputs determined in subsection (B)(1) for physical decay for intervals not exceeding one month for cobalt-60, six months for cesium-137, or at intervals consistent with 1 percent decay for all other nuclides.

F. Full calibration measurements required by subsection (A) and physical decay corrections required by subsection (E) shall be performed by an authorized medical physicist.

G. A licensee shall retain a record of each calibration for three years from the date it was completed.

Historical Note
New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-735. Full Calibration Measurements on Remote Afterloader Units

A. A licensee authorized to use a remote afterloader unit for medical use shall perform full calibration measurements on each unit:
1. Before the first medical use of the unit;
2. Before medical use under the following conditions:
   a. Following replacement of the source or following reinstallation of the unit in a new location outside the facility; and
   b. Following any repair of the unit that includes removal of the source or major repair of the components associated with the source exposure assembly; and
3. At intervals not exceeding one quarter for high dose-rate, medium dose-rate, and pulsed dose-rate remote afterloader units with sources whose half-life exceeds 75 days; and
4. At intervals not exceeding one year for low dose-rate remote afterloader units.

B. To satisfy the requirement of subsection (A), full calibration measurements shall include, as applicable, determination of:
1. The output within ±5 percent;
2. Source positioning accuracy to within ±1 millimeter;
3. Source retraction with backup battery upon power failure;
4. Length of the source transfer tubes;
5. Timer accuracy and linearity over the typical range of use;
6. Length of the applicators; and
7. Function of the source transfer tubes, applicators, and transfer tube-applicator interfaces.

C. A licensee shall use the dosimetry system described in R12-1-733(A) to measure the output.

D. A licensee shall make full calibration measurements required by subsection (A) in accordance with published protocols accepted by nationally recognized bodies.

E. In addition to the requirements for full calibrations for low dose-rate remote afterloader units in subsection (B), a licensee shall perform an autoradiograph of the sources to verify inventory and source arrangement at intervals not exceeding one quarter.

F. For low dose-rate remote afterloader units, a licensee may use measurements provided by the source manufacturer that are made in accordance with subsections (A) through (E).

G. A licensee shall mathematically correct the outputs determined in subsection (B)(1) for physical decay at intervals consistent with 1 percent physical decay.

H. Full calibration measurements required by subsection (A) and physical decay corrections required by subsection (G) shall be performed by an authorized medical physicist.

I. A licensee shall retain a record of each calibration for three years from the date it was completed.

Radiation Regulatory Agency

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-736. Full Calibration Measurements on Gamma Stereotactic Radiosurgery Units

A. A licensee authorized to use a gamma stereotactic radiosurgery unit for medical use shall perform full calibration measurements on each unit:
1. Before the first medical use of the unit;
2. Before medical use under the following conditions:
   a. Whenever spot-check measurements indicate that the output differs by more than 5 percent from the output obtained at the last full calibration corrected mathematically for radioactive decay;
   b. Following replacement of the sources or following reinstallation of the gamma stereotactic radiosurgery unit in a new location; and
   c. Following any repair of the gamma stereotactic radiosurgery unit that includes removal of the sources or major repair of the components associated with the source assembly; and
3. At intervals not exceeding one year, with the exception that relative helmet factors need only be determined before the first medical use of a helmet and following any damage to a helmet.

B. To satisfy the requirement of subsection (A), full calibration measurements shall include determination of:
1. The output within ±3 percent;
2. Relative helmet factors;
3. Isocenter coincidence;
4. Timer accuracy and linearity over the range of use;
5. On-off error;
6. Trunnion centricity;
7. Treatment table retraction mechanism, using backup battery power or hydraulic backups with the unit off;
8. Helmet microswitches;
9. Emergency timing circuits; and
10. Stereotactic frames and localizing devices (trunnions).

C. A licensee shall use the dosimetry system described in R12-1-733(A) to measure the output for one set of exposure conditions. The remaining radiation measurements required in subsection (B)(1) may be made using a dosimetry system that indicates relative dose rates.

D. A licensee shall make full calibration measurements required by subsection (A) in accordance with published protocols accepted by nationally recognized bodies.

E. A licensee shall mathematically correct the outputs determined in subsection (B)(1) at intervals not exceeding one month for cobalt-60 and at intervals consistent with 1 percent physical decay for all other radionuclides

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F. Full calibration measurements required by subsection (A) and physical decay corrections required by subsection (E) shall be performed by an authorized medical physicist.

G. A licensee shall retain a record of each calibration for three years from the date of the procedure.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-737. Periodic Spot-checks for Teletherapy Units

A. A licensee authorized to use teletherapy units for medical use shall perform output spot-checks on each teletherapy unit once in each calendar month that include determination of:
1. Timer accuracy, and timer linearity over the range of use;
2. On-off error;
3. The coincidence of the radiation field and the field indicated by the light beam localizing device;
4. The accuracy of all distance measuring and localization devices used for medical use;
5. The output for one typical set of operating conditions measured with the dosimetry system described in R12-1-733(B); and
6. The difference between the measurement made in subsection (A)(5) and the anticipated output, expressed as a percentage of the anticipated output.

B. A licensee shall perform measurements required by subsection (A) in accordance with written procedures established by an authorized medical physicist. That individual need not actually perform the spot-check measurements.

C. A licensee shall have an authorized medical physicist review the results of each spot-check within 15 days. The authorized medical physicist shall notify the licensee as soon as possible in writing of the results of each spot-check.

D. A licensee authorized to use a teletherapy unit for medical use shall perform safety spot-checks of each teletherapy facility once in each calendar month and after each source installation to assure proper operation of:
1. Electrical interlocks at each teletherapy room entrance;
2. Electrical or mechanical stops installed for the purpose of limiting use of the primary beam of radiation (restriction of source housing angulation or elevation, carriage or stand travel and operation of the beam on-off mechanism);
3. Source exposure indicator lights on the teletherapy unit, on the control console, and in the facility;
4. Viewing and intercom systems;
5. Treatment room doors from inside and outside the treatment room; and

6. Electrically assisted treatment room doors with the teletherapy unit electrical power turned off.

E. If the results of the checks required in subsection (D) indicate the malfunction of any system, a licensee shall lock the control console in the off position and not use the unit except as may be necessary to repair, replace, or check the malfunctioning system.

F. A licensee shall retain a record of each spot-check required by subsections (A) and (D) for three years from the date of the procedure, and a copy of the procedures required by subsection (B) until licensee terminates all medical activities involving the teletherapy unit.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-738. Periodic Spot-checks for Remote Afterloader Units

A. A licensee authorized to use a remote afterloader unit for medical use shall perform spot-checks of each remote afterloader facility and on each unit:

1. Before the first use of a high dose-rate, medium dose-rate, or pulsed dose-rate remote afterloader unit on a given day;
2. Before each patient treatment with a low dose-rate remote afterloader unit; and
3. After each source installation.

B. A licensee shall perform the measurements required by subsection (A) in accordance with written procedures established by an authorized medical physicist. That individual need not actually perform the spot-check measurements.

C. A licensee shall have an authorized medical physicist review the results of each spot-check within 15 days. The authorized medical physicist shall notify the licensee as soon as possible in writing of the results of each spot-check.

D. To satisfy the requirements of subsection (A), spot-checks shall, at a minimum, assure proper operation of:

1. Electrical interlocks at each remote afterloader unit room entrance;
2. Source exposure indicator lights on the remote afterloader unit, on the control console, and in the facility;
3. Viewing and intercom systems in each high dose-rate, medium dose-rate, and pulsed dose-rate remote afterloader facility;
4. Emergency response equipment;
5. Radiation monitors used to indicate the source position;
6. Timer accuracy;
7. Clock (date and time) in the unit's computer; and
8. Decayed source activity in the unit's computer.

E. If the results of the checks required in subsection (D) indicate the malfunction of any system, a licensee shall lock the control console in the off position and not use the unit except as may be necessary to repair, replace, or check the malfunctioning system.

F. A licensee shall retain a record of each spot-check required by subsections (A) and (D) for three years from the date of the procedure, and a copy of the procedures required by subsection (B) until licensee terminates all medical activities involving the afterloader unit.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-739. Periodic Spot-checks for Gamma Stereotactic Radiosurgery Units

A. A licensee authorized to use a gamma stereotactic radiosurgery unit for medical use shall perform spot-checks of each gamma stereotactic radiosurgery facility and on each unit:

1. Monthly;
2. Before the first use of the unit on a given day; and
3. After each source installation.

B. A licensee shall:

1. Perform the measurements required by subsection (A) in accordance with written procedures established by an authorized medical physicist. That individual need not actually perform the spot-check measurements.
2. Have the authorized medical physicist review the results of each spot-check within 15 days. The authorized medical physicist shall notify the licensee as soon as possible in writing of the results of each spot-check.

C. To satisfy the requirements of subsection (A)(1), spot-checks shall, at a minimum:

1. Assure proper operation of:
   a. Treatment table retraction mechanism, using backup battery power or hydraulic backups with the unit off;
   b. Helmet microswitches;
   c. Emergency timing circuits; and
   d. Stereotactic frames and localizing devices (trunnions).
2. Determine:
   a. The output for one typical set of operating conditions measured with the dosimetry system described in R12-1-733(B);
   b. The difference between the measurement made in subsection (C)(2)(a) and the anticipated output, expressed as a percentage of the anticipated output;
   c. Source output against computer calculation;
   d. Timer accuracy and linearity over the range of use;
   e. On-off error; and
   f. Trunnion centricity.

D. To satisfy the requirements of subsections (A)(2) and (A)(3), spot-checks shall assure proper operation of:

1. Electrical interlocks at each gamma stereotactic radiosurgery room entrance;

2. Source exposure indicator lights on the gamma stereotactic radiosurgery unit, on the control console, and in the facility;
3. Viewing and intercom systems;
4. Timer termination;
5. Radiation monitors used to indicate room exposures; and
6. Emergency off buttons.

E. A licensee shall arrange for the repair of any system identified in subsection (C) that is not operating properly as soon as possible.

F. If the results of the checks required in subsection (D) indicate the malfunction of any system, a licensee shall lock the control console in the off position and not use the unit except as may be necessary to repair, replace, or check the malfunctioning system.

G. A licensee shall retain a record of each check required by subsections (C) and (D) for three years from the date of the procedure, and a copy of the procedures required by subsection (B) until licensee terminates all medical activities involving the radiosurgery unit.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-740. Additional Requirements for Mobile Remote Afterloader Units

A. A licensee providing mobile remote afterloader service shall:

1. Check survey instruments before medical use at each address of use or on each day of use, whichever is more frequent; and
2. Account for all sources before departure from a client's address of use.

B. In addition to the periodic spot-checks required by R12-1-738, a licensee authorized to use mobile afterloaders for medical use shall perform checks on each remote afterloader unit before use at each address of use. At a minimum, checks shall be made to verify the operation of:

1. Electrical interlocks on treatment area access points;
2. Source exposure indicator lights on the remote afterloader unit, on the control console, and in the facility;
3. Viewing and intercom systems;
4. Applicators, source transfer tubes, and transfer tube-applicator interfaces;
5. Radiation monitors used to indicate room exposures;
6. Source positioning (accuracy); and
7. Radiation monitors used to indicate whether the source has returned to a safe shielded position.

C. In addition to the requirements for checks in subsection (B), a licensee shall ensure overall proper operation of the remote afterloader unit by conducting a simulated cycle of treatment before use at each address of use.

D. If the results of the checks required in subsection (B) indicate the malfunction of any system, a licensee shall lock the control console in the off position and not use the unit except as may be necessary to repair, replace, or check the malfunctioning system.

E. A licensee shall retain a record of each check required by subsection (B) for three years from the date of the procedure.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-741. Additional Radiation Surveys of Sealed Sources used in Radiation Therapy

A. In addition to the survey requirement in Article 4 of this Chapter, a person licensed to use sealed sources in the practice of radiation therapy shall make surveys to ensure that the maximum radiation levels and average radiation levels from the surface of the main source safe with each source in the shielded position do not exceed the levels stated in the Sealed Source and Device Registry.

B. A licensee shall make the survey required by subsection (A) at installation of a new source and following repairs to any source shielding, a source's driving unit, or other electronic or mechanical component that could expose the source, reduce the shielding around a source, or compromise the radiation safety of the unit or the source.

C. A licensee shall retain a record of the radiation surveys required by subsection (A) for three years from the date of each survey.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-742. Five-year Inspection for Teletherapy and Gamma Stereotactic Radiosurgery Units

A. A licensee shall have each teletherapy unit and gamma stereotactic radiosurgery unit fully inspected and serviced during source replacement or at intervals not to exceed five years, whichever comes first, to assure proper functioning of the source exposure mechanism.

B. This inspection and servicing may only be performed by persons specifically licensed to do so by the Agency, NRC, or an Agreement State.

C. A licensee shall keep a record of each five-year inspection for three years from the date of the inspection, if the inspection determined that service was unnecessary, and three years from the date of the completed service if the inspection determined that service was needed.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-743. Therapy-related Computer Systems

The licensee shall perform acceptance testing on the treatment planning system of therapy-related computer systems in accordance with published protocols accepted by nationally recognized bodies. At a minimum, the acceptance testing shall include, as applicable, verification of:

1. The source-specific input parameters required by the dose calculation algorithm;
2. The accuracy of dose, dwell time, and treatment time calculations at representative points;
3. The accuracy of isodose plots and graphic displays;
4. The accuracy of the software used to determine sealed source positions from radiographic images; and
5. The accuracy of electronic transfer of the treatment delivery parameters to the treatment delivery unit from the treatment planning system.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-744. Training for Use of Remote Afterloader Units, Teletherapy Units, and Gamma Stereotactic Radiosurgery Units

A. Except as provided in R12-1-710, a licensee shall require an authorized user of a sealed source for a use authorized under Group 600 to be a physician who:

1. Is certified by a medical specialty board whose certification process has been recognized by the NRC or an Agreement State and who meets the requirements in subsection (A)(2). To have its certification process recognized, a specialty board shall require all candidates to:
   a. Successfully complete a minimum of three years of residency training in a radiation therapy program approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Post-Graduate Training of the American Osteopathic Association; and
   b. Pass an examination, administered by diplomates of the specialty board, which tests knowledge and competence in radiation safety, radionuclide handling, treatment planning, quality assurance, and clinical use of stereotactic radiosurgery, remote afterloaders and external beam therapy; or
2. Has completed a structured educational program in basic radionuclide techniques applicable to the use of a sealed source in a therapeutic medical unit that includes:
   a. 200 hours of classroom and laboratory training in the following areas:
      i. Radiation physics and instrumentation;
      ii. Radiation protection;
      iii. Mathematics pertaining to the use and measurement of radioactivity;
      iv. Chemistry of radioactive material for medical use; and
      v. Radiation biology; and
   b. 500 hours of work experience, under the supervision of an authorized user who meets the requirements in this Section, or equivalent Agreement State or NRC requirements at a medical institution, involving:
      i. Reviewing full calibration measurements and periodic spot-checks;
      ii. Preparing treatment plans and calculating treatment doses and times;
      iii. Using administrative controls to prevent a medical event involving the use of radioactive material;
      iv. Implementing emergency procedures to be followed in the event of the abnormal operation of the medical unit or console;
      v. Checking and using survey meters; and
      vi. Selecting the proper dose and how it is to be administered; and
   c. Has completed three years of supervised clinical experience in radiation therapy, under an authorized user who meets the requirements in this Section, or equivalent Agreement State or NRC requirements, as part of a formal training program approved by the Residency Review Committee for Radiation Oncology of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Postdoctoral Training of the American Osteopathic Association. This experience may be obtained concurrently with the supervised work experience required by subsection (A)(2)(b); and
   d. Has obtained written attestation that the individual has satisfactorily completed the requirements in subsection (A)(1) or (A)(2), and has achieved a level of competency sufficient to function independently as an authorized user of each type of therapeutic medical unit for which the individual is requesting authorized user status. The written attestation must be signed by a preceptor authorized user who meets the requirements in this Section, or equivalent Agreement State or NRC requirements for an authorized user for each type of therapeutic medical unit for which the individual is requesting authorized user status; and
   e. Has received training in device operation, safety procedures, and clinical use for the type(s) of use for which authorization is sought. This training requirement may be satisfied by satisfactory completion of a training program provided by the vendor for new users or by receiving training supervised by an authorized user or authorized medical physicist, as appropriate, who is authorized for the type(s) of use for which the individual is seeking authorization.

B. The training and experience shall have been obtained within the seven years preceding the date of application or the individual shall have had related continuing education and experience since the required training and experience was completed.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

R12-1-745. Report and Notification of a Medical Event

A. A licensee shall report any "medical" event, except for an event that results from patient intervention, in which the administration of radioactive material or radiation from radioactive material results in:
1. A dose that differs from the prescribed dose or dose that would have resulted from the prescribed dosage by more than 0.05 Sv (5 rem) effective dose equivalent, 0.5 Sv (50 rem) to an organ or tissue, or 0.5 Sv (50 rem) shallow dose equivalent to the skin; and
   a. The total dose delivered differs from the prescribed dose by 20 percent or more;
   b. The total dosage delivered differs from the prescribed dosage by 20 percent or more or falls outside the prescribed dosage range; or
   c. The fractionated dose delivered differs from the prescribed dose, for a single fraction, by 50 percent or more.
2. A dose that exceeds 0.05 Sv (5 rem) effective dose equivalent, 0.5 Sv (50 rem) to an organ or tissue, or 0.5 Sv (50 rem) shallow dose equivalent to the skin from any of the following:
   a. An administration of a wrong radiopharmaceutical containing radioactive material;
   b. An administration of a radiopharmaceutical containing radioactive material by the wrong route of administration;
   c. An administration of a dose or dosage to the wrong individual or human research subject;
   d. An administration of a dose or dosage delivered by the wrong mode of treatment; or
   e. A leaking sealed source.
3. A dose to the skin or an organ or tissue other than the treatment site that exceeds by 0.5 Sv (50 rem) to an organ or tissue and 50 percent or more of the dose expected from the administration defined in the written directive (excluding, for permanent implants, seeds that were implanted in the correct site but migrated outside the treatment site).

B. A licensee shall report any event resulting from intervention of a patient or human research subject in which the administration of radioactive material or radiation from radioactive material results or will result in unintended permanent functional damage to an organ or a physiological system, as determined by a physician.

C. The licensee shall notify by telephone the Agency no later than the next calendar day after discovery of the medical event.

D. The licensee shall submit a written report to the Agency within 15 days after discovery of the medical event.
1. The written report shall include:
   a. The licensee's name;
   b. The name of the prescribing physician;
   c. A brief description of the event;
   d. Why the event occurred;
   e. The effect, if any, on each individual who received the administration;
   f. What actions, if any, have been taken or are planned to prevent recurrence; and
   g. Certification that the licensee notified each individual (or the individual's responsible relative or guardian), and if not, why not.
2. The report may not contain an individual's name or any other information that could lead to identification of the individual.

E. The licensee shall provide notification of the event to the referring physician and also notify the individual who is the subject of the medical event no later than 24 hours after its discovery, unless the referring physician personally informs the licensee either that he or she will inform the individual or that, based on medical judgment, telling the individual would be harmful. The licensee is not required to notify the individual without first consulting the referring physician. If the referring physician or the affected individual cannot be reached within 24 hours, the licensee shall notify the individual as soon as possible thereafter. The licensee may not delay any appropriate medical care for the individual, including any necessary remedial care as a result of the medical event, because of any delay in notification. To meet the requirements of this subsection, the notification of the individual who is the subject of the medical event may be made instead to that individual's responsible relative or guardian. If a verbal notification is made, the licensee shall inform the individual, or appropriate responsible relative or guardian, that a written description of the event can be obtained from the licensee upon request. The licensee shall provide such a written description if requested.

F. Aside from the notification requirement, nothing in this Section affects any rights or duties of licensees and physicians in relation to each other, to individuals affected by the medical event, or to that individual's responsible relatives or guardians.

G. A licensee shall:
1. Annotate a copy of the report provided to the Agency with the:
   a. Name of the individual who is the subject of the event; and
   b. Social Security number or other identification number, if one has been assigned, of the individual who is the subject of the event; and
2. Provide a copy of the annotated report to the referring physician, if other than the licensee, no later than 15 days after the discovery of the event.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

R12-1-746. Report and Notification of a Dose to an Embryo, Fetus, or Nursing Child

A. A licensee shall report any dose to an embryo/fetus that is greater than 50 mSv (5 rem) dose equivalent that is a result of an administration of radioactive material or radiation from radioactive material to a pregnant individual unless the dose to the embryo/fetus was specifically approved, in advance, by the authorized user.

B. A licensee shall report any dose to a nursing child that is a result of an administration of radioactive material to a breast-feeding individual that:

1. Is greater than 50 mSv (5 rem) total effective dose equivalent; or
2. Has resulted in unintended permanent functional damage to an organ or a physiological system of the child, as determined by a physician.

C. The licensee shall notify the Agency by telephone no later than the next calendar day after discovery of a dose to the embryo, fetus, or nursing child that requires a report in subsections (A) or (B).

D. The licensee shall submit a written report to the Agency within 15 days after discovery of a dose to the embryo, fetus, or nursing child that requires a report in subsections (A) or (B). The written report shall include
:

1. The licensee's name;
2. The name of the prescribing physician;
3. A brief description of the event;
4. Why the event occurred;
5. The effect, if any, on the embryo/fetus or the nursing child;
6. What actions, if any, have been taken or are planned to prevent recurrence; and
7. Certification that the licensee notified the pregnant individual or mother (or the mother's or child's responsible relative or guardian), and if not, why not.

E. The report, required in subsection (D), shall not contain the individual's or child's name or any other information that could lead to identification of the individual or child.

F. The licensee shall provide notification of the event to the referring physician and also notify the pregnant individual or mother, both hereafter referred to as the mother, no later than 24 hours after discovery of an event that would require reporting under subsections (A) or (B), unless the referring physician personally informs the licensee either that he or she will inform the mother or that, based on medical judgment, telling the mother would be harmful. The licensee is not required to notify the mother without first consulting with the referring physician. If the referring physician or mother cannot be reached within 24 hours, the licensee shall make the appropriate notifications as soon as possible thereafter. The licensee shall not delay any appropriate medical care for the embryo, fetus, or for the nursing child, including any necessary remedial care as a result of the event, because of any delay in notification. To meet the requirements of this subsection, the notification may be made to the mother's or child's responsible relative or guardian instead of the mother. If a verbal notification is made, the licensee shall inform the mother, or the mother's or child's responsible relative or guardian, that a written description of the event can be obtained from the licensee upon request. The licensee shall provide the written description upon request.

G. A licensee shall:

1. Make a copy of the report provided to the Agency and include with it the:
   a. Name of the pregnant individual or the nursing child who is the subject of the event; and
   b. Social Security number or other identification number, if one has been assigned, of the pregnant individual or the nursing child who is the subject of the event; and
2. Provide the copy of the information required in subsection (G)(1) to the referring physician, if other than the licensee, no later than 15 days after the discovery of the event.

Historical Note

New Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1).

Exhibit A. Medical Use Groups

Group 100

Included is the use of any unsealed radioactive material for use in uptake, dilution, or excretion studies and not requiring a written directive: The radioactive material in this group shall be:

1. Obtained from a manufacturer or preparer licensed under R12-1-703(C)(2)(a), or equivalent NRC or Agreement State requirements; or
2. Obtained from a PET radioactive drug producer licensed under R12-1-703 or equivalent NRC or an Agreement State license excluding production of PET radionuclides prepared by an authorized nuclear pharmacist who meets the requirements in R12-1-712, a physician who is an authorized user and who meets the requirements specified in R12-1-721, or R12-1-723 and R12-1-721(A)(3)(b)(vii), or an individual under the supervision of either as specified in R12-1-706; or
3. If a research protocol:
   a Obtained from and prepared by an Agreement State or NRC licensee for use in research in accordance with a Radioactive Drug Research Committee-approved protocol or an Investigational New Drug (IND) protocol accepted by FDA; or
   b. Prepared by the licensee for use in research in accordance with a Radioactive Drug Research Committee-approved application or an Investigational New Drug (IND) protocol accepted by FDA.

Group 200

Included is the use of any unsealed radioactive material for use in imaging and localization not requiring a written directive. PET radiopharmaceuticals may be used if the licensee meets the requirements in R12-1-716. The radioactive material in this group shall be:

1. Obtained from a manufacturer or preparer licensed under R12-1-703(C)(2)(a), or equivalent NRC or Agreement State requirements; or
2. Obtained from a PET radioactive drug producer licensed under R12-1-703 or equivalent NRC or an Agreement State license excluding production of PET radionuclides prepared by an authorized nuclear pharmacist who meets the requirements in R12-1-712,

a physician who is an authorized user and who meets the requirements specified in R12-1-721 or R12-1-723 and R12-1-721(A)(3)(b)(vii), or an individual under the supervision of either as specified in R12-1-706; or

3. If a research protocol:
   a. Obtained from and prepared by an Agreement State or NRC licensee for use in research in accordance with a Radioactive Drug Research Committee- approved application or an Investigational New Drug (IND) protocol accepted by FDA; or
   b. Prepared by the licensee for use in research in accordance with a Radioactive Drug Research Committee-approved application or an Investigational New Drug (IND) protocol accepted by FDA.

Group 300

Included is the use of any unsealed radioactive material for medical use (radiopharmaceutical) for which a written directive is required. The radioactive material in this group shall be:

1. Obtained from a manufacturer or preparer licensed under R12-1-703(C)(2)(a) or equivalent NRC or Agreement State requirements; or
2. Obtained from a PET radioactive drug producer licensed under R12-1-703 or equivalent NRC or an Agreement State license excluding production of PET radionuclides prepared by an authorized nuclear pharmacist who meets the requirements in R12-1-712, a physician who is an authorized user and who meets the requirements specified in R12-1-721 or R12-1-723, or an individual under the supervision of either as specified in R12-1-706; or
3. If a research protocol:
   a. Obtained from and prepared by an Agreement State or NRC licensee for use in research in accordance with an Investigational New Drug (IND) protocol accepted by FDA; or
   b. Prepared by the licensee for use in research in accordance with an Investigational New Drug (IND) protocol accepted by FDA.

Group 400

Included is the use of any brachytherapy source for therapeutic medical use that is manufactured in accordance with R12-1-703(C)(2)(b) and:

1. Approved for therapeutic use in the Sealed Source and Device Registry; or
2. Part of a research protocol that is approved for therapeutic use under an active Investigational Device Exemption (IDE) application accepted by the FDA, and meets the requirements of R12-1-709.

Group 500

Included is the use of any sealed source that is manufactured in accordance with R12-1-703(C)(2)(b), and is approved for diagnostic use in the Sealed Source and Device Registry.

Group 600

Included is the use of sealed sources in photon emitting remote afterloader units, teletherapy units, or gamma stereotactic radiosurgery units that are manufactured in accordance with R12-1-703(C)(2)(b) and:

1. Approved for therapeutic use in the Sealed Source and Device Registry; or
2. Part of a research protocol that is approved for therapeutic use under an active Investigational Device Exemption (IDE) application accepted by the FDA and meets the requirements of R12-1-709.

Group 1000

A licensee may use radioactive material or a radiation source approved for medical use which is not specifically addressed in R12-1-309(A)(4) if:

1. The applicant or licensee has submitted the information required by this Article; and
2. The applicant or licensee has received written approval from the Agency in a license or license amendment and uses the material in accordance with the rules and specific conditions the Agency considers necessary for the medical use of the material.

Historical Note

New Exhibit adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Section repealed; new Section made by final rulemaking at 13 A.A.R. 1217, effective May 5, 2007 (Supp. 07-1). Amended by final rulemaking at 20 A.A.R. 324, effective March 8, 2014 (Supp. 14-1).

ARTICLE 13. LICENSE AND REGISTRATION FEES

R12-1-1301. Definition

"Combined" means the Agency has granted authorized activities contained in two or more license types in a single license document, requiring the payment of a single license fee for the more expensive license of the planned combination.

Historical Note

Adopted effective November 19, 1982 (Supp. 82-6). Amended effective November 28, 1983 (Supp. 83-6). Amended subsection (B) and added a new subsection (C) effective November 28, 1986 (Supp. 86-6). Section repealed, new Section adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-1302. License and Registration Categories

A. Category A licenses are those specific licenses which authorize a school, college, university, or other teaching facility to possess and use radioactive materials for instructional or research purposes.

1. A broad academic class A license is any category A license which meets the specifications of R12-1-310(A)(1).
2. A broad academic class B license is any category A license other than a broad academic class A license which meets the specifications of R12-1-310(A)(2).

3. A broad academic class C license is any category A license other than a broad academic class A or B license which meets the specifications of R12-1-310(A)(3).
4. A limited academic license is any category A license which authorizes only those radioisotopes, forms, and quantities individually specified in the license.

B. Category B licenses are those specific or general licenses which authorize the application of radioactive material or the radiation from it to a human being for medical diagnostic, therapeutic, or research purposes, or the use of radioactive material in medical laboratory testing. Except for a type B6, general medical license, the Agency shall not combine a category B license with a license of any other category.

1. A broad medical license is any category B license which meets the specifications of R12-1-310(A)(1) and meets the requirements of 12 A.A.C. 1, Article 7. A broad medical license may authorize any medical use other than teletherapy.
2. A medical materials class A license is any specific category B license other than a broad medical license, which authorizes the use of radiopharmaceuticals and sealed sources containing radioactive materials for a therapeutic purpose in quantities which require hospitalization of the patient for radiation safety purposes. The license may authorize other radioactive materials and other medical uses, except teletherapy.
3. A medical materials class B license is any specific category B license which authorizes the diagnostic or therapeutic use, other than teletherapy, of radioactive materials only in limited quantities such that the patient need not be hospitalized for radiation safety purposes.
4. A medical materials class C license is any specific category B license which authorizes possession of specified radioisotopes only in the form of sealed sources for treatment of the eye or skin or for use in diagnostic medical imaging devices.
5. A medical teletherapy license is a specific category B license which solely authorizes radioisotopes in the form of multi-curie sealed sources for use in external beam therapy. The Agency shall not combine a medical teletherapy license with any other type of category B license.
6. A general medical license is a registration of the use of radioactive material pursuant to R12-1-306(E) or R12-1-306(F). A general medical license may be combined into a broad medical, medical materials class A, or medical materials class B license.

C. Category C licenses are those specific or general licenses authorizing the use of radioactive materials in any activity other than those authorized by a category A, B, or D license. Except as specifically authorized in this Section, the Agency shall not combine a category C license with any other type of license.

1. A broad industrial class A license is any category C license which meets the specifications of R12-1-310(A)(1). The Agency may combine a broad industrial class A license with any other category C license except industrial radiography, open field irradiator, or well logging licenses.
2. A broad industrial class B license is any category C license other than a broad industrial class A license which meets the specifications of R12-1-310(A)(2). The Agency may combine a broad industrial class B license with any other category C license except industrial radiography, open field irradiator, or well logging licenses.
3. A broad industrial class C license is any category C license other than a broad industrial class A or B license which meets the specifications of R12-1-310(A)(3). The Agency may combine a broad industrial class C license with any other category C license except industrial radiography, open field irradiator, or well logging licenses.
4. A limited industrial license is a specific category C license authorizing the possession of the radioactive materials authorized in R12-1-305(A), or R12-1-306(A), (B), (D) or (G) for uses authorized in those subsections, but in quantities greater than authorized by those subsections.
5. A portable gauge license is a specific category C license which authorizes radioactive materials in the form of sealed sources for use in measuring or gauging devices designed and manufactured to be transported to the location of use. The Agency may combine a portable gauge license with any broad scope industrial license or a fixed gauge class A license.
6. A fixed gauge class A license is a specific category C license which authorizes the possession of 50 or more measuring or gauging devices containing radioactive materials, where each device is permanently mounted for use at a single location.
7. A fixed gauge class B license is a specific category C license which authorizes the possession of 1 through 49 measuring or gauging devices containing radioactive materials, where each device is permanently mounted for use at a single location.
8. A leak detector license is a specific category C license which authorizes the use of radioisotopes in the form of a gas to test hermetic seals on electronic packages.
9. A gas chromatograph license is a specific category C license which authorizes the use of radioactive materials as ionization sources in gas chromatography or electron capture devices.
10. A general industrial license means a registration of the use of a material, source, or device generally licensed pursuant to R12-1-305 or R12-1-306, except R12-1-305(C), R12-1-306(E), or R12-1-306(F).
11. An industrial radiography class A license is a specific category C license which authorizes industrial radiography using sealed radioisotope sources at specific facilities identified in the license conditions or at temporary field job sites.
12. An industrial radiography class B license is a specific category C license which authorizes industrial radiography using sealed radioisotope sources only at specific facilities identified in the license conditions.
13. An open field irradiator license is a specific category C license authorizing the use of radioisotopes in the form of sealed sources not permanently mounted within a shielding container, for irradiation of materials.
14. A self-shielded irradiator license is a specific category C license authorizing the use of radioisotopes in the form of sealed sources for irradiation of materials in a shielding device from which the sources are not removed during irradiation. The Agency may combine a self-shielded irradiator license with any broad license.

15. A well logging license is a specific category C license which authorizes the use of radioactive material in sealed or unsealed sources for wireline services or field tracer studies.
16. A research and development license is a specific category C license which authorizes a licensee to utilize radioactive material in unsealed and sealed form for industrial, scientific, or biomedical research, not including administration of radiation or radioactive material to human beings.
17. A laboratory license is a specific category C license which authorizes a licensee to perform specific in-vitro or in-vivo medical or veterinary testing, while possessing quantities of radioactive material greater than the general license quantities authorized in R12-1-306.

D. Category D licenses are the following specific radioactive material licenses. Except for type D4, general industrial; type D5, depleted uranium; type D8 and D9, health physics; and type D14, additional facilities licenses, the Agency shall not combine a category D license with any other license.

1. A distribution license is one which authorizes the commercial distribution of radioactive materials or radioisotopes in products to persons holding an appropriate general or specific license. The Agency shall ensure that a distribution license does not:
   a. Authorize distribution of radiopharmaceuticals or distribution to persons exempt from regulatory control, or
   b. Authorize any other use of the radioactive material. An appropriate category C license is required for possession of radioisotopes and their incorporation into products.
2. A nuclear pharmacy license is one which authorizes the preparation, compounding, packaging, or dispensing of radiopharmaceuticals for use by other licensees.
3. A nuclear laundry license is one authorizing the collection and cleaning of items contaminated with radioactive materials.
4. A general industrial license is a registration of a gauging device in accordance with R12-1-306(B). The Agency may combine a general industrial license with a Class A, B, or C broad industrial, limited industrial, portable gauge, or Class A or B fixed gauge license.
5. A depleted uranium general license is a registration of the use of the general license authorized pursuant to R12-1-305(C) or the use of depleted uranium as a concentrated mass or as shielding for another radiation source within a device or machine. The Agency may combine a depleted uranium general license with a medical teletherapy; Class A, B, or C broad industrial; portable gauge; Class A or B fixed gauge; Class A or B industrial radiography; or self-shielded irradiator license. For registration purposes an applicant shall follow the registration instructions in R12-1-305(C).
6. A veterinary medicine license is one which authorizes the use of radioactive materials for specific applications in veterinary medicine as authorized in the license.
7. A general veterinary medicine license is a registration of the use of the general license authorized in R12-1-306(F) in veterinary medicine.
8. A health physics class A license is one which authorizes the use of radioactive materials for performing instrument calibrations, processing leak test or environmental samples, or providing radiation dosimetry services.
9. A health physics class B license is one which authorizes only the collection, possession, and transfer of radioactive materials in the form of leak test samples for processing by others.
10. A secondary uranium recovery license is one which authorizes the extraction of natural uranium or thorium from an ore stream or tailing which is being or has been processed primarily for the extraction of another mineral. The Agency shall not combine a secondary uranium recovery license with any other license.
11. A low-level, radioactive waste disposal facility license is a license that is issued for a “disposal facility,” as that term is used in R12-1-439 and R12-1-442, which has a closure or long-term care plan and is constructed and operated according to the requirements in 10 CFR 61, 2003 edition, published January 1, 2003, by the Office of the Federal Register, National Archives and Records Administration, Washington, D.C. 20408, which is incorporated by reference and on file with the Agency, and contains no future editions or amendments.
12. A waste processor class A license is one authorizing the incineration, compaction, repackaging, or any other treatment or processing of low-level radioactive waste prior to transfer to another person authorized to receive or dispose of the waste. The Agency shall not combine a waste processor class A license with any other license.
13. A waste processor class B license is one which authorizes a waste broker to receive prepackaged, low-level radioactive waste from other licensees; combine the waste into shipments; and transfer the waste without treating or processing the waste in any manner and without repackaging except to place damaged or leaking packages into overpacks. The Agency shall not combine a waste processor class B license with any other license.
14. An additional facility license is an endorsement, by license condition to an existing specific license, authorizing one or more additional separate facilities where radioactive material may be stored or used for a period exceeding six months.
15. A possession-only license is a license of any other category which authorizes only the possession in storage, but no use of, the authorized materials. A license which has been suspended as an enforcement action is not considered a possession-only license.
16. A reciprocal license is the registration of the general license authorized by R12-1-320. This license is subject to a special fee as provided by R12-1-1307 but is exempt from annual fees.
17. Reserved
18. An “unclassified” radioactive material license is one authorizing radioisotopes, physical or chemical forms, possession limits, or uses not included in any other type of license specified in this Section.
19. A NORM commercial disposal site license is one that authorizes the receipt of waste material contaminated with naturally occurring radioactive material from other licensees for permanent disposal, provided the concentration of the radioactive material does not exceed 74kBq (2,000 picocuries)/gram.

E. Category E registrations are those that register the possession of x-ray machine(s) under 12 A.A.C. 1, Article 2. The Agency shall not combine Category E registrations with any other registration.

1. An X-ray machine class A registration is one authorizing the possession of X-ray machines in a hospital or other facility offering inpatient care.
2. An X-ray machine class B registration is one authorizing the possession of X-ray machines in a medical, osteopathic, or chiropractic office or clinic not offering inpatient care; or the possession of X-ray machines in a school, college, university, or other teaching facility.
3. An X-ray machine class C registration is one authorizing the possession of X-ray machines in dental, podiatry, and veterinarian offices or clinics.
4. An industrial radiation machine registration is one authorizing the possession of X-ray machines, or the possession of particle accelerators not capable of producing a high radiation area, in a nonmedical facility.
5. An accelerator facility registration is one authorizing the possession and operation of one or more particle accelerators of any kind capable of accelerating any particle and producing a high radiation area.
6. A radiation machine, "other," is one authorizing possession or use of an ionizing radiation machine not included in any other category specified in subsection (E) of this Section.

F. Category F registrations are those that register nonionizing radiation producing sources regulated under 12 A.A.C. 1, Article 14. The Agency shall not combine Category F registrations with any other registration.

1. A tanning registration authorizes the commercial operation of any number of tanning booths, beds, cabinets, or other devices in a single establishment.
2. A Class A laser registration authorizes the operation of one to 10 laser devices subject to R12-1-1433.
3. A Class B laser registration authorizes the operation of 11 to 49 laser devices subject to R12-1-1433.
4. A Class C laser registration authorizes operation of 50 or more laser devices subject to R12-1-1433.
5. A laser light show registration authorizes the operation of a laser device subject to R12-1-1441.
6. A medical laser registration authorizes the operation of one or more laser devices subject to R12-1-1440.
7. A Class II surgical device registration authorizes the operation of one or more Class II surgical devices subject to R12-1-1438. A device is designated as a Class II surgical device by the USFDA and is labeled as such by the manufacturer.
8. A medical radiofrequency device registration authorizes the operation of one or more medical radiofrequency devices.
9. A class A industrial radiofrequency device registration authorizes the operation of one to five radiofrequency heat sealers or industrial microwave ovens.
10. A class B industrial radiofrequency device registration authorizes the operation of six to 20 radiofrequency heat sealers or industrial microwave ovens.
11. A class C industrial radiofrequency device registration authorizes the operation more than 20 radiofrequency heat sealers or industrial microwave ovens.
12. An "other" nonionizing radiation device authorizes the operation of a nonionizing radiation device or other device not included in any other category specified in subsection (F).

Historical Note

Adopted effective November 19, 1982 (Supp. 82-6). Amended effective November 28, 1983 (Supp. 83-6). Section repealed, new Section adopted effective November 5, 1993 (Supp. 93-4). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 2122, effective July 3, 2004 (Supp. 04-2). Amended by final rulemaking at 11 A.A.R. 978, effective April 3, 2005 (05-1). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

R12-1-1303. Fee for Initial License and Initial Registration

An applicant shall remit for a new license or new registration the appropriate fee as prescribed in R12-1-1306.

Historical Note

Adopted effective November 19, 1982 (Supp. 82-6). Amended effective November 28, 1983 (Supp. 83-6). Amended subsections (A), (C), and (D) effective November 28, 1986 (Supp. 86-6). Section repealed, new Section adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

R12-1-1304. Annual Fees for Licenses and Registrations

A. Each license or registration issued by the Agency shall identify the category by a letter and number corresponding to the appropriate subsection of R12-1-1302 or category type listed in R12-1-1306.

B. Except for types D16 and D17, each licensee or registrant shall submit payment of the annual fee in the amount prescribed in R12-1-1306(A) on or before January 1 of each year. This single annual fee will cover any and all renewals, amendments, and regular inspections of the license during the forthcoming calendar year.

C. If a licensee or registrant fails to pay the annual fee by January 1, the license is not current.

D. If a licensee or registrant fails to pay the annual fee by April 1, the Agency shall apply administrative sanction provisions of 12 A.A.C. 1, Article 12.

E. A licensee who is required to pay an annual fee under this Article may qualify as a small entity. If a licensee qualifies as a small entity and provides the Agency with proper certification along with its annual fee payment, the licensee may pay reduced annual fees as shown in Table 1 to this Article. Failure to file a small entity certification in a timely manner may result in the denial of any refund.

Historical Note

Adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

R12-1-1305. Method of Payment

A. An applicant licensee or registrant shall pay fees by check or money order, payable to the "State of Arizona" at the address shown on the application, license, registration, or renewal notice.

B. Once a license or registration has been issued, no portion of the application fee or any annual fee will be refunded.

Historical Note

Adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

R12-1-1306. Table of Fees

A. The application and annual fee for each category and type are shown in Table 13-1.

Table 13-1

Category	Type	Annual fee
A1.	Broad academic class A	$5,800
A2.	Broad academic class B	$5,800
A3.	Broad academic class C	$5,800
A4.	Limited academic	$1,000
B1.	Broad medical	$11,000
B2.	Medical materials class A	$1,900
B3.	Medical materials class B	$1,900
B4.	Medical materials class C	$1,900
B5.	Medical teletherapy	$5,200
B6.	General medical	$250
C1.	Broad industrial class A	$11,400
C2.	Broad industrial class B	$11,400
C3.	Broad industrial class C	$3,200
C4.	Limited industrial	$700
C5.	Portable gauge	$1,000
C6.	Fixed gauge class A	$1,000
C7.	Fixed gauge class B	$1,000
C8.	Leak detector	$1,330
C9.	Gas chromatograph	$1,000
C10.	General industrial	No Fee
C11.	Industrial radiography class A	$5,500
C12.	Industrial radiography class B	$5,500
C13.	Open field irradiator	$3,000
C14.	Self-shielded irradiator	$1,500
C15.	Well logging	$2,000
C16.	Research and development	$2,100
C17.	Laboratory	$1,000
D1.	Distribution	$2,600
D2.	Nuclear pharmacy	$4,600
D3.	Nuclear laundry	$10,300
D4.	General industrial (with fee)	$300
D5.	General depleted uranium	$200
D6.	Veterinary medicine	$1,000
D7.	General veterinary medicine	$200
D8.	Health physics class A	$3,200
D9.	Health physics class B	$1,000
D10.	Secondary uranium recovery	$5,100
D11.	Low-level radioactive waste disposal site	(3)
D12.	Waste processor class A	$4,600
D13.	Waste processor class B	$3,600
D14.	Additional storage and use site	(1)

D15.	Possession only	(2)
D16.	Reciprocal	(3)
D17.	Reserved	
D18.	Unclassified	Full Cost
D19.	NORM commercial disposal site	$600,000
E1.	X-ray machine class A (per tube)	$75
E2.	X-ray machine class B (per tube)	$51
E3.	X-ray machine class C (per tube)	$42
E4.	Industrial radiation machine (per device)	$42
E5.	Accelerator facility	$750
E6.	Other ionizing radiation machine	Full Cost
F1.	Tanning device (per device)	$28
F2.	Class A (1 to 10 laser devices)	$175
F3.	Class B (11 to 49 laser devices)	$408
F4.	Class C (50 or more laser devices)	$699
F5.	Laser light show or laser demonstration	$408
F6.	Medical laser (per laser device)	$47
F7.	Class II surgical (per device)	$47
F8.	Medical RF (per device)	$47
F9.	Class A industrial (1 to 5 radiofrequency devices)	$70
F10.	Class B industrial (6 to 20 radiofrequency devices)	$210
F11.	Class C industrial more than 20 radiofrequency devices)	$349
F12.	Other nonionizing radiation device or other device	Full Cost

Notes: (1) An additional 30% of the annual base fee is added to the annual base fee for each additional site.
(2) The fee is 50% of the annual base fee for the category under which the radioactive material will be stored.
(3) See R12-1-1307.

B. The application fee for a licensee or registrant is the annual fee as shown in R12-1-1306. “Full Cost” is based on professional personnel time for preparation, travel, onsite inspection, any reports, review of findings, and preparation of the license or registration or denial charged at $99 per hour and mileage charged at 44.5¢ per mile. The Agency shall assess the licensee or registrant 90% of the estimated full cost of issuing the license or registration. The Agency will assess for any remaining costs when it is prepared to issue the license, registration, denial, or if Agency costs for the requested activity exceed $10,000.

C. The annual fee for a licensee or registrant for which the scheduled fee is “Full Cost” is based on professional personnel time for preparation, travel, onsite inspection, preparation of reports, review of findings, and preparation for any inspections or completion of any amendments to the license, registration or denials charged at $99 per hour and mileage charged at 44.5¢ per mile for the preceding 12 months.

Historical Note

Amended effective November 5, 1993 (Supp. 93-4). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 12 A.A.R. 75, effective February 7, 2006 (Supp. 05-4). Amended by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

R12-1-1307. Special License Fees

A. The fee for a Type D16 license providing reciprocal recognition under R12-1-320 of a radioactive materials license issued by the U.S. NRC or another state is half of the annual fee for an Arizona license of the appropriate type. The fee is due and payable at the time reciprocity is requested, and the general license does not become current until the fee is paid.

B. For a low-level radioactive waste disposal site the initial application fee is $6,000,000. The annual fee for the second through fifth years is $6,000,000. The Agency shall promulgate a new fee rule for years subsequent to year five. Based on data gathered during the first five years, the Agency shall set a reasonable fee after consideration of the following factors:

1. Unrecovered costs which the Agency may charge under A.R.S. § 30-654(B)(18).
2. Actual costs incurred by the Agency.

Historical Note

Adopted effective November 5, 1993 (Supp. 93-4). Amended effective January 2, 1996 (Supp. 96-1). Amended by final rulemaking at 5

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A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

R12-1-1308. Fee for Requested Inspections

A. A licensee or registrant may request an inspection of its facility at any time. The Agency shall assess the licensee or registrant the full cost of the inspection, based on personnel time for preparation, travel, onsite inspection, review of findings, and preparation of a report, charged at $99 per hour and mileage charged at 44.5¢ per mile.

B. The fee specified in this Section does not apply to:
1. Regular inspections as scheduled by the Agency,
2. Enforcement reinspections conducted to ensure the correction of violations or safety hazards, or
3. Inspections requested by workers pursuant to R12-1-1007.

Historical Note

Adopted effective November 5, 1993 (Supp. 93-4). Amended by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2). Amended by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

R12-1-1309. Abandonment of License or Registration Application

A. Any license or registration application for which the applicant has been provided a written notification of deficiencies in the application and for which the applicant does not make a written attempt to supply the requested information or request an extension in writing within 90 days of the date of the written notice of deficiencies, is considered abandoned and will not be processed.

B. If an applicant does not act in the time-frame specified in subsection (A), the applicant shall submit a new application with the appropriate fee.

Historical Note

New Section adopted by final rulemaking at 5 A.A.R. 1817, effective May 12, 1999 (Supp. 99-2).

Table 1. Small Entity Fees[1]

Small Businesses Not Engaged in Manufacturing and Small Not-for-profit Organizations (Gross Annual Receipts, three-year average):	
>$6.5 million	Pay the fee listed in R12-1-1306
$350,000 to $6.5 million	$2,200
<$350,000	$500
Manufacturing Entities that Have an Annual Average of 500 Employees or Less:	
>500 employees	Pay the fee listed in R12-1-1306
35 to 500 employees	$2,200
<35 employees	$500
Small Government Jurisdictions (including publicly supported educational institutions) (Population in Jurisdiction):	
>50,000	Pay the fee listed in R12-1-1306
20,000 to 50,000	$2,200
<20,000	$500
Educational Institutions that Are Not State or Publicly Supported, and Have 500 Employees or Less:	
>500 employees	Pay the fee listed in R12-1-1306
35 to 500 employees	$2,200
<35 employees	$500

1. A licensee who seeks to establish status as a small entity for the purpose of paying the annual fees required under R12-1-1304 as shown in R12-1-1306 must file a certification statement with the Agency each year. The licensee must file the required certification on Agency Form 333 for each license under which it was billed. Agency Form 333 can be accessed through the Agency web site at http://www.azrra.gov. For licensees who cannot access the Agency web site, Agency Form 333 may be obtained by writing to the Agency or by telephoning the Agency at (602) 255-4845, or by e-mailing the Agency at webcontactform@arrawebsite.com.

Historical Note

New Table made by exempt rulemaking at 14 A.A.R. 4243, effective November 17, 2008 (Supp. 08-4).

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ARTICLE 15. TRANSPORTATION

R12-1-1501. Requirement for License

A. A person shall not transport radioactive material or deliver radioactive material to a carrier for transport unless the person is authorized in a general or specific license issued by the Agency or exempt under R12-1-103(A).

B. This Article applies to any licensee to transfer licensed material if the licensee delivers that material to a carrier for transport, transports the material outside the site of usage as specified in the license, or transports that material on public highways. No provision of this Article authorizes possession of licensed material.

Historical Note

New Section made by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3).

R12-1-1502. Definitions

Terms defined in Article 1 have the same meaning when used in this Article.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1503. Transportation of Licensed Material

Each licensee that transports licensed material outside the site of usage, as specified in an Agency license, or where transport is on public highways, or that delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the U.S. Department of Transportation regulations listed in 10 CFR 71.5, revised January 1, 2008, incorporated by reference and available under R12-1-101. This incorporated material contains no future editions or amendments.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Repealed effective June 13, 1997 (Supp. 97-2). New Section made by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1504. Intrastate Transportation and Storage of Radioactive Materials

A. A general license is issued to:

1. Any common or contract carrier not exempt under R12-1-103 to receive, possess, transport, and store radioactive material in the regular course of carriage for others or to store radioactive material incident to the transport activities, provided the transportation or storage is in accordance with applicable requirements for the mode of transport of the U.S. Department of Transportation, 49 CFR 171 through 180, revised October 1, 2007, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
2. Any private carrier or licensee who transports and stores radioactive material, provided the transportation and storage are in accordance with the requirements applicable to the mode of transport, of the U.S. Department of Transportation, 49 CFR 171 through 180, revised October 1, 2007, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

B. Any notification of incidents required under federal regulations in subsection (A) shall also be filed with, or made to, the Agency.

C. A person who transports or stores radioactive material according to the general license in this Section is exempt from the requirements of Article 4 and Article 10 of this Chapter to the extent that this Section applies to transportation of the radioactive material.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1505. Storage of Radioactive Material in Transport

A. A carrier shall not store, for any period in excess of 72 hours, any package that contains radioactive material bearing a Department of Transportation Yellow II or Yellow III label, unless the radioactive material is stored in an area other than, and not adjacent to, any food storage area or area that is normally occupied by an individual.

B. A carrier shall not store a package that contains radioactive material with other hazardous materials, except as authorized by U.S. Department of Transportation regulations in 49 CFR 177.848, revised October 1, 2007, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. Whenever a package containing radioactive material is stored in excess of 48 hours, the storage area shall be conspicuously posted according to the requirements of Article 4.

D. When transit is interrupted and storage is required for an extended period, the following requirements apply:

1. When radioactive materials are stored for longer than 48 hours during transit, the carrier shall notify the local fire department and provide the following information:
   a. Warehouse location and carrier name and telephone number;
   b. Radionuclide(s);
   c. Activity per package in curies or becquerels and number of packages;
   d. Form (solid, metallic, liquid, gas);
   e. Flammability (if flammable);

f. Specific location in warehouse;
g. Estimated date of departure;
h. Toxicity (if toxic).

2. If the radioactive material will be, or has been in storage for longer than 90 days, the carrier shall notify the Agency in writing and include the information required in subsection (D)(1).
3. The licensee or carrier shall immediately notify the Department of Public Safety of an accident involving radioactive material.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1506. Preparation of Radioactive Material for Transport

A licensee shall not deliver any package that contains radioactive material to a carrier for transport or transport radioactive material, unless the licensee:

1. Complies with the U.S. Department of Transportation packaging, monitoring, manifesting, marking, and labeling regulations applicable to the mode of transport, (Contained in 49 CFR 171 through 180, revised October 1, 2007, or 39 CFR 111.1, revised July 1, 2007, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.); and
2. Establishes procedures for safely opening and closing packages in which radioactive material is transported; and
3. Prior to delivery of a package to a carrier for transport, assures that:
   a. The package is properly closed, and
   b. Any special instructions needed to safely open the package are made available to the consignee.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 10 A.A.R. 4458, effective December 4, 2004 (Supp. 04-4). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1507. Packaging Quality Assurance

A. A licensee that transports radioactive material in the course of business or delivers radioactive material to a carrier for transport in a package for which a license, certificate of compliance, or other approval has been issued by the Nuclear Regulatory Commission, or meets the applicable criteria (10 CFR 71, Subpart H, revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.), shall establish, maintain, and execute the quality assurance program specified in 10 CFR 71, Subpart H.

B. In addition to the requirements in subsection (A) for a quality assurance program, a licensee shall verify by procedures such as checking or inspection, that deficiencies or defective material or equipment relative to the shipment of packages containing radioactive material are promptly identified and corrected.

C. Before the first use of any Type B packaging, a licensee shall obtain approval of its quality assurance program by the Agency.

D. A licensee shall maintain sufficient written records to demonstrate compliance with the quality assurance program. Records of quality assurance pertaining to the use of a Type B package for shipment of radioactive material shall be maintained for three years after the package is used for a shipment.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1508. Advance Notification of Nuclear Waste Transportation

A. Prior to the transport of any nuclear waste, as defined in Article 1, outside of the confines of the licensee's facility or other place of use or storage, or prior to the delivery of any nuclear waste to a carrier for transport, each licensee shall provide advance notification of such transport to the Agency.

B. Each advance notification required in subsection (A) above shall contain the following information:

1. The name, address, and telephone number of the shipper, carrier, and receiver of the shipment;
2. A description of the nuclear waste contained in the shipment as required by 49 CFR 172.202 and 172.203(d) (Revised October 1, 2007, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
3. The point of origin of the shipment and the seven-day period during which departure of the shipment will occur;
4. The seven-day period during which arrival of the shipment at state boundaries will occur;
5. The destination of the shipment, and the seven-day period during which arrival of the shipment will occur; and
6. A point of contact with a telephone number for current shipment information.

C. The licensee shall make the notification required by subsection (A) in writing to the Agency. A notification delivered by mail must be postmarked at least seven days before the beginning of the seven-day period during which departure of the shipment is estimated to occur. The licensee shall maintain a copy of the notification for one year.

D. The licensee shall notify the Agency of any changes in shipment plans, including cancellations, rerouting, or rescheduling, provided pursuant to subsection (A). Such notification shall be by telephoning the Agency. The licensee shall maintain for one year a record of the name of the individual contacted.

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Amended effective June 13, 1997 (Supp. 97-2). Amended by final rulemaking at 9 A.A.R. 1126, effective May 9, 2003 (Supp. 03-1). Amended by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1509. General License: Plutonium-Beryllium Special Form Material

A. A general license is issued to any licensee of the Agency to transport fissile material in the form of plutonium-beryllium (Pu-Be) special form sealed sources, or to deliver Pu-Be sealed sources to a carrier for transport, if the material is shipped in accordance with this Article. This material must be contained in a Type A package. The Type A package must also meet the DOT requirements of 49 CFR 173.417(a), revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

B. The general license applies only to a licensee who has a quality assurance program approved by the Agency as satisfying the provisions of R12-1-1507.

C. The general license applies only when a package's contents:
1. Contain no more than a Type A quantity of radioactive material; and
2. Contain less than 1000 g of plutonium, provided that: plutonium-239, plutonium-241, or any combination of these radionuclides, constitutes less than 240 g of the total quantity of plutonium in the package.

D. The general license applies only to packages labeled with a CSI which:
1. Has been determined in accordance with subsection (E) of this Section;
2. Has a value less than or equal to 100; and
3. For a shipment of multiple packages containing Pu-Be sealed sources, the sum of the CSIs must be less than or equal to 50 (for shipment on a nonexclusive use conveyance) and less than or equal to 100 (for shipment on an exclusive use conveyance).

E. The value for the CSI must be greater than or equal to the number calculated by the following equation:
1. CSI=10[(grams of ^{239}Pu + grams of ^{241}Pu)/24],
2. The calculated CSI must be rounded up to the first decimal place.

Historical Note

New Section made by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (Supp. 12-3).

R12-1-1510. Packaging

A. A general license is issued to any licensee to transport, or to deliver to a carrier for transport, licensed material in a package for which a license, certificate of compliance, or other approval has been issued by the NRC.
1. This general license applies only to a licensee that has a quality assurance program approved by the Agency as satisfying R12-1-1507;
2. This general license applies only to a licensee that:
   a. Has a copy of the license, certificate of compliance, or other approval of the package, and has the drawings and other documents referenced in the approval relating to the use and maintenance of the packaging and to the actions to be taken before shipment;
   b. Complies with the terms and conditions of the license, certificate, or other approval, as applicable, and the applicable requirements of this Article; and
   c. Before the licensee's first use of the package, submits in writing to the Agency the licensee's name, license number, and the package identification number specified in the package approval.
3. This general license applies only when the package approval authorizes use of the package under this general license.
4. For a Type B or fissile material package, the design of which was approved by NRC before April 1, 1996, the general license is subject to the additional restrictions of subsection (B).

B. Type B packages.
1. A Type B package previously approved by NRC but not designated as B(U) or B(M) in the identification number of the NRC Certificate of Compliance, may be used under the general license of subsection (A) with the following additional conditions:
   a. Fabrication of the packaging is satisfactorily completed by August 31, 1986, as demonstrated by application of its model number in accordance with 10 CFR 71.85(c) (Revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
   b. A package that is used for a shipment to a location outside the United States is subject to multilateral approval, as defined in 49 CFR 173.403 (Revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.); and
   c. A serial number that uniquely identifies each package which conforms to the approved design and is assigned to, and legibly and durably marked on, the outside of each package.
   d. The licensee shall ascertain that there are no cracks, pinholes, uncontrolled voids, or other defects that could significantly reduce the effectiveness of the packaging;

e. Where the maximum normal operating pressure will exceed 35 kPa (5 lbf/in^2) gauge, the licensee shall test the containment system at an internal pressure at least 50 percent higher than the maximum normal operating pressure, to verify the capability of that system to maintain its structural integrity at that pressure; and

2. A Type B(U) package, a Type B(M) package, a low specific activity (LSA) material package or a fissile material package, previously approved by the NRC but without the "-85" designation in the identification number of the NRC certificate of compliance, may be used under the general license of subsection (A) with the following additional conditions:
   a. Fabrication of the packaging is satisfactorily completed by April 1, 1999 as demonstrated by application of its model number in accordance with 10 CFR 71.85(c) (Revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
   b. A package that is used for a shipment to a location outside the United States is subject to multilateral approval as defined in 49 CFR 173.403 (Revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.); and
   c. A serial number which uniquely identifies each package which conforms to the approved design and is assigned to, and legibly and durably marked on, the outside of each package.
3. A licensee may modify the design and authorized contents of a Type B package, or a fissile material package, previously approved by NRC, provided:
   a. The modifications of a Type B package are not significant with respect to the design, operating characteristics, or safe performance of the containment system, when the package is subjected to the tests specified in 10 CFR 71.71 and 71.73 (Revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
   b. The modifications of a fissile material package are not significant, with respect to the prevention of criticality, when the package is subjected to the tests specified in 10 CFR 71.71 and 71.73 (Revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.); and
   c. The modifications to the package satisfy the requirements of this Section.
4. The NRC will revise the package identification number to designate previously approved package designs as B(U), B(M), AF, BF, or A as applicable, and with the identification number suffix "-85" after receipt of an application demonstrating that the design meets the requirements of this Section.
5. For purposes of this Section, package types are defined in 10 CFR 71.4, revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. A general license is issued to any licensee of the Agency to transport fissile material, or to deliver to a carrier for transport, licensed material in a specification container for fissile material or for a Type B quantity of radioactive material as specified in 49 CFR 173 and 178 (Revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.), if the following requirements are met:

1. The licensee shall maintain a quality assurance program approved by the Agency as satisfying R12-1-1507.
2. The licensee shall:
   a. Maintain a copy of the specification; and
   b. Comply with the terms and conditions of the specification and the applicable requirements in 10 CFR 71, Subparts A, G, and H, revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
3. The licensee may not use the specification container for a shipment to a location outside the United States, except by multilateral approval, as defined in 49 CFR 173.403, revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
4. The general license applies only when a package's contents:
   a. Contain no more than a Type A quantity of radioactive material; and
   b. Contain less than 500 total grams of beryllium, graphite, or hydrogenous material enriched in deuterium.
5. The general license applies only to packages containing fissile material that are labeled with a CSI which:
   a. Has been determined in accordance with Subsection (E) of this Section;
   b. Has a value less than or equal to 10; and
   c. For a shipment of multiple packages containing fissile material, the sum of the CSIs must be less than or equal to 50 (for shipment on a nonexclusive use conveyance) and less than or equal to 100 (for shipment on an exclusive use conveyance).
6. The CSI value must meet the following requirements:
   a. The value for the CSI must be greater than or equal to the number calculated by the following equation: CSI=10[(grams of ^{235}U/X) + (grams of ^{235}U/Y) + grams of ^{235}U/Z)];
   b. The calculated CSI must be rounded up to the first decimal place;
   c. The values of X, Y, and Z used in the CSI equation must be taken from Tables 71–1 or 71–2 as appropriate located in 10 CFR 71.22, (revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
   d. If Table 71–2 is used to obtain the value of X, then the values for the terms in the equation for uranium-233 and plutonium must be assumed to be zero; and
   e. Table 71–1 values for X, Y, and Z must be used to determine the CSI if:
      i. Uranium-233 is present in the package;
      ii. The mass of plutonium exceeds 1 percent of the mass of uranium-235;

iii. The uranium is of unknown uranium-235 enrichment or greater than 24 weight percent enrichment; or

iv. Substances having a moderating effectiveness (i.e., an average hydrogen density greater than H_2O) (e.g., certain hydrocarbon oils or plastics) are present in any form, except as polyethylene used for packing or wrapping.

D. Foreign packaging.

1. A general license is issued to any licensee of the Agency to transport, or to deliver to a carrier for transport, licensed material in a package the design of which has been approved in a foreign national competent authority certificate that has been revalidated by the Federal Department of Transportation as meeting the applicable requirements of 49 CFR 171.12, revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.
2. Except as otherwise provided in this Section, the general license applies only to a licensee who has a quality assurance program approved by the Agency as satisfying the applicable provisions of R12-1-1507.
3. This general license applies only to:
   a. Shipments made to or from locations outside the United States.
   b. A licensee that:
      i. Has a copy of the applicable certificate, the revalidation, and the drawings and other documents referenced in the certificate, relating to the use and maintenance of the packaging and to the actions to be taken before shipment; and
      ii. Complies with the terms and conditions of the certificate and revalidation, and with the applicable requirements in 10 CFR 71, Subparts A, G, and H, revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments. With respect to the quality assurance provisions of Subpart H of the regulations, the licensee is exempt from design, construction, and fabrication requirements.

E. Assumptions as to unknown properties. When the isotopic abundance, mass, concentration, degree of irradiation, degree of moderation, or other pertinent property of fissile material in any package is not known, the licensee shall package the fissile material as if the unknown properties have credible values that will cause the maximum neutron multiplication.

F. Routine determination before each shipment of licensed material shall ensure that the package with its contents satisfies the applicable requirements of this Article and of the license. The licensee shall determine that:

1. The package is proper for the contents to be shipped;
2. The package is in unimpaired physical condition except for superficial defects such as marks or dents;
3. Each closure device of the packaging, including any required gasket, is properly installed and secured and free of defects;
4. Any system for containing liquid is adequately sealed and has adequate space or other specified provision for expansion of the liquid;
5. Any pressure relief device is operable and set in accordance with written procedures;
6. The package has been loaded and closed in accordance with written procedures;
7. For fissile material, any moderator or neutron absorber, if required, is present and in proper condition;
8. Any structural part of the package that could be used to lift or tie down the package during transport is rendered inoperable for that purpose, unless it satisfies the design requirements of 10 CFR 71.45 (revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
9. The level of non-fixed (removable) radioactive contamination on the external surfaces of each package offered for shipment is as low as reasonably achievable, and within the limits specified in DOT regulations in 49 CFR 173.443 (revised October 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.);
10. External radiation levels around the package and around the vehicle, if applicable, will not exceed the limits specified in 10 CFR 71.47 (revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.), at any time during transportation; and
11. Accessible package surface temperatures will not exceed the limits specified in 10 CFR 71.43(g) (revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.), at any time during transportation.

Historical Note

New Section made by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2). Amended by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (12-3).

R12-1-1511. Air Transport of Plutonium

A. Notwithstanding the provisions of any general licenses and notwithstanding any exemptions stated directly in this Section or included indirectly by citation of 49 CFR 107, and 171 through 180, previously incorporated in this Article, as may be applicable, the licensee shall ensure that plutonium in any form, whether for import, export, or domestic shipment, is not transported by air or delivered to a carrier for air transport unless:

1. The plutonium is contained in a medical device designed for individual human application; or
2. The plutonium is contained in a material in which the specific activity is less than or equal to the activity concentration values for Plutonium specified in 10 CFR 71, Appendix A, Table A-2 (Revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.), and in which the radioactivity is essentially uniformly distributed; or
3. The plutonium is shipped in a single package containing no more than an A2 quantity of plutonium in any isotope or form, and is shipped in accordance with R12-1-1503 and 10 CFR 71.5 (Revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.); or

4. The plutonium is shipped in a package specifically authorized for the shipment of plutonium by air in the Certificate of Compliance for that package issued by the NRC.

B. Nothing in subsection (A) is to be interpreted as removing or diminishing the requirements of 10 CFR 73.24, January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

C. For a shipment of plutonium by air that is subject to subsection (A)(4), the licensee shall, through special arrangement with the carrier, require compliance with 49 CFR 175.704, revised October 1, 2007, incorporated by reference, and available under R12-1-101. This U.S. Department of Transportation regulation is applicable to the air transport of plutonium. This incorporated material contains no future editions or amendments.

Historical Note

New Section made by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1512. Advance Notification of Shipment of Irradiated Reactor Fuel and Nuclear Waste

A licensee shall provide advance notification to the Governor, or the Director of the Agency, of the shipment of licensed material as specified in 10 CFR 71.97, revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

Historical Note

New Section made by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

R12-1-1513. Opening Instructions

Before delivery of a package to a carrier for transport, the licensee shall ensure that any special instructions needed to safely open the package have been sent to, or otherwise made available to, the consignee for the consignee's use in accordance with 10 CFR 20.1906(e) revised January 1, 2010, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

Historical Note

New Section made by final rulemaking at 18 A.A.R. 1895, effective September 10, 2012 (12-3).

R12-1-1514. Reserved

R12-1-1515. Exemption for Low-level Radioactive Materials

A licensee is exempt from all the requirements of 10 CFR 71 with respect to shipment or carriage of the low-level materials listed in 10 CFR 71.14(a), revised January 1, 2008, incorporated by reference, and available under R12-1-101. This incorporated material contains no future editions or amendments.

Historical Note

New Section made by final rulemaking at 15 A.A.R. 1023, effective August 1, 2009 (Supp. 09-2).

Appendix A. Repealed

Historical Note

Adopted effective December 20, 1985 (Supp. 85-6). Repealed effective June 13, 1997 (Supp. 97-2).

ARTICLE 16. RESERVED

RMP-0078

The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

30-651. Definitions

In this chapter, unless the context otherwise requires:

1. "Agency" means the radiation regulatory agency.
2. "Atomic energy" means all forms of energy released in the course of nuclear transformations, nuclear fission and nuclear fusion.
3. "Board" means the radiation regulatory hearing board.
4. "By-product material" means any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material and the tailings or wastes produced by the extraction or concentration of uranium ore thorium from any ore processed primarily for its source material content.
5. "Diagnostic mammography" means an X-ray imaging of the breast performed on persons who have symptoms or physical signs indicative of breast disease.
6. "Director" means the director of the radiation regulatory agency.
7. "Electronic product" means:

(a) Any machine or device designed to produce a beam of ionizing radiation as the result of the operation of an electronic circuit or component.

(b) Class IIIb and IV lasers, as classified by the United States food and drug administration.

(c) Radio frequency heaters, dryers and sealers.

(d) Any device employing a source of radio frequency electromagnetic radiation within a protective enclosure and used for heating or curing materials in industrial or manufacturing applications and in restaurants or food vending establishments. This subdivision does not include microwave ovens manufactured as consumer products and used for home food preparation.

(e) Microwave and shortwave diathermy.

(f) Mercury vapor, metal halide and high-pressure sodium lamps used for commercial lighting and industrial manufacturing processes or sunlamps used in commercial establishments for the intentional irradiation of humans.

(g) Therapeutic ultrasound devices.

(h) Industrial ultrasonic welders and sealers.

8. "Electronic product radiation" means:

(a) Any ionizing or nonionizing electromagnetic or particulate radiation which is emitted from an electronic product.

(b) Any sonic, infrasonic or ultrasonic wave which is emitted from an electronic product as the result of the operation of an electronic circuit in the product.

9. "Ionizing radiation" means gamma rays and X-rays, alpha and beta particles, high speed electrons, neutrons, protons and other nuclear particles or rays.
10. "Operation" means adjustments or procedures by the user required for the equipment to perform its intended functions.
11. "Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency or political subdivision of this state, or any other

state or political subdivision or agency of such state, and any legal successor, representative, agent, or agency of the foregoing, other than the United States nuclear regulatory commission or any successor, and other than federal government agencies and any other entities licensed by the United States nuclear regulatory commission or any successor.
12. "Radiation" means:
(a) Ionizing radiation including gamma rays, X-rays, alpha and beta particles, high speed electrons, neutrons, protons and other nuclear particles or rays.
(b) Any electromagnetic radiation which may be produced by the operation of an electronic product.
(c) Any sonic, ultrasonic or infrasonic wave which may be produced by the operation of an electronic product.
13. "Radiation machine" means any manufactured devices or products producing any of the following:
(a) X-rays for medical, industrial, research and development or educational purposes.
(b) Electromagnetic radiation from an electronic product.
(c) Laser devices classified as class IIIb or IV by the United States food and drug administration.
(d) Diathermy machines.
14. "Radioactive material" means any material or materials, solid, liquid or gaseous, that emit radiation spontaneously.
15. "Screening mammography" means X-ray imaging of the breast of asymptomatic persons.
16. "Service" means major adjustments or repairs, usually requiring specialized training or tools, or both.
17. "Source material" means:
(a) Uranium, thorium or any other material which the governor declares by order to be source material after the United States nuclear regulatory commission or any successor has determined the material to be source material.
(b) Ores containing one or more of the materials, as provided in subdivision (a) of this paragraph, in such concentration as the governor declares by order to be source material after the United States nuclear regulatory commission or any successor has determined the material in such concentration to be source material.
18. "Sources of radiation" means radioactive materials, radiation machines and electronic products.
19. "Special nuclear material" means:
(a) Plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235 and any other material which the governor declares by order to be special nuclear material after the United States nuclear regulatory commission or any successor has determined the material to be such, but does not include source material.
(b) Any material artificially enriched by any of the material provided in subdivision (a) of this paragraph, but does not include source material.

30-654. Powers and duties of the agency
A. The agency may:
1. Accept grants or other contributions from the federal government or other sources, public or private, to be used by the agency to carry out any of the purposes of this chapter.
2. Do all things necessary, within the limitations of this chapter, to carry out the powers and duties of the agency.

3. Conduct an information program, including but not limited to:
(a) Providing information on the control and regulation of sources of radiation and related health and safety matters, on request, to members of the legislature, the executive offices, state departments and agencies and county and municipal governments.
(b) Providing such published information, audiovisual presentations, exhibits and speakers on the control and regulation of sources of radiation and related health and safety matters to the state's educational system at all educational levels as may be arranged.
(c) Furnishing to citizen groups, on request, speakers and such audiovisual presentations or published materials on the control and regulation of sources of radiation and related health and safety matters as may be available.
(d) Conducting, sponsoring or cosponsoring and actively participating in the professional meetings, symposia, workshops, forums and other group informational activities concerned with the control and regulation of sources of radiation and related health and safety matters when representation from this state at such meetings is determined to be important by the agency.
B. The agency shall:
1. Regulate the use, storage and disposal of sources of radiation.
2. Establish procedures for purposes of selecting any proposed permanent disposal site located within this state for low level radioactive waste.
3. Coordinate with the department of transportation and the corporation commission in regulating the transportation of sources of radiation.
4. Assume primary responsibility for and provide necessary technical assistance to handle any incidents, accidents and emergencies involving radiation or sources of radiation occurring within this state.
5. Adopt rules deemed necessary to administer this chapter in accordance with title 41, chapter 6.
6. Adopt uniform radiation protection and radiation dose standards to be as nearly as possible in conformity with, and in no case inconsistent with, the standards contained in the regulations of the United States nuclear regulatory commission and the standards of the United States public health service. In the adoption of the standards, the agency shall consider the total occupational radiation exposure of individuals, including that from sources not regulated by the agency.
7. Adopt rules for personnel monitoring under the close supervision of technically competent people in order to determine compliance with safety rules adopted under this chapter.
8. Adopt a uniform system of labels, signs and symbols and the posting of the labels, signs and symbols to be affixed to radioactive products, especially those transferred from person to person.
9. By rule require adequate training and experience of persons utilizing sources of radiation with respect to the hazards of excessive exposure to radiation in order to protect health and safety.
10. Adopt standards for the storage of radioactive material and for security against unauthorized removal.
11. Adopt standards for the disposal of radioactive materials into the air, water and sewers and burial in the soil in accordance with 10 Code of Federal Regulations part 20.
12. Adopt rules applicable to the shipment of radioactive materials in conformity with and compatible with those established by the United States nuclear regulatory commission, the

department of transportation, the United States treasury department and the United States postal service.
13. In individual cases, impose additional requirements to protect health and safety or grant necessary exemptions which will not jeopardize health or safety, or both.
14. Make recommendations to the governor and furnish such technical advice as required on matters relating to the utilization and regulation of sources of radiation.
15. Conduct or cause to be conducted off-site radiological environmental monitoring of the air, water and soil surrounding any fixed nuclear facility, any uranium milling and tailing site and any uranium leaching operation, and maintain and report the data or results obtained by the monitoring as deemed appropriate by the agency.
16. Develop and utilize information resources concerning radiation and radioactive sources.
17. Prescribe by rule a schedule of fees to be charged to categories of licensees and registrants of radiation sources, including academic, medical, industrial, waste, distribution and imaging categories. The fees shall cover a significant portion of the reasonable costs associated with processing the application for license or registration, renewal or amendment of the license or registration and the costs of inspecting the licensee or registrant activities and facilities, including the cost to the agency of employing clerical help, consultants and persons possessing technical expertise and using analytical instrumentation and information processing systems.
18. Adopt rules establishing radiological standards, personnel standards and quality assurance programs to assure the accuracy and safety of screening and diagnostic mammography.
C. All fees collected under subsection B, paragraph 18 shall be deposited, pursuant to sections 35-146 and 35-147, in the state general fund.

30-656. Authority for governor to enter into agreements with federal government; effect on federal licenses
A. The governor, on behalf of this state, may enter into agreements with the federal government providing for discontinuance of certain of the federal government's responsibilities with respect to sources of radiation and the assumption of the responsibilities by this state.
B. Any person who, on the effective date of an agreement entered into under subsection A, possesses a license issued by the federal government shall be deemed to possess a like license issued under this chapter which shall expire either ninety days after receipt from the agency of a notice of expiration of the license or on the date of expiration specified in the federal license, whichever is earlier.

30-657. Records
A. Each person who possesses or uses a source of radiation shall maintain records relating to its receipt, storage, transfer or disposal and such other records as the agency provides by rules and regulations.
B. The agency shall require each person who possesses or uses a source of radiation to maintain appropriate records showing the radiation exposure of all individuals for whom personnel monitoring is required by rules and regulations promulgated by the agency. Copies of records required by this section shall be submitted to the agency on request by the agency.
C. Any person who possesses or uses a source of radiation shall furnish to each employee for whom personnel monitoring is required a copy of the employee's personal exposure record at such times as prescribed by rules and regulations promulgated by the agency.

D. Any person who possesses or uses a source of radiation shall, when requested, submit to the agency copies of records or reports submitted to the United States nuclear regulatory commission regardless of whether the person is subject to regulation by the agency. The agency shall, by rule and regulation, specify the records or reports required to be submitted to the agency under this subsection.

30-671. Exceptions; radiation standards

A. Radiation protection standards adopted in rules and regulations promulgated by the agency under this chapter shall not be construed to limit the kind or amount of radiation that may be intentionally applied to a person or animal for diagnostic or therapeutic purposes by or under the direction of a licensed practitioner of the healing arts.

B. Radiation sources shall be registered, licensed or exempt at the discretion of the agency and shall be available for inspection as specified in this chapter or rules and regulations adopted under this chapter.

30-672. Licensing and registration of sources of radiation; exemptions

A. The agency by rule shall provide for general or specific licensing of by-product, source, special nuclear materials or devices or equipment utilizing such materials. The rules shall provide for amendment, suspension or revocation of the licenses. The agency shall require from the applicant satisfactory evidence that the applicant is using methods and techniques which are demonstrated to be safe and that the applicant is familiar with the rules adopted by the agency under section 30-654, subsection B, paragraph 5 relative to uniform radiation standards, total occupational radiation exposure norms, labels, signs and symbols, storage, waste disposal and shipment of radioactive materials. The agency may require that before the agency issues a license the employees or other personnel of an applicant who may deal with sources of radiation receive a course of instruction approved by the agency concerning agency rules. The agency shall require that the applicant's proposed equipment and facilities be adequate to protect health and safety and that his proposed administrative controls over the use of the sources of radiation requested be adequate to protect health and safety.

B. The agency may require registration or licensing of other sources of radiation if it has been determined necessary to protect public health or safety.

C. The agency may exempt certain sources of radiation or kinds of uses or users from the licensing or registration requirements set forth in this section when it finds that the exemption of such sources of radiation or kinds of uses or users will not constitute a significant risk to the health and safety of the public.

D. The agency shall not require persons licensed in this state to practice as a dentist, chiropodist or veterinarian or licensed in this state to practice medicine, surgery, osteopathy, chiropractic or naturopathy to obtain any other license for the use of an X-ray machine, but these persons are governed by their own licensing acts.

E. Persons licensed by the federal communications commission with respect to the activities for which they are licensed by that commission are exempted from this chapter.

F. Rules adopted pursuant to this chapter may provide for recognition of other state or federal licenses as the agency deems desirable, subject to such registration requirements as the agency prescribes.

G. Any licenses issued by the agency shall state the nature, use and extent of use of the source of radiation. If at any time subsequent to the issuance of a license, the licensee desires

any change in the nature, use or extent, the licensee shall seek an amendment or a new license under this section.
H. The agency shall prescribe by rule requirements for financial security as a condition for licensure under this article. The agency shall deposit all amounts posted, paid or forfeited as financial security into the radiation regulatory and perpetual care fund under section 30-694.
I. Persons applying for licensure shall provide notice to the city or town where the applicant proposes to operate as part of the application process.
J. Any facility which provides diagnostic or screening mammography examinations by or under the direction of a person exempted from further licensure under subsection D of this section shall obtain certification by the agency. The agency shall prescribe by rule the requirements of certification in order to assure the accuracy and safety of diagnostic and screening mammography.

30-673. Unlawful acts
It is unlawful for any person to receive, use, possess, transfer, install or service any source of radiation unless registered, licensed or exempted by the agency in accordance with this chapter and rules and regulations adopted under this chapter.

30-681. Inspection
The agency or its duly authorized representatives may enter at all reasonable times upon any private or public property for the purpose of determining whether or not there is compliance with or violation of this chapter and rules and regulations issued under this chapter, except that entry into areas under the jurisdiction of the federal government shall be effected only with the concurrence of the federal government or its duly designated representative.

30-687. Routine enforcement action; civil penalty
A. A person who violates this chapter or any rule or regulation of the agency or any license requirement is subject to a civil penalty imposed by the agency. The agency shall issue a notice of violation to the violator and may hold a hearing prior to assessment of a civil penalty. The agency may in lieu of imposing a civil penalty prescribe a time for elimination of the violation and assessment of a civil penalty if the violation is not eliminated within the time prescribed by the order. The attorney general shall bring actions to collect a civil penalty assessed under this subsection.
B. The agency shall, by rule and regulation, establish a schedule of civil penalties based on factors such as the nature of the violation, the number of previous violations and whether the violation was of a serious nature.
C. The agency may impose a civil penalty of not more than five thousand dollars for each violation for each day up to a maximum of twenty-five thousand dollars for any thirty day period.
D. A final order of the agency under this section is subject to appeal to the radiation regulatory hearing board.

30-688. Escalated enforcement action; orders; hearings; appeals
A. To enforce this chapter, the agency shall, by rule and regulation, prescribe procedures for implementing an escalated enforcement action. An escalated enforcement action may include actions such as an informal hearing, impounding of radiation sources, assessment of civil

penalties, an order modifying, suspending or revoking a license issued under this chapter or recommending prosecution of a criminal action.

B. The director may, as part of an escalated enforcement action, issue an order providing for an immediate suspension of a license issued under this section without notice or hearing if the director determines that a potential threat to the public health and safety exists.

C. The board shall conduct a hearing within ten days after the date of the director's order unless the person against whom the order is directed waives the right to a hearing within ten days. If the ten day hearing requirement is waived, the board shall set the date for a hearing on the director's order within thirty days after the date of the order or within a time mutually agreeable to the interested parties. The purpose of the hearing is to review the decision of the director to issue the order. The board shall make findings of fact and may continue, suspend or modify the director's order.

D. The board shall not waive the ten day hearing requirement for any reason other than at the request of the person against whom the order was directed.

30-689. Violation; classification

A. Any person who violates any provision of this chapter or any rule, regulation or order placed in effect pursuant thereto by the commission is guilty of a class 2 misdemeanor.

B. The provisions of subsection A shall not apply to any emergency regulation or order unless or until the person so violating such regulation or order has had actual knowledge of the regulation or order.

E-2

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (R-16-0202)

Title 18, Chapter 4, Article 1, Primary Drinking Water Regulations; Article 2, State Drinking Water Regulations

Amend: R18-4-102; R18-4-103; R18-4-105; R18-4-121; R18-4-210

New Section: R18-4-126

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-2**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Chris Kleminich, Staff Attorney

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (R-16-0202)**
Title 18, Chapter 4, Article 1, Primary Drinking Water Regulations; Article 2, State Drinking Water Regulations

Amend: R18-4-102; R18-4-103; R18-4-105; R18-4-121; R18-4-210

New Section: R18-4-126

General Comments

Purpose of the Agency and Summary of What the Rulemaking Does

The purpose of the Arizona Department of Environmental Quality (Department) is to "consolidate and focus responsibility for environmental management and administration of water quality, air quality, solid waste and hazardous waste regulation with the goal of increasing effectiveness, efficiency and public acceptance of environmental regulation." Laws 2014, Ch. 247, § 7.

This rulemaking adds one new rule and amends five existing rules in A.A.C. Title 18, Chapter 4, Articles 1 and 2. The Department is updating its safe drinking water rules in order to conform to changes made to federal rules over the past seven years.

Article Contents, Including the Subject Matter of Each Rule Affected

Article 1 contains 22 rules, four of which are amended by this rulemaking, that relate to primary drinking water regulations. The effected rules address the incorporation by reference of 40 CFR 141 and 142; general provisions related to 40 CFR 141, Subpart A; Monitoring and Analytical Requirements – 40 CFR 141, Subpart C; and the Ground Water Rule – 40 CFR 141,

Subpart S. Section 126 is being added, and it relates to the Revised Total Coliform Rule – 40 CFR Part 141, Subpart Y.

Article 2 contains 20 rules, one of which is amended by this rulemaking, that relate to state drinking water regulations. Section 210 addresses total coliform and special events.

Year that Each Rule was Last Amended or Newly Made

The rules were last amended on August 30, 2008.

Proposed Action

The July 1, 2014 versions of 40 CFR 141 and 142 are being incorporated by reference.[1] In addition to updating these incorporations by reference, the Department is:

- Amending two definitions in R18-4-103(B), for ANSI/NSF Standard 60 and ANSI/NSF Standard 61, by updating the incorporation by reference from the 2000 versions to the 2014 versions.
- Updating the definition of "lead-free" in R18-4-103(B).
- Adding a definition of "protected water source" in R18-4-103(B).
- Correcting a minor inconsistency in R18-4-103(D)(12). The rule had replaced text in 40 CFR 142.44(b) and 40 CFR 142.54(b) respectively, but had used the same term of "exemption" for both sections, even though 40 CFR 142.44 governs variances and 40 CFR 142.54 governs exemptions. The Department corrects this error in the amended R18-4-103(D)(11).
- Incorporating Appendix A of 40 CFR 141, Subpart C (40 CFR 141.21 through 141.29) by reference in R18-4-105. Appendix A was added to Subpart C in 2007. It provides alternative testing methods approved for analyses under the Safe Drinking Water Act.
- Amending R18-4-121 to modify 40 CFR 141.402(a)(4), related to consecutive and wholesale systems.
- Adding R18-4-126, related to the Revised Total Coliform Rule.
- Making clarifying changes to R18-4-210, related to corrective action for positive coliform results.

Summary of Reasons for the Proposed Action

The Department is updating its safe drinking water rules in order to conform to changes made to federal rules over the past seven years. The Department, under A.R.S. § 49-353(A)(2)(a), is required to develop rules that meet the "requirements established by the United States environmental protection agency for state primary enforcement responsibility of the safe drinking water act, including the requirements of 40 Code of Federal Regulations parts 141 and 142."

[1] For a summary of the major changes made to these federal regulations between 2007 and 2014, please refer to pages 2-4 of the Notice of Final Rulemaking.

Exemption or Request and Approval for Exception from the Moratorium

The Department received an exception from Executive Order 2015-01 on September 15, 2015.

Substantive or Procedural Concerns

None.

1. Are the rules legal, consistent with legislative intent, and within the agency's statutory authority?

Yes. As general authority for the rules, the Department cites to the entirety of A.R.S. Title 49, Chapter 2, Article 9, as well as the Federal Safe Drinking Water Act, 42 U.S.C. 300f through 300j-26.

As specific authority for the rules, the Department cites to A.R.S. § 49-351, related to the Department's designation as "the responsible agency for this state to take all actions necessary or appropriate to ensure that all potable water distributed or sold to the public through public water systems is free from unwholesome, poisonous, deleterious or other foreign substances and filth or disease causing substances or organisms." In addition, A.R.S. § 49-353(A)(2)(a) provides the Department with specific authority to establish rules in compliance with the requirements of 40 CFR 141 and 142. Also, A.R.S. § 49-353.01 provides the Department with additional rulemaking authority to adopt minimum water quality standards.

2. Are the rules written in a manner that is clear, concise, and understandable to the general public?

Yes. The rules are clear, concise, and understandable.

3. Does the agency adequately address the comments on the proposed rules and any supplemental proposals?

Yes. The Department received one comment on the rulemaking, which inquired as to why a definition for "protected water source" is being added. The Department's response is that "protected source" is not defined at the federal level, but the Department wants to provide clarity to the regulated community, and not leave this up to interpretation after implementation of the rules.

4. Are the final rules a substantial change, considered as a whole, from the proposed rules and any supplemental proposals?

No. Non-substantive technical and clarifying changes have been made by the Department.

5. Does the preamble disclose a reference to any study relevant to the rules that the agency reviewed and either did or did not rely on in the agency's evaluation of or justification for the rules?

The Department indicates that it reviewed and relied upon the EPA's rules and associated guidance documents relevant to this rulemaking, including the Revised Total Coliform Rule. See 78 FR 10270 (Feb. 13, 2013) and 79 FR 10665 (Feb. 26, 2014).

6. Are the rules more stringent than corresponding federal law and, if so, is there statutory authority that allows the agency to exceed the requirements of federal law?

No. The Department indicates that the rules are no more stringent than corresponding federal law.

7. Do the rules require a permit or license and if so, does the agency use a general permit or is any exception applicable under A.R.S. § 41-1037?

No. The Department indicates that the rules do not require any permits.

8. Do the rules establish a new fee or contain a fee increase?

No. The rules do not establish a new fee or contain a fee increase.

9. Conclusion

The Department requests the usual 60-day delayed effective date for the rule. This analyst recommends approval of the rules.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-2**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (R-16-0202)**
Title 18, Chapter 4, Article 1, Primary Drinking Water Regulations; Article 2, State Drinking Water Regulations

Amend: R18-4-102; R18-4-103; R18-4-105; R18-4-121; R18-4-210

New Section: R18-4-126

I reviewed the economic, small business, and consumer impact statement (EIS) and make the following comments. These comments are made to assist the Council in its review and may be used as the Council determines.

GRRC Economist comments:

In this rulemaking, the Department is proposing amendments to its public water system (PWS) monitoring practices by incorporating federal rules by reference. This will allow the Department to remain in compliance with the Revised Total Coliform Rule (RTCR) published by the Environmental Protection Agency (EPA) on February 13, 2013 (78 FR 10269). The rulemaking will reduce PWS monitoring requirements for specified contaminants and eliminate public notification requirements required under the current rules. The rulemaking will also update the Lead and Copper Rules (LCR) to clarify requirements related to lead monitoring practices.

The proposed RTCR rulemaking will affect all of Arizona's 1,531 reported public water systems, which include 752 community water systems (CWS), 574 nontransient, noncommunity water systems (NTNCW) and 205 transient noncommunity water systems (TNCW). The LCR will affect only the 752 CWSs and 574 NTNCWSs, which are required to monitor drinking water for concentrations of lead and copper. Operators of PWSs might also be affected by the proposed RTCR rulemaking. There were 5,441 certified operators for drinking water treatment or

distribution systems in 2015. Of the 1,531 PWSs in Arizona, 446 are publicly owned while the remaining 1,085 are privately-owned.

The Department has certified that the Joint Legislative Budget Committee has not been notified because the number of new full-time employees necessary to implement and enforce the rule is zero. Notice of new FTEs is required by A.R.S. § 41-1055(B)(3)(a).

1. **Costs and Benefits for:**

a. The implementing agency:

The Department will not add any new FTEs, but will reallocate existing staff in order to develop, review and modify regulations and procedures.

The Arizona Department of Health Services (ADHS) has statutory responsibility for licensing the environmental laboratories that public water systems must use to conduct analysis of their drinking water monitoring samples. Although the Department is the agency with primary responsibility for Arizona's safe drinking water primacy, the Department and ADHS work together to maintain Arizona's primacy, since both agencies must adopt regulations that are as stringent as EPA's drinking water regulations. ADHS will likely incur administrative costs associated with promulgating rulemaking necessary to update its rules.

b. Political subdivisions:

Political subdivisions and government entities that own PWSs will be affected by this rulemaking. Impacts to political subdivisions and government entities that own PWSs will be similar to impacts to all other PWSs. Maricopa and Pima Counties are co-regulators with the Department and will likely incur administrative costs similar to the Department. Maricopa and Pima Counties could face costs related to inspections located within their respective jurisdictions, but should be able to recover their costs through fees. Because the Lead and Copper rule is mainly a review of sampling data and follow-up, neither county should incur costs related to the Lead and Copper Rule. Maricopa County owns and operates six PWSs and Pima County owns and operates eleven PWSs.

c. Businesses:

Businesses that own PWSs will be affected by this rulemaking. Impacts to businesses that own PWSs will be similar to impacts to all other PWSs. Businesses that own PWSs will benefit from the proposed rulemaking changes that eliminate the non-acute MCL violation for total coliforms, lower the required number of repeat samples, and eliminate the subsequent public notification requirements for RTCR-related activities.

All PWSs will incur initial one-time training, editing and management costs associated with the RTCR requirements of the proposed rule change. Anticipated changes and cost increases or decreases for all PWSs are listed by total Arizona PWSs and per Arizona PWSs in Table 1.

Table 1.

Anticipated Changes	Annualized Cost Range (All Arizona PWSs) Increase/(Decrease)			Annualized Cost Range (Per Arizona PWSs) Increase/(Decrease)		
Rule implementation	$27,360.0	-	$39,510.0	$17.9	-	$25.8
Revising sample siting plans	$5,828.0	-	$8,297.0	$3.8	-	$5.4
Public notification	($33,089.0)	-	($34,472.0)	($21.6)	-	($22.5)
Condusting assessments	$6,815.0	-	$6,914.0	$4.5	-	$4.5
Corrective action	$104,997.0	-	$122,875.0	$68.6	-	$80.3
Monitoring	$9,384.0	-	$11,260.0	$6.1	-	$7.4
Total	$121,295.0		$154,384.0	$79.2		$100.8

Only CWSs and NTNCWSs will incur monitoring costs associated with the LCR requirements of the proposed rule change. LCR rule change costs are anticipated to be minor. The LCR rule change clarifies certain requirements related to lead. Monitoring action levels will remain unchanged.

The proposed LCR rule change broadens the public outreach responsibilities that the PWS has if action levels are exceeded, and includes notifying schools, day care centers and health care providers in the area of the health effects of lead and its impact on children. EPA estimated that additional labor and material costs would result in total annual costs of $859,200 for PWSs impacted nationwide. There are a total of 155,000 active PWSs nationwide.

There were 1,326 CWSs and NTNCWSs in Arizona in 2015. Of these, 857 systems were on the three-year reduced monitoring schedule. No PWSs in Arizona have qualified or have sought to qualify for the nine-year reduced monitoring. Since 2010, only 34 PWSs have triggered the 90th percentile level, and only one in 2015.

d. Small businesses:

The Department defines a small business as a small water system, which is defined as a water system that serves 3,300 persons or fewer. In Arizona about 1,391 PWS serve 3,300 or less. There will be no additional administrative costs required for small businesses to comply with the final rulemaking that were not specified in Section C of this report.

Under the proposed LCR rule change, a clarification is made that a minimum of five samples must be taken when conducting compliance monitoring. A system serving 101 to 500 persons that has less than five taps will have to collect multiple samples on different days from the same tap in order to achieve the total number of required samples.

A system serving 101 to 500 persons, on initial monitoring, would be taking 10 samples a year, which would cost approximately $350 annually. A very small system serving 100 or less persons will only need to take five initial samples, at a cost of $175 annually.

Under the proposed RTCR amendments, small PWSs will be positively impacted. One change that the Department will institute is quarterly routine monitoring for total coliform for all non-CWS serving 1,000 persons or less and using only ground water. This would impact 723 Arizona PWSs and could result in an annual cost savings of $360 for each PWS (four samples at $45 versus 12 samples at $45). Another change is the reduction in required repeat sampling in response to a TC positive. For PWSs serving less than 1,000 persons, the difference in conducting repeat samples (ranging from four to 20 samples to just three repeat samples) results in cost savings of $45 to $765.

e. Consumers directly affected by the rulemaking:

Benefits may include avoidance of a full range of health effects from the consumption of contaminated drinking water. It is anticipated that the requirements of the RTCR will help reduce pathways of entry for fecal contamination and/or waterborne pathogens into the distribution system.

The RTCR amendments could indirectly impact customers of a CWS, if a CWS passed the entire cost increase resulting from the rule on to its customers. EPA estimated that the average annual water bill could increase by six cents or less on average per year. EPA estimated that the nine percent of households belonging to CWSs nationwide that perform corrective actions over the 25-year period of analysis experience an increase in annual net household costs of less than $0.70 on average for CWSs serving greater than 4,100 people to approximately $4.50 on average for CWSs serving 4,100 or fewer people on an annual basis.

The Department believes the LCR rule change would have indirect benefits by improving customer awareness through direct notification. The LCR rule change costs were not calculated for consumers, as these costs are not typically passed through directly to households.

2. <u>Do the probable benefits outweigh the probable costs?</u>

The Department indicates that the probable benefits of the rules outweigh the probable costs. The Department states that its rules and programs must comply with EPA requirements, as it is a federally-delegated program. Some parts of the proposed rules reduce existing sampling requirements for smaller PWSs, and allow for reduced monitoring.

3. <u>Analysis of methods to reduce the small business impact:</u>

No analysis was submitted to reduce the economic impact to small businesses.

4. <u>The probable effect on state revenues:</u>

The Department states that the proposed rulemaking will have no effect on state revenues.

5. Analysis of any less intrusive or less costly alternative methods:

No alternative methods were considered.

6. Whether an analysis was submitted to the agency regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states:

No analysis was submitted that compares the rule's impact of the competiveness of businesses in this state to the impact on businesses in other states.

7. A description of any data on which a rule is based with an explanation of how the data was obtained and why the data is acceptable data, and the methods used by the agency to evaluate the costs and benefits in the EIS.

The Department relied on its SDWIS/State for any numbers reported. The Department generally does not track information related to a PWS's costs, such as the cost of public notice, internal training costs, water treatment costs, or infrastructure repairs or improvements. The Department relied on EPA's economic analysis for each rulemaking, which examined data for 155,000 active PWSs nationwide.

8. Conclusion:

The submitted economic, small business and consumer impact statement is generally accurate, and contains the information required for compliance with A.R.S. §§ 41-1035, 41-1052(D)(1-3), and 41-1055. This analyst recommends that the proposed rule amendments be approved.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Douglas A. Ducey
Governor

Misael Cabrera
Director

December 18, 2015

Ms. Nicole A. Ong, Chair
Governor's Regulatory Review Council
100 North 15th Avenue, Suite 402
Phoenix, Arizona 85007

Re: 18 A.A.C. 4, Department of Environmental Quality – Safe Drinking Water

Dear Ms. Ong:

Enclosed please find a final rule package from the Arizona Department of Environmental Quality (ADEQ) for placement on the Council agenda. Pursuant to A.A.C. R1-6-104, I provide the following information:

- The close of record date was November 23, 2015.
- The rulemaking does not relate to a five-year-review report.
- The rules do not include new or increased fees.
- ADEQ is requesting an effective date 60 days from filing.
- The Governor's office approved an exception from E.O. 2015-01 on September 15, 2015.

I certify that the preamble contains a reference to any study relevant to the rules that ADEQ reviewed and either did or did not rely on in our evaluation and justification for the rules. No new full-time employees are necessary to implement and enforce the rules. No competitive analysis was submitted.

Please do not hesitate to contact me, or Wendy LeStarge, at 602-771-4836 (also wl1@azdeq.gov) if there are any questions we can answer for you.

Sincerely,

Misael Cabrera
Director

Enclosures:
1. Notice of Final Rulemaking
2. Economic, small business and consumer impact statement
3. Copies of written and oral comments received
4. Copy of e-mail approval for exception from E.O. 2015-01

NOTICE OF FINAL RULEMAKING

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY -

SAFE DRINKING WATER

PREAMBLE

1. Article, Part of Sections Affected (as applicable)	**Rulemaking Action**
R18-4-102	Amend
R18-4-103	Amend
R18-4-105	Amend
R18-4-121	Amend
R18-4-126	New Section
R18-4-210	Amend

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statute: A.R.S. Title 49, Chapter 2, Article 9, and the Safe Drinking Water Act, 42 U.S.C. 300f through 300j-26

Implementing statutes: A.R.S. §§ 49-351, 49-352, 49-353, 49-353.01

3. The effective date of the rule:

60 days from filing with the Secretary of State

4. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the proposed rule:

Notice of Rulemaking Docket Opening: 21 A.A.R. 2296 (October 9, 2015)

Notice of Proposed Rulemaking: 21 A.A.R. 2286 (October 9, 2015)

5. The agency's contact person who can answer question about the rulemaking:

Name: Wendy LeStarge

Address: Arizona Department of Environmental Quality
Water Quality Division
1110 W. Washington Street

Phoenix, Arizona 85007
Telephone: (602) 771-4836 (Toll-free number in Arizona: (800) 234-5677)
Fax: (602) 771-4834
E-mail: lestarge.wendy@azdeq.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

The Arizona Department of Environmental Quality (ADEQ) is proposing to update its safe drinking water rules in order to conform to changes made to federal rules over the past seven years. The Governor's office approved an exception from E.O. 2015-01 on September 15, 2015.

ADEQ is required to develop rules that meet the "requirements established by the United States environmental protection agency for state primary enforcement responsibility of the safe drinking water act, including the requirements of 40 Code of Federal Regulations parts 141 and 142." A.R.S. § 49-353(A)(2)(a). ADEQ last amended these rules in 2008 by incorporating by reference the 2007 version of the U.S. Environmental Protection Agency's (EPA) federal rules (National Primary Drinking Water Regulations) in 40 CFR 141. Since the 2008 rulemaking, EPA has made two major changes, which are described as follows:

Revised Total Coliform Rule (RTCR)

All public water systems (PWSs) are required to monitor for total coliforms, which serve as an indicator of other disease causing agents that can cause illness or death. In 2013, EPA revised the Total Coliform Rule by removing as a violation having minimal levels of total coliform present in a drinking water sample. EPA published minor corrections to the RTCR in February 2014 to correct typographical errors in sections relating to recordkeeping and State primacy requirements.

Under the previous federal rule (and ADEQ's current rule), a PWS can violate the Maximum Contaminant Level (MCL) for total coliforms in two ways:

- A non-acute violation requiring a public notice within 30 days:
  - A system collecting fewer than 40 samples per month has two or more total coliform positive samples in that month; or
  - A system collecting 40 or more samples in a month has greater than five percent of samples collected that are total coliform positive.
- An acute violation for any presence of fecal coliform or E. coli (positive) in a repeat sample, or

any presence of total coliform in a repeat sample following fecal coliform or E. coli (positive) routine. The PWS has to issue a public notice within 24 hours.

Under the 2013 RTCR, EPA eliminated the non-acute MCL for total coliforms and the public notification requirements for a non-acute violation, because the presence of total coliforms in and of themselves does not indicate a health threat. This revision relieves a PWS of the expense of required repeat sampling and providing public notice to customers. The "acute" total coliform MCL violation has been maintained as the MCL for E. coli under the RTCR, which is a more specific indicator of potential harmful pathogens than total coliforms. Also, the RTCR requires public notification when an E. coli MCL violation occurs, indicating a potential health threat, or when a PWS fails to conduct the required assessment and corrective action.

The RTCR allow states some discretion on which provisions they adopt and implement. ADEQ is incorporating by reference most of the RTCR amendments without modification, except for the following:

- 40 CFR 141.402(a)(4) is modified to allow the consecutive ground water system and wholesale ground water system the opportunity to trace back the source of total coliform-positive sample. The original federal rule language requires that the wholesale ground water system sample all of its groundwater sources within 24 hours of receiving notice of a total coliform-positive result from a consecutive ground water system. The original federal rule language could unduly burden some PWSs in Arizona. ADEQ is aware of one PWS which has approximately 200 active wells and provides the sole source of water to about 42 consecutive systems. ADEQ's modified language requires that the consecutive ground water system first collect its repeat sample at the connection where it receives its ground water. If the interconnect sample is fecal indicator positive, then ADEQ would determine which wells, if any, the wholesale system must sample to determine the microbial quality of the source.
- 40 CFR 141.851(d) is not incorporated by reference because it concerns when EPA implements the rules.
- 40 CFR 141.852 and 141.853(c)(2) are not incorporated by reference because these sections concern analytical methods and laboratory certification. In Arizona, the Arizona Department of Health Services (ADHS) has statutory authority for the regulation of environmental laboratories, pursuant to A.R.S. § 36-495.01.
- 40 CFR 141.854(h)(2)(i)-(ii) are not incorporated by reference because these two provision are already required under A.A.C. R18-4-202 (Certified Operators) and R18-4-215 (Backflow

Prevention). A PWS will have the remaining subsections (iii – v) to choose from for additional enhancements.

In R18-4-103(B), ADEQ is adding a definition for "protected source." ADEQ is also making corresponding amendments to R18-4-210, Total Coliform; Special Events. ADEQ will implement any changes in monitoring frequency allowed under RTCR after conducting a sanitary survey of a PWS.

Lead and Copper Rule (LCR)

EPA does not regulate lead (or copper) through an MCL. Rather, PWSs must monitor drinking water at customer taps because lead enters drinking water primarily through corrosion of plumbing materials. If lead concentrations exceed an action level of 0.015 mg/l in more than 10% of customer taps sampled, the system must undertake a number of additional actions to control corrosion. If the action level for lead is exceeded, the system must also inform the public about steps they should take to protect their health and the system may also have to replace lead service lines under their control.

Shortly before ADEQ's rules were final in 2008, EPA made changes to the LCR, as follows:

- Public education requirements are clarified and strengthened in the event lead and/or copper levels are exceeded;
- Clarified when a PWS must treat source water and replace service lines that contain lead if other options have been exhausted;
- When sampling at a customer's tap for lead and copper, a PWS must now notify those customers of the results;
- A PWS must notify the State before adding a new water source or making any long-term treatment change (ADEQ has required this for many years under its design review rules for PWSs).

Separate from the LCR amendments, ADEQ is amending the definition of "Lead-free" in R18-4-103(B) to have the same meaning as A.R.S. § 49-353(B).

Additional Changes

ADEQ is making some minor updates.

- Amending the two definitions in R18-4-103(B) for ANSI/NSF Standard 60 and ANSI/NSF Standard 61 by updating the 2000 incorporation by reference to the 2014 versions.

- An inconsistency in R18-4-103(D) is corrected. R18-4-103(D)(12) had replaced text in 40 CFR 142.44(b) and 40 CFR 142.54(b) respectively, but had used the same term of "exemption" for both sections. 40 CFR 142.44 governs variances; 40 CFR 142.54 governs exemptions. ADEQ corrects this error in amended R18-4-103(D)(11). The previous substitution language in R18-4-103(D)(4) is now unnecessary and is deleted.
- In R18-4-105, ADEQ is adding Appendix A to its incorporation by reference of 40 CFR 141, Subpart C (40 CFR 141.21 though 141.29). EPA added Appendix A to Subpart C in 2007 and provides alternative testing methods approved for analyses under the Safe Drinking Water Act.

7. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

ADEQ staff reviewed and relied upon EPA's rule and associated guidance documents relevant to this rulemaking, including the Revised Total Coliform Rule, 78 FR 10270 (Feb. 13, 2013) and 79 FR 10665 (Feb. 26, 2014). EPA rules and guidance documents referenced above can be downloaded from EPA's total coliform rule web page at http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/index.cfm

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. A summary of the economic, small business, and consumer impact:

Background on Safe Drinking Water Act Regulation

The Safe Drinking Water Act (SDWA) regulates public water systems. A Public Water System (PWS) provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year. Under the rules, PWSs are categorized as follows:

- Community water systems (CWSs) – serves 15 or more service connections used by year-round residents or that serves 25 or more year-round residents. This PWS supplies water to the same population year-round, such as for a residential community.
- Nontransient, Noncommunity water systems (NTNCWSs) – serves 15 or more service connections that are used by the same persons for at least six months per year, or serves the same

25 or more persons for at least six months per year. This PWS could be a school, factory, or office building that has its own water system.

- Transient Noncommunity water systems (TNCWSs) – serves 15 or more service connections, but does not serve 15 or more service connections that are used by the same persons for more than six months per year; or serves an average of at least 25 persons per day for at least 60 days per year, but does not serve the same 25 persons for more than six months per year. A TNCWS could be a business that must operate a water system ancillary to its business, such as a restaurant in a rural area that uses and serves water from a well, or a government- owned water system for a state campground.

Under the SDWA regulations, EPA sets maximum contaminant levels ("MCL") on contaminants. PWSs are required to monitor (sample and test) their water for the listed contaminants, and to submit regular reports to the state agency. If an MCL is exceeded, usually the PWS must retest. A PWS also may need to take corrective action. Another element of the regulatory format is CWSs must compile and publish regular reports (Consumer Confidence Reports) for its customers/users regarding the safety of the drinking water. EPA also sets regulatory criteria based on:

- The population served by the PWS;
- The category of the PWS;
- The PWS's source water type of drinking water (ground water, surface water, or ground water under the direct influence of surface water);
- Type of treatment a PWS uses on its source water; and
- Whether the PWS uses disinfection.

The two major changes in this rulemaking are the updates to the federal rules of the Revised Total Coliform Rule and the Lead and Copper Rule. EPA compiled an economic analysis for each rulemaking. EPA based much of its analysis from its national database, Safe Drinking Water Information System Federal Version (SDWIS/FED), which examined data for 155,000 active PWSs nationwide. ADEQ relied on its state version of SDWIS/State for any Arizona numbers reported. In Arizona, there are 1,531 PWSs, serving a total population of about 6,552,434.

A. Brief summary of the information included in the economic, small business and consumer impact statement:

The Revised Total Coliform Rule (RTCR) should benefit all of Arizona's reported 1,531 PWSs as it reduces or eliminates costs associated with eliminating the non-acute MCL violation for total

coliforms, reduces the required repeat sampling, and eliminates the subsequent public notification requirements. PWSs could face some costs for taking corrective action if required. Some PWSs will be affected by the clarifications to the Lead and Copper Rule, mainly for actually notifying customers of sample results from the customers' taps.

B. Name and address of agency employees who may be contacted to submit or request additional data on the information included in the economic, small business and consumer impact statement:

Name: Wendy LeStarge

Address: Arizona Department of Environmental Quality
Water Quality Division
1110 W. Washington Street
Phoenix, Arizona 85007

Telephone: (602) 771-4836 (Toll-free number in Arizona: (800) 234-5677)

Fax: (602) 771-4834

E-mail: lestarge.wendy@azdeq.gov

C. Identification of persons who will be directly affected by, bear the costs of or directly benefit from the rulemaking:

RTCR will affect all PWSs. Lead and Copper rule changes affect only CWSs and NTNCWSs. Arizona PWSs categories are broken down as follows:

- CWSs = 752,
- NTNCWSs = 574, and
- TNCWSs = 205.

Operators of PWS also can be affected by the proposed rules. Operators of drinking water treatment plants and distribution systems are responsible for all decisions about process control or system integrity that affects public health and the environment. Many operators conduct sampling for the PWS. Every PWS is required to ensure that it has a certified operator in direct responsible charge. A.A.C. R18-5-104(A)(1). There are 5,441 certified operators for drinking water treatment or distribution systems. Some operators work as employees of the PWS; others may work as their own business, usually on a contract basis for smaller PWSs. It is possible that some certified operators who work on a contract basis could be impacted by RTCR as described in Section G.

D. Cost-benefit analysis of probable costs and benefits to ADEQ and other agencies:

ADEQ is the main agency impacted by the proposed changes. ADEQ will not add any new FTEs, but will reallocate existing staff in order to:

- Develop and adopt state regulations, procedures, and forms;
- Modify SDWIS to track new required PWS reports;
- Review completed RTCR Level 1 and Level 2 assessment forms required to be filed by PWSs;
- Review lead and copper data, prepare conclusions and letters to systems, and coordinate with PWSs.

The Arizona Department of Health Services (ADHS) has statutory responsibility for licensing the environmental laboratories that public water systems must use to conduct analysis of their drinking water monitoring samples. Although ADEQ is the agency with primary responsibility for Arizona's safe drinking water primacy, ADEQ and ADHS work together to maintain Arizona's primacy, since both agencies must adopt regulations that are as stringent as EPA's drinking water regulations. ADHS will likely incur administrative costs associated with promulgating rulemaking necessary to update its rules.

E. Cost-benefit analysis of probable costs and benefits to political subdivisions:

Political subdivisions and government entities that own PWSs will be impacted by this rulemaking as with any other PWS. Out of 1,531 PWSs in Arizona, 446 are publicly-owned. PWSs can be publicly owned by federal, state, or local entities. Another type of public entity is a Domestic Water Improvement District (DWID), which is a special type of County Improvement District. A.R.S. Title 48, Chapter 6. Maricopa and Pima Counties are co-regulators with ADEQ; also Maricopa County owns and operates six PWSs; Pima County has eleven PWSs.

DWIDs and many cities and towns own and operate CWSs to provide drinking water to their residents. The federal government owns and operates CWSs for military bases and some federal parks. Federal, state, and local governments and school districts also own and operate NTNCWSs such as for an office building or a school. Federal, state, and local governments also own and operate TNCWSs such as for a campground or park.

Maricopa and Pima Counties could also incur some costs because of their role as regulators. ADEQ has delegated authority to enforce the SDWA to Maricopa and Pima counties, within their jurisdictions. ADEQ has been working with both counties to develop procedures and forms for

RTCR. Both counties will likely incur some costs similar to ADEQ, such as for reviewing completed Level 1 and Level 2 assessment forms required to be filed by PWSs under the RTCR. Neither county is delegated responsibility for data management and neither county will need to adopt regulations. Both counties assess fees for activities such as inspections. They could face costs related to inspections located within their respective jurisdictions, but should be able to recover their costs through fees. Because the Lead and Copper rule is mainly a review of sampling data and follow-up, neither county should incur costs related to the Lead and Copper Rule.

F. Cost-benefit analysis of probable costs and benefits to businesses:

This section discusses the costs and benefits of this rulemaking to all 1,531 Arizona PWSs, although 1,085 are privately-owned PWS. Privately-owned CWSs include utility companies, RV parks, and sometimes homeowners associations. Privately-owned NTNCWSs could be a business or non-profit organization providing drinking water ancillary to its office or business building. Privately-owned TNCWSs could include a restaurant. Costs, and the ability to manage costs are affected by the category of PWS. As CWSs generally are funded through rates, the owner of a CWS has the ability to increase rates. Water use for NTNCWSs and TNCWSs tends to be ancillary, such as for a school or a restaurant; the ability to cover any increased costs is more limited.

Under the current rules, all PWSs already collect water samples for total coliform and *E. coli* on a monthly basis and have them tested for the presence of total coliforms by a state certified laboratory. The PWS must also report sample results to ADEQ and maintain records. The number of samples a PWS collects depends on the size of the population served, ranging from one per month for a PWS serving less than 1,000, to 480 samples per month for a PWS serving more than 3,960,001. For any sample that is total coliform positive (TC positive), a PWS must analyze the sample for *E. coli* and collect repeat samples for each TC positive sample. The number of required repeat sampling depends on the results of additional TC positive samples and on the size of the PWS. For a PWS serving less than 1,000, repeat sampling ranges from four to 20 extra samples. For a PWS serving over 1,000, repeat sampling ranges from three to 12 extra samples. Two TC positive samples result in a non-acute MCL violation, and requires the PWS to issue a Tier 2 public notification within 30 days.

RTCR eliminates the non-acute MCL violation for total coliforms, lowers the required number of repeat samples, and eliminates the subsequent public notification requirements. Under RTCR, in response to a TC positive, the PWS conducts three repeat samples, regardless of its size. If any repeat sample is positive, a PWS may be required to conduct additional repeat sampling or conduct a Level

1 Assessment. A PWS may need to conduct a more rigorous evaluation under a Level 2 Assessment. The PWS must also fix any sanitary defects within a required timeframe. Corrective actions resulting from a Level 1 Assessment focus more on transient solutions or training than on permanent fixes to the PWS. Corrective actions taken as a result of Level 2 assessments are expected to find a higher proportion of structural/technical issues resulting in material fixes to the PWSs and distribution system.

Under the RTCR, all PWSs will incur some initial one-time costs, including:

- Reading and understanding the rule, and training employees on rule requirements. EPA estimated that PWSs require a total of four hours to read and understand the rule, and a total of eight hours to plan and assign appropriate personnel and resources to carry out rule activities, resulting in national annualized cost estimates for rule implementation and annual administration of $2.77 million to $4.00 million for 155,000 active PWSs.
- Revising existing sample siting plans to identify sampling locations and collection schedules. EPA estimated that PWSs require two to eight hours to revise their sample siting plan, depending on PWS size, resulting in national annualized cost estimates for revising sample siting plans of $0.59 million to $0.84 million for 155,000 active PWSs.

Under the RTCR, a PWS still may be required to develop and distribute a public notice, but these costs should be minor. A PWS must issue some level of public notice if it incurs an *E. coli* MCL violation, a treatment technique violation for failure to conduct assessments or corrective action, or for a monitoring or reporting violation. PWSs will need to update the existing language used in the public notice based on language specified in the RTCR. ADEQ has template language on its website for PWSs to use. Also, if a CWS must conduct an assessment or incurs an *E. coli* MCL violation, the CWS will need to include that information in its Consumer Confidence Report, using language specified in the RTCR.

EPA estimated a net increase in national annualized cost estimates for conducting assessments of $0.69 million to $0.70 million. Corrective action costs are the most significant contributors to the net increase in costs for PWSs under the RTCR. EPA estimated a net increase in national annualized cost estimates for conducting corrective actions of $10.63 million to $12.44 million for 155,000 active PWSs.

PWSs should derive some benefits from RTCR as a result of reducing the number of repeat samples

collected and eliminating the non-acute MCL public notification requirements. EPA estimated a net increase in national annualized cost estimates for monitoring of $0.95 million to $1.14 million due to stricter requirements to qualify for reduced monitoring. But this increase is mostly offset by reductions in additional routine and repeat monitoring. EPA estimated a net decrease in national annualized cost estimates incurred by PWSs for public notification of $3.35 million to $3.49 million.

ADEQ reviewed its records of 241 total coliform violations for 2009 through 2013. During this period under the RTCR, 225 out of 241 violations would not have been violations, and the public water systems would not have incurred costs of additional monitoring and issuing public notice. In Arizona, TC sampling costs are approximately $45 per sample; under RTCR, a PWS will save $45 for every repeat sample the PWS is no longer required to conduct. For PWSs serving less than 1,000, the difference in conducting repeat samples (ranging from four to 20 samples to just three repeat samples) results in cost savings of $45 to $765.

EPA predicted some indirect benefits resulting from RTCR, such as:

- Increases the likelihood that PWS operators, in particular those of systems required to conduct assessments and corrective action, will develop further understanding of system operations and improve and practice preventive maintenance.
- PWSs may choose corrective actions that also reduce other drinking water contaminants as a result of the fact that the corrective action eliminates a pathway of potential contamination into the distribution system.
- Implementing corrective actions should result in overall better water quality.

LEAD & COPPER RULE

Only CWSs and NTNCWSs must monitor drinking water for concentrations of lead and copper, usually at customer taps because lead and copper enters drinking water primarily through corrosion of plumbing materials. EPA does not regulate lead or copper through an MCL, but through an action level: 0.015 milligrams per liter (mg/L) for lead and 1.3 mg/L for copper. If lead or copper concentrations exceed an action level in more than 10% of customer taps sampled, the PWS must undertake a number of additional actions including:

- Control corrosion,
- Perform public education,
- Treat the source water, and

- Replace lead service lines if optimal corrosion control has been installed but lead levels continue to exceed action levels.

  PWSs that can demonstrate low levels of lead or copper qualify for reduced monitoring of once every three years, and possibly once every nine years.

The LCR changes are not major; the action levels are not changed. Rather the LCR clarifies certain requirements related to lead:

Change	Impact and Costs
Clarifies that a minimum of five samples must be taken when conducting compliance monitoring	Impacts smaller systems (serving 101 to 500) that have less than five taps. These systems will have to collect multiple samples on different days from the same tap in order to achieve the total number of required samples. EPA did not have data on direct costs. In Arizona, lead and copper sampling costs about $35 per sample. A small system on initial monitoring would be taking 10 samples a year, so approximately $350 annually. But very small systems serving 100 or less will only need to take five initial samples, at a cost of $175.
Requires the PWS to notify the State before adding a new source of water or making any long-term treatment change.	ADEQ does not anticipate any impact or costs associated with this change. ADEQ has required that a PWS adding a new source of water or making any long-term treatment change must submit to a design review and receive approval from ADEQ before any construction begins. ADEQ's rules, 18 A.A.C. 5, Article 5 have been in place since 1995.
Clarifies that non-compliance starts at the end of the monitoring period for a PWS exceeding the lead or copper action level during a monitoring period.	Under the previous language, it was not clear whether noncompliance began at the end of the calendar year or at the end of the monitoring period. As a result, activities triggered by an action level exceedance could begin three months earlier, but the duration of these activities would not likely be longer. This change does not alter the number of samples taken,

	but rather the time. Any direct cost should be minor.
If a PWS undertakes lead service line replacement, the PWS can allow an individual lead service line to remain if all samples from that line are less than the action level. The LCR requires that if the lead action level is exceeded, the PWS must reconsider any lines previously decided to not need replacement	EPA estimated the total direct costs for PWSs nationwide would be $101,000 annually. The estimate is based on the number of PWSs previously involved in a lead service line replacement program, the number of PWSs likely to discontinue such a program because of low tested lead levels, and then the fraction of those PWSs likely to subsequently exceed the action level and restart their lead service line replacement program. ADEQ has never required line replacement or a treatment change and is not aware of a delegated county requiring it either.
When sampling at a customer's tap for lead and copper, a CWS must notify those customers of the results. Compliance for NTNCWSs will be determined by their circumstances and may consist of posting a notice on community bulletin boards or Web sites.	EPA estimated that PWSs nationwide subject to LCR would incur total annual costs of $1,248,000 to notify customers.
Broadens the public outreach responsibilities that the PWS has if action levels are exceeded, and includes notifying schools, day care centers and health care providers in the area of the health effects of lead and its impact on children.	EPA estimated that additional labor and material costs would result in total annual costs of $859,200 for PWSs impacted nationwide.
A PWS on reduced monitoring that has an action level exceedance will be required to resume standard monitoring schedules for monitoring lead at taps.	A PWS would go from monitoring once every three years to twice a year, meaning an additional five monitoring events. The required number of samples depends on the PWS size; the smallest PWS serving 100 or less people must take five samples per monitoring event; PWSs serving more than 100,000 people must take 100 samples per monitoring event. EPA estimated that out of 72,589 PWSs nationwide,

	994 would exceed the 90th percentile; approximately 925 of those would already have been on reduced monitoring. EPA further estimated total costs to PWSs nationwide would be $2,636,000 annually.

The LCR changes should be a lesser impact than changes under RTCR. Compared to PWSs nationwide, Arizona PWSs tend to be newer and the high mineral content in surface and groundwater helps to inhibit leaching from lead or copper lines. In Arizona, 1,326 CWSs and NTNCWSs must monitor for lead and copper; 857 of those systems are on the three year reduced monitoring schedule. No PWSs in Arizona have qualified or have sought to qualify for the nine year reduced monitoring. Since 2010, only 34 PWSs have triggered the 90th percentile level, and only one in 2015.

G. Probable impact on public and private employment:

ADEQ does not anticipate that private or public employment will be directly affected by these rules, though it is possible that some certified operators who work on a contract basis could be impacted by RTCR. The situation would be an operator that had to conduct monthly visits to a small PWS in order to conduct monthly TC sampling. If the PWS qualified for reduced monitoring, less required sampling could mean fewer visits for a certified operator. However, RTCR could result in the opportunity for other types of visits by a certified operator. A certified operator could conduct a more complex evaluation for a PWS in the form of Level 1 or 2 Assessment in response to a TC positive result. ADEQ is not able to quantify the level of impact.

H. Probable impact on small businesses:

In the RTCR rulemaking, EPA considered small entities to be PWSs serving 10,000 or fewer people based on a provision in the 1996 Amendments to the SDWA for small system flexibility. ADEQ prefers to define a small business as a small water system, which is defined as a water system that serves 3,300 persons or fewer. In Arizona about 1,391 PWS serve 3,300 or less.

The LCR provision of clarifying a minimum of five samples impacts smaller systems serving (101 to 500) that have less than five taps. These systems will have to collect multiple samples on different days from the same tap in order to achieve the total number of required samples, which could result in sampling costs of $350 annually. But very small systems serving 100 or less will only need to take five initial samples, at a cost of $175. Other than this provision, the LCR impacts small PWSs equally as larger PWSs, other than small PWSs tend to have difficulty raising capital for infrastructure

projects because of a smaller customer base.

The RTCR has specific provisions that positively impact small PWSs. One change that ADEQ will institute is quarterly routine monitoring for total coliform for all non-CWS serving 1,000 or less and using only ground water. This would impact 723 Arizona PWSs and could result in an annual cost savings of $360 for each PWS (four samples at $45 versus 12 samples at $45). Another change, as described in Section F, is the reduction in required repeat sampling in response to a TC positive. For PWSs serving less than 1,000, the difference in conducting repeat samples (ranging from four to 20 samples to just three repeat samples) results in cost savings of $45 to $765.

The RTCR also allows PWSs that qualify to go on reduced monitoring to either quarterly or annual routine sampling. The PWS must serve less than 1,000 and use ground water only. Based on the criteria to qualify for reduced monitoring, ADEQ estimated how many Arizona systems could qualify based on data in SDWIS. ADEQ eliminated any PWSs that did not currently have a certified operator, had a significant deficiency during the last sanitary survey, had a score under EPA's ETT scoring (Enforcement Targeting Tool), or had a fecal coliform or *E. Coli* positive within last five years.

PWS Type	Number of PWSs	Reduced Monitoring schedule	Number of Potential PWS that Could Qualify	Anticipated Cost Savings if Reduced Monitoring
CWSs	504	Quarterly	About 66 systems could qualify (13%)	Switching to quarterly monitoring saves a system approximately $360 in sampling costs.
NTNCWS	179	Annually	About 64 systems could qualify (36%)	Switching to annual monitoring saves a system approximately $135 per year in sampling costs.
TNCWS	537	Annually	About 372 systems could qualify (69 %)	Switching to annual monitoring saves a system approximately $135 per year in sampling costs.

Seasonal systems tend to be smaller PWSs, and normally sample monthly during operation. Seasonal systems potentially could qualify for quarterly or annual monitoring. Seasonal systems would have an additional requirement to certify completion of approved start-up procedures.

Reduced monitoring under RTCR is a choice, not a requirement. The PWS would need to weigh the

cost/benefit of reduced monitoring for itself. ADEQ did not evaluate the costs of the requirement that the PWS be visited by a certified operator each month regardless of whether a TC sample is taken or not. Also, a small PWS facing corrective action requiring infrastructure improvements could have difficulty raising capital for infrastructure projects because of a smaller customer base. However EPA estimated that only 0.04% nationwide of small systems would experience an impact of more than 1% of revenues, and that none of the small systems would experience an impact of 3% or greater of revenue.

A small business can also be a certified operator providing services. Generally, a small PWS is less complex and easier to operate than a larger facility, and may not be required to have an operator onsite. Some small PWSs employ a remote operator whose frequency of site visits could be daily, weekly, or monthly, depending on the needs of the PWS. ADEQ is aware of some operators who are remote operators for 50 or more facilities. Generally, the certified operator conducts TC sampling. Less required sampling could mean fewer visits for a certified operator; however, a certified operator could have to conduct a more complex evaluation for a PWS in the form of Level 1 or 2 Assessment in response to a TC positive result.

1) **The administrative and other costs required for compliance with the proposed rule making.**
   Under the RTCR, all PWSs will incur some initial one-time costs, including:
   - Reading and understanding the rule, and training employees on rule requirements. EPA estimated that PWSs require a total of four hours to read and understand the rule, and a total of eight hours to plan and assign appropriate personnel and resources to carry out rule activities, resulting in national annualized cost estimates for rule implementation and annual administration of $2.77 million to $4.00 million for 155,000 active PWSs.
   - Revising existing sample siting plans to identify sampling locations and collection schedules. EPA estimated that PWSs require two to eight hours to revise their sample siting plan, depending on PWS size, resulting in national annualized cost estimates for revising sample siting plans of $0.59 million to $0.84 million for 155,000 active PWSs.
2) **A description of the methods prescribed in section 41-1035 that the agency may use to reduce the impact on small businesses, with reasons for the agency's decision to use or not to use each method.**
   (i) Establish less costly schedules or less stringent deadlines for compliance, or consolidate or simplify the rule's compliance or reporting requirements in the proposed rule making.
   The RTCR reduces some existing sampling requirements for smaller PWSs, and allows

monitoring to be reduced to annually for qualifying small PWS that use groundwater only.

(ii) Establish less costly compliance requirements, including establishing performance standards to replace design or operational standards in the proposed rule making.

As a federally-delegated program, ADEQ's laws, rules, and program must comply with EPA requirements.

(iii) Exempt small businesses from any or all requirements of the proposed rule making.

As a federally-delegated program, ADEQ's laws, rules, and program must comply with EPA requirements.

3) The probable cost and benefit to private persons and consumers who are directly affected by the proposed rule making.

Benefits from the RTCR may include avoidance of a full range of health effects from the consumption of fecally contaminated drinking water, including the following: acute and chronic illness, endemic and epidemic disease, waterborne disease outbreaks, and death. It is anticipated that the requirements of the RTCR will help reduce pathways of entry for fecal contamination and/or waterborne pathogens into the distribution system, thereby reducing risk to both the general population as well as to sensitive subpopulations.

The RTCR could indirectly impact customers of a CWS, if a CWS passed the entire cost increase resulting from the rule on to its customers. EPA estimated that the average annual water bill could increase by six cents or less on average per year. Household costs tend to decrease as system size increases, due mainly to the economies of scale for the corrective actions. Customers served by a small CWS that have to take corrective actions as a result of the rule would incur slightly larger increases in their water bills. EPA estimated that the nine percent of households belonging to CWSs nationwide that perform corrective actions over the 25-year period of analysis experience an increase in annual net household costs of less than $0.70 on average for CWSs serving greater than 4,100 people to approximately $4.50 on average for CWSs serving 4,100 or fewer people on an annual basis. Costs to TNCWSs and NTNCWSs were not calculated since their costs are not typically passed through directly to households.

Under the Lead and Copper Rule, the revisions do not affect the action levels, corrosion control requirements, lead service line replacement requirements, or other provisions that directly determine the degree to which the rule reduces risks from lead and copper. EPA did not quantify the changes in associated health benefits. ADEQ believes the Lead and Copper Rule has indirect benefits as to improving customer awareness, especially of directly notifying customers, which

helps customers determine what actions to take to reduce their exposure to lead and copper in drinking water.

I. Probable effect on state revenues:

There are no fees associated with these rules. This rulemaking will have no impact on state revenues.

J. Description of less intrusive or less costly alternative methods of achieving the proposed rulemaking:

As a federally-delegated program, ADEQ's laws, rules, and program must comply with EPA requirements. Some parts of the proposed rules reduce existing sampling requirements for smaller PWSs, and allow for reduced monitoring.

K. Explanation of the limitations of the data available for this economic small business and consumer impact statement.

ADEQ relied on its SDWIS/State for any numbers reported. ADEQ generally does not track information related to a PWS's costs, such as the cost of public notice, internal training costs, water treatment costs, or infrastructure repairs or improvements. ADEQ relied on EPA's economic analysis for each rulemaking, which examined data for 155,000 active PWSs nationwide.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

In item #12 of the Notice of Proposed Rulemaking Preamble, ADEQ inadvertently omitted listing the incorporation by reference for R18-4-103(B). ADEQ described the incorporation by reference in the Preamble under item #5 "Additional Changes". ADEQ also made various grammatical and technical changes at the suggestion of the Governor's Regulatory Review Council staff.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agency response to the comments:

ADEQ received one comment, inquiring why the definition of "Protected water source" was being added.

ADEQ's response is that protected source is not defined at the federal level but ADEQ wants to provide clarity to the regulated community and not leave this up to interpretation after the rule is implemented. ADEQ directly provided this response to the commentor and did not receive any other comments.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

This rule does not require permits, but establishes applicability and general prohibitions necessary to protect public health.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The administrative rule is consistent with federal law and is no more stringent than federal law.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No person has submitted an analysis to the agency that compares the rule's impact on the competitiveness of business in this state to the impact on business in other states.

13. List of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

R18-4-102(A) 40 CFR Parts 141 and 142, July 1, 2014 edition.

R18-4-103(B) American National Standards Institute/NSF International Standard 60 - 2014a, Drinking Water Treatment Chemicals - Health Effects, November 17, 2014 edition.
American National Standards Institute/NSF International Standard 61 - 2014a, Drinking Water System Components - Health Effects, October 19, 2014 edition.

14. Whether the rule was previously made, amended or repealed as an emergency rule, If so, cite the notice published in the *Register* as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rule follows:

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY

SAFE DRINKING WATER

ARTICLE 1. PRIMARY DRINKING WATER REGULATIONS

Section

R18-4-102. Incorporation by Reference of 40 CFR 141 and 142

R18-4-103. General - 40 CFR 141, Subpart A

R18-4-105. Monitoring and Analytical Requirements - 40 CFR 141, Subpart C

R18-4-121. Ground Water Rule - 40 CFR 141, Subpart S

R18-4-126. Revised Total Coliform Rule 40 CFR Part 141, Subpart Y

ARTICLE 2. STATE DRINKING WATER REGULATIONS

R18-4-210. Total Coliform; Special Events

ARTICLE 1. PRIMARY DRINKING WATER REGULATIONS

R18-4-102. Incorporation by Reference of 40 CFR 141 and 142

A. Unless otherwise specified in this Chapter, all references to regulations in 40 CFR 141 and 142 in this Chapter refer to the July 1, ~~2007~~ 2014, version of the regulations. Copies of the incorporated material are available for review at the Arizona Department of Environmental Quality, 1110 W. Washington St., Phoenix, AZ, 85007, and are available from~~:~~

~~1. Code of Federal Regulations: U.S. Government Printing Office, online bookstore, http://bookstore.gpo.gov/; 866-512-1800; orders@gpo.gov;~~

~~2. Federal Register: http://www.gpoaccess.gov/fr/index.html~~ the U.S. General Printing office at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

B. A reference to a federal statute or regulation in a federal statute or regulation incorporated by reference in this Chapter shall refer to and incorporate by reference the referenced statute or regulation as of the date specified in subsection (A), unless the referenced statute or regulation is incorporated by reference elsewhere in this Chapter in a modified form, in which case the reference shall be to the statute or regulation as incorporated in this Chapter.

C. Documents incorporated by reference in a federal statute or regulation incorporated by reference in this Chapter are also incorporated by reference in this Chapter, as of the date specified in the federal statute or regulation.

D. A federal rule incorporated by reference in this Chapter shall include all "Effective Date Notes" associated with the federal rule.

E. The term "State" or "primacy agency" in the text of a federal statute or regulation incorporated by reference in this Chapter shall mean the Arizona Department of Environmental Quality unless otherwise noted.

R18-4-103. General - 40 CFR 141, Subpart A

A. 40 CFR 141, Subpart A (40 CFR 141.1 through 141.6), is incorporated by reference as of the date specified in R18-4-102, except for the changes listed in this Section; this incorporation does not include any later amendments or editions.

B. The definition of "State" in 40 CFR 141.2 is not incorporated by reference. In addition to the terms defined in A.R.S. §§ 49-201 and 49-351, and 40 CFR 141.2, in this Chapter, unless otherwise specified, the terms listed below have the following meanings.

"Air-gap separation" means a physical separation between the discharge end of a supply pipe and the top rim of its receiving vessel of at least 1 inch or twice the diameter of the supply pipe, whichever is greater.

"ANSI/NSF Standard 60" means American National Standards Institute/NSF International Standard 60 - ~~2000a~~ 2014a, Drinking Water Treatment Chemicals - Health Effects, November ~~2000~~ 17, 2014, incorporated by reference and on file with the Department. This material is available from NSF International, 789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, USA; (734) 769-8010; http://www.nsf.org. This incorporation by reference includes no future editions or amendments.

"ANSI/NSF Standard 61" means American National Standards Institute/NSF International Standard 61 - ~~2000a~~ 2014a, Drinking Water System Components - Health Effects, ~~November 2000~~ October 19, 2014, incorporated by reference and on file with the Department. This material is available from NSF International, 789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, USA; (734) 769-8010; http://www.nsf.org. This incorporation by reference includes no future editions or amendments.

"Backflow" means a reverse flow condition that causes water or mixtures of water and other liquids, gases, or substances to flow back into the distribution system. Backflow can be created by a difference in water pressure (backpressure), a vacuum or partial vacuum (backsiphonage), or a combination of both.

"Backflow-prevention assembly" means a mechanical device used to prevent backflow.

"Capacity" means the overall capability of a water system to consistently produce and deliver water meeting all national and state primary drinking water regulations in effect when new or modified operations begin. Capacity includes the technical, managerial, and financial capacities of the water system to plan for, achieve, and maintain compliance with applicable national and state primary drinking water regulations.

"Capacity development" means improving public water system finances, management, infrastructure, and operations, so that the public water system can provide safe drinking water consistently, reliably, and cost-effectively.

"Capacity development report" means an annual report adopted by the Department that describes progress made in improving technical, managerial, or financial capacity of public water systems in Arizona.

"Cross connection" means a physical connection between a public water system and any source of water or other substance that may lead to contamination of the water provided by the public water system through backflow.

"Distribution system" means a pipeline, appurtenance, device, and facility of a public water system that conducts water from a source or water treatment plant to persons served by the system.

"Department" means the Arizona Department of Environmental Quality.

"Double check valve assembly" means a backflow-prevention assembly that contains two independently acting check valves with tightly closing, resilient-seated shut-off valves on each end of the assembly and properly located, resilient-seated test cocks.

"Elementary business plan" means a document containing all of the items necessary for a complete review of the technical, managerial, and financial capacity of a new public water system under Article 6 of this Chapter.

"Entry point to the distribution system" means a compliance sampling point anywhere on a finished water line that is representative of a water source and located after the well, surface water intake, treatment plant, storage tank, or pressure tank, whichever is last in the process flow, but prior to where the water is discharged into the distribution system and prior to the first service connection.

"EPA" means the United States Environmental Protection Agency.

"Exclusion" means a waiver granted by the Department under R18-4-219 from a requirement of this Chapter that is not a requirement contained in a federal drinking water law.

"Exemption" means a form of temporary relief from a maximum contaminant level or treatment technique granted by the Department to a public water system, pending installation and operation of treatment facilities, acquisition of an alternate source, or completion of improvements in treatment processes to bring the system into compliance with drinking water regulations.

"Financial capacity" means the ability of a public water system to acquire and manage sufficient financial resources for the system to achieve and maintain compliance with the federal Safe Drinking Water Act.

"Groundwater system" means a public water system that is supplied solely by groundwater that is not under the direct influence of surface water.

"Lead-free" ~~means that the pipe, solder, or flux used in the installation or repair of a public water system, or in a residential or non-residential facility that provides water for human consumption and is connected to the public water system, meets the following criteria:~~

- ~~No solders or flux contain more than 0.2% lead;~~
- ~~No pipes or pipe fittings contain more than 8.0% lead; and~~
- ~~When used with respect to plumbing fittings and fixtures intended by the manufacturer to dispense water for human ingestion, "lead-free" means fittings and fixtures that are in~~

~~compliance with ANSI/NSF Standard 61, Section 9.~~ has the same meaning prescribed in A.R.S. § 49-353(B).

"Major stockholder" means a person who has 20% or more ownership interest in a public water system.

"Master priority list" means a list created by the Department that ranks public water systems according to the criteria in R18-4-803.

"Monitoring assistance program" means the program established by A.R.S. § 49-360 to assist public water systems with mandatory monitoring for contaminants and administered by the Department under 18 A.A.C. 4.

"Operational assistance" means professional or financial assistance provided to a public water system to improve the technical, managerial, or financial operations of the public water system.

"Protected water source" means a groundwater source that:

- Meets the requirements of A.A.C. R18-5-502(D);
- Is not located within 100 feet of a drywell as defined by A.R.S. § 49-331(3), and
- Is not located within 100 feet of a condition that can constitute an environmental nuisance as described in A.R.S. § 49-141(A).

"Reduced pressure principle backflow-prevention assembly" means a backflow-prevention assembly that contains two independently acting check valves; a hydraulically operating, mechanically independent pressure differential relief valve located between the two check valves; tightly closing, resilient seated shut-off valves on each end of the check valve assembly; and properly located resilient seated test cocks.

"Service connection" means a location at the meter or, in the absence of a meter, at the curbstop or building inlet.

"Service line" means the water line that runs from the corporation stop at a water main to the building inlet, including any pigtail, gooseneck, or fitting.

"State" means the Arizona Department of Environmental Quality, except during any time period during which the Department does not have primary enforcement responsibility pursuant to Section 1413 of the Act, the term "State" means the Regional Administrator of EPA Region 9.

"System evaluation assistance" means assistance provided to assess the status of the public water system's technical, managerial, and financial components, with emphasis on infrastructure status.

"Technical assistance" means operational assistance, system evaluation assistance, or both.

"Treatment" means a process that changes the quality of water by physical, chemical, or biological means.

"Treatment technique" means a treatment procedure promulgated by EPA in lieu of an MCL.

"Variance" means relief from a maximum contaminant level or treatment technique granted by the Department to a public water system when characteristics of a system's raw water source preclude the system from complying with maximum contaminant levels prescribed by drinking water regulations, despite application of best technology, treatment techniques, or other means available to the system.

"Water main" means a pipe that is exterior to buildings and is used to distribute drinking water to more than one property.

"Water Infrastructure Finance Authority" means the entity created under A.R.S. § 49-1201 et seq. to provide financial assistance to political subdivisions, Indian tribes, and eligible drinking water facilities for constructing, acquiring, or improving wastewater treatment facilities, drinking water facilities, nonpoint source projects, and other related water quality facilities and projects.

"Water treatment plant" means a process, device, or structure used to improve the physical, chemical, or biological quality of the water in a public water system. A booster chlorination facility that is designed to maintain an effective disinfectant residual in water in the distribution system is not a water treatment plant.

C. 40 CFR 141.4, entitled "variances and exemptions," is incorporated by reference subject to the following modifications:

1. The phrase "entity with primary enforcement responsibility" is changed to "Department."
2. When reviewing and acting on requests for variances and exemptions, the Department shall act in accordance with the procedures at 42 U.S.C. 300g-4 and 300g-5 (2004) of the Act (Public Health Service Act §§ 1415 and 1416), including:
   a. The Department shall require a public water system granted a variance under subsection (C) to comply with the requirements in a compliance schedule as expeditiously as practicable.
   b. The Department shall promptly notify EPA of all variances and exemptions granted by the Department in the manner specified in the Act.
   c. The Department shall enforce a schedule or other requirement on which a variance or exemption is conditioned under 42 U.S.C. 300g-3 and A.R.S. § 49-354, as if the schedule or other requirement is part of a national primary drinking water regulation incorporated by reference in this Chapter.
   d. "Treatment technique requirement," for the purpose of subsection (C), means a requirement in a national primary drinking water regulation which specifies for a contaminant, in accordance with 42 U.S.C. 300f(1)(C)(ii), each treatment technique known to lead to a reduction in the level of the contaminant sufficient to satisfy the requirements of 42 U.S.C. 300g-1(b).

e. If the Department grants a variance or exemption, the Department shall prescribe:

i. A compliance schedule that includes increments of progress or measures to develop an alternative source of water supply; and

ii. An implementation schedule that includes such control measures as the Department deems necessary for each contaminant.

D. 40 CFR 142, 142.2, 142.20, and Subparts E, F, G, and K, are incorporated by reference as of the date specified in R18-4-102, with the following changes; this incorporation does not include any later amendments or editions. The following substitutions are to be applied in the listed order.

1. 40 CFR 142.46, 142.302, 142.313 are not incorporated by reference.
2. 40 CFR 142.20(a), (b). The phrase "States with primary enforcement responsibility" is changed to "the Department"; the second sentences in 142.20(a) and 142.20(b) are deleted.
3. 40 CFR 142.60(b), 142.61(b). The phrase "Administrator in a state that does not have primary enforcement responsibility or a state with primary enforcement responsibility (primacy state) that issues variances" is changed to "Department."
4. ~~40 CFR 142.44(b)(2), 142.54(b)(2). The phrase "the agency of the State in which the system is located which is responsible for the State's water supply program[,] and to" is deleted; "Administrator's" is changed to "Department's."~~

~~5.~~ 40 CFR 142.40(a), (b); 142.41; 142.50(a); 142.51. The phrase "a State that does not have primary enforcement responsibility" is changed to "Arizona".

~~6.~~ 5. 40 CFR 142.60(b), (c), (d); 142.61(b), (c). The phrase "Administrator or [`primacy' or `primary'] state that issues variances" is changed to "Department."

~~7.~~ 6. 40 CFR 142.60(b), (d); 142.61(b), (d); 142.62(e), (g)(1); 142.65(a)(4). The phrase "Administrator or [the] primacy state" is changed to "Department"; the phrase "Administrator's or primacy state's" is changed to "Department's."

~~8.~~ 7. In 40 CFR 142, Subpart K:

a. The phrases "[`a' or `the'] State or [the] Administrator," "Administrator or State," "the public water system, State and the Administrator," and "a State exercising primary enforcement responsibility for public water systems (or the Administrator for other systems)" are changed to "the Department."

b. 40 CFR 142.301. The last sentence is deleted.

c. 40 CFR 142.303(b). The phrase "a State exercising primary enforcement responsibility for public water systems" is changed to "the Department."

d. 40 CFR 142.306(b)(2). The phrase "(or by the Administrator in States which do not have primary enforcement responsibility)" is deleted.

e. 40 CFR 142.308(a), 142.309(c). The phrase "the State, Administrator, or [the] public water system as directed by the State or Administrator" is changed to "the Department or the public water system, as determined by the Department."

f. 40 CFR 142.308(b). The text of this subsection is replaced by the following: "At the time of proposal, the Department must publish a notice in the Arizona Administrative Register or a newspaper or newspapers of wide circulation in the affected region of the State. This notice shall include the information listed in paragraph (c) of this section."

g. 40 CFR 142.308(c)(7). The phrase "the primacy agency" is changed to "the Department."

~~9.~~ 8. In all parts of 40 CFR 142 incorporated by reference other than Subpart K, the term "Administrator" is changed to "Department"; the pronoun "he" is changed to "the Department"; and the pronoun "his" is changed to "the Department's."

~~10.~~ 9. In all parts of 40 CFR 142 incorporated by reference, the term "a state" or "the state" is changed to "the Department"; the term "the State's" is changed to "the Department's."

~~11.~~ 10. 40 CFR 142.62(h)(3). The term "State-approved" is changed to "Department-approved."

~~12. 40 CFR 142.44(b), 142.54(b). The text of these subsections is replaced by the following: "Public notice of an opportunity for hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, and shall meet the notice requirements of A.A.C. R18-1-401."~~

11. In 40 CFR 142.44(b). The text of this subsection is replaced by the following: “Public notice of an opportunity for hearing on a variance schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, and shall meet the notice requirements of A.A.C. R18-1-401.”

12. In 40 CFR 142.54(b). The text of this subsection is replaced by the following: “Public notice of an opportunity for hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, and shall meet the notice requirements of A.A.C. R18-1-401.”

13. 40 CFR 142.44(d), 142.54(d). The third, fourth, and fifth sentences of these subsections are deleted.

14. 40 CFR 142.44(e), 142.54(e). The text of these subsections is replaced by the following: "A hearing convened pursuant to paragraph (d) of this section shall be conducted according to the procedural requirements of A.A.C. R18-1-402."

E. 40 CFR 141.5 is not incorporated by reference.

R18-4-105. Monitoring and Analytical Requirements - 40 CFR 141, Subpart C

A. 40 CFR 141, Subpart C (40 CFR 141.21 through 141.29 and Appendix A), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. ~~40 CFR 141.21, coliform sampling, is modified as follows:~~

~~1. 40 CFR 141.21(a)(3)(i): the phrase "each calendar quarter" is replaced with "each calendar month."~~

~~2. 40 CFR 141.21(a)(3)(i) and (ii): the phrase "less than once/year" is replaced with "less than one sample per quarter."~~

~~3.~~ 40 CFR 141.21(c)(2), 141.21(d) and 141.21(f) are not incorporated by reference.

C. 40 CFR 141.22: the last sentence of 141.22(a) is replaced by the following: "Turbidity measurements shall be made using analytical methods approved by EPA and the Arizona Department of Health Services."

D. 40 CFR 141.23(k) is not incorporated by reference.

E. 40 CFR 141.24(f)(17), 141.24(f)(20), and 141.24(h)(19) are not incorporated by reference.

F. 40 CFR 141.25: the following text replaces the text of 40 CFR 141.25(a) and (b): "Analysis for the following contaminants shall be conducted to determine compliance with 40 CFR 141.66 (radioactivity) using analytical methods approved by EPA and the Arizona Department of Health Services:

1. Naturally occurring contaminants: gross alpha and beta, gross alpha, radium 226, radium 228, and uranium.
2. Man-made contaminants: radioactive cesium, radioactive iodine, radioactive strontium 89, 90, tritium, and gamma emitters."

G. 40 CFR 141.27, alternate analytical techniques, is not incorporated by reference; the following text is substituted in its place: "The use of an alternate analytical technique approved by EPA and the Arizona Department of Health Services shall not decrease the frequency of monitoring required by this Chapter."

H. 40 CFR 141.28:

1. In 40 CFR 141.28(a), the term "State" is changed to "Arizona Department of Health Services."
2. In 40 CFR 141.28(b), the term "State" is changed to "Arizona Department of Health Services or Arizona Department of Environmental Quality."
3. A new subsection (c) is added: "A laboratory that performs drinking water analysis in Arizona shall be certified by EPA or the Arizona Department of Health Services."

R18-4-121. Ground Water Rule - 40 CFR 141, Subpart S

A. 40 CFR Part 141, Subpart S (40 CFR 141.400 through 141.405), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.402(a)(4) is modified as follows:

Consecutive and wholesale systems.

(i) In addition to the other requirements of this paragraph (a), a consecutive ground water system that has a total coliform-positive sample, collected under § 141.21(a) until March 31, 2016 or under §§ 141.854 through 141.857 beginning April 1, 2016, within 24 hours of being notified of the total coliform-positive sample must:

(A) Notify the wholesale system(s) and,

(B) Collect a sample from its consecutive connection with the wholesale ground water system and analyze it for a fecal indicator under paragraph (c) of this section.

(ii) If the sample collected under paragraph (a)(4)(i)(B) of this section is fecal indicator-positive, within 24 hours:

(A) The consecutive system must notify the wholesale ground water system, and

(B) Both systems must consult with the Department on additional sampling to meet the requirements of paragraph (a)(3) of this section.

R18-4-126. Revised Total Coliform Rule 40 CFR Part 141, Subpart Y

A. 40 CFR Part 141, Subpart Y (40 CFR 141.851 through 141.861), is incorporated by reference as of the date specified in R18-4-102, subject to modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.851(d), 141.852, 141.853(c)(2), and 141.854(h)(2)(i) – (ii) are not incorporated by reference.

ARTICLE 2. STATE DRINKING WATER REGULATIONS

R18-4-210. Total Coliform; Special Events

A. A water system that does not meet the definition of a public water system, but serves a large number of persons for a short duration of time, such as a special event, ~~shall comply with the MCL for total coliform if the~~ must take corrective action as required in R18-4-126 after receiving a positive coliform result, including taking additional samples until all samples test negative for total coliform and negative for E.coli if:

1. The total number of user-days exceeds 600.

2. A user-day is calculated by multiplying the number of days the event will run by the average number of persons expected to be served each day.

B. The water system shall submit a minimum of two ~~samples~~ sample results to the Department at least seven days before the beginning of the special event. The water system shall submit a minimum of one additional sample result to the Department for each day of the special event.

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY -

SAFE DRINKING WATER

ARTICLE 1. PRIMARY DRINKING WATER REGULATIONS

ARTICLE 2. STATE DRINKING WATER REGULATIONS

Economic, Small Business and Consumer Impact Statement

Background on Safe Drinking Water Act Regulation

The Safe Drinking Water Act (SDWA) regulates public water systems. A Public Water System (PWS) provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year. Under the rules, PWSs are categorized as follows:

- Community water systems (CWSs) – serves 15 or more service connections used by year-round residents or that serves 25 or more year-round residents. This PWS supplies water to the same population year-round, such as for a residential community.
- Nontransient, Noncommunity water systems (NTNCWSs) – serves 15 or more service connections that are used by the same persons for at least six months per year, or serves the same 25 or more persons for at least six months per year. This PWS could be a school, factory, or office building that has its own water system.
- Transient Noncommunity water systems (TNCWSs) – serves 15 or more service connections, but does not serve 15 or more service connections that are used by the same persons for more than six months per year; or serves an average of at least 25 persons per day for at least 60 days per year, but does not serve the same 25 persons for more than six months per year. A TNCWS could be a business that must operate a water system ancillary to its business, such as a restaurant in a rural area that uses and serves water from a well, or a government- owned water system for a state campground.

Under the SDWA regulations, EPA sets maximum contaminant levels ("MCL") on contaminants. PWSs are required to monitor (sample and test) their water for the listed contaminants, and to submit regular reports to the state agency. If an MCL is exceeded, usually the PWS must retest. A PWS also may need to take corrective action. Another element of the regulatory format is CWSs must compile and publish regular reports (Consumer Confidence Reports) for its customers/users regarding the safety of the drinking water. EPA also sets regulatory criteria based on:

- The population served by the PWS;
- The category of the PWS;
- The PWS's source water type of drinking water (ground water, surface water, or ground water under the direct influence of surface water);
- Type of treatment a PWS uses on its source water; and
- Whether the PWS uses disinfection.

The two major changes in this rulemaking are the updates to the federal rules of the Revised Total Coliform Rule and the Lead and Copper Rule. EPA compiled an economic analysis for each rulemaking. EPA based much of its analysis from its national database, Safe Drinking Water Information System Federal Version (SDWIS/FED), which examined data for 155,000 active PWSs nationwide. ADEQ relied on its state version of SDWIS/State for any Arizona numbers reported. In Arizona, there are 1,531 PWSs, serving a total population of about 6,552,434.

A. Brief summary of the information included in the economic, small business and consumer impact statement:

The Revised Total Coliform Rule (RTCR) should benefit all of Arizona's reported 1,531 PWSs as it reduces or eliminates costs associated with eliminating the non-acute MCL violation for total coliforms, reduces the required repeat sampling, and eliminates the subsequent public notification requirements. PWSs could face some costs for taking corrective action if required. Some PWSs will be affected by the clarifications to the Lead and Copper Rule, mainly for actually notifying customers of sample results from the customers' taps.

B. Name and address of agency employees who may be contacted to submit or request additional data on the information included in the economic, small business and consumer impact statement:

Name:	Wendy LeStarge
Address:	Arizona Department of Environmental Quality Water Quality Division 1110 W. Washington Street Phoenix, Arizona 85007
Telephone:	(602) 771-4836 (Toll-free number in Arizona: (800) 234-5677)
Fax:	(602) 771-4834
E-mail:	lestarge.wendy@azdeq.gov

C. Identification of persons who will be directly affected by, bear the costs of or directly benefit from the rulemaking:

RTCR will affect all PWSs. Lead and Copper rule changes affect only CWSs and NTNCWSs. Arizona PWSs categories are broken down as follows:

- CWSs = 752,
- NTNCWSs = 574, and
- TNCWSs = 205.

Operators of PWS also can be affected by the proposed rules. Operators of drinking water treatment plants and distribution systems are responsible for all decisions about process control or system integrity that affects public health and the environment. Many operators conduct sampling for the PWS. Every PWS is required to ensure that it has a certified operator in direct responsible charge. A.A.C. R18-5-104(A)(1). There are 5,441 certified operators for drinking water treatment or distribution systems. Some operators work as employees of the PWS; others may work as their own business, usually on a contract basis for smaller PWSs. It is possible that some certified operators who work on a contract basis could be impacted by RTCR as described in Section G.

D. Cost-benefit analysis of probable costs and benefits to ADEQ and other agencies:

ADEQ is the main agency impacted by the proposed changes. ADEQ will not add any new FTEs, but will reallocate existing staff in order to:

- Develop and adopt state regulations, procedures, and forms;
- Modify SDWIS to track new required PWS reports;
- Review completed RTCR Level 1 and Level 2 assessment forms required to be filed by PWSs;
- Review lead and copper data, prepare conclusions and letters to systems, and coordinate with PWSs.

The Arizona Department of Health Services (ADHS) has statutory responsibility for licensing the environmental laboratories that public water systems must use to conduct analysis of their drinking water monitoring samples. Although ADEQ is the agency with primary responsibility for Arizona's safe drinking water primacy, ADEQ and ADHS work together to maintain Arizona's primacy, since both agencies must adopt regulations that are as stringent as EPA's drinking water regulations. ADHS will likely incur administrative costs associated with promulgating rulemaking necessary to update its rules.

E. Cost-benefit analysis of probable costs and benefits to political subdivisions:

Political subdivisions and government entities that own PWSs will be impacted by this rulemaking as with any other PWS. Out of 1,531 PWSs in Arizona, 446 are publicly-owned. PWSs can be publicly owned by federal, state, or local entities. Another type of public entity is a Domestic Water Improvement District (DWID), which is a special type of County Improvement District. A.R.S. Title 48, Chapter 6. Maricopa and Pima Counties are co-regulators with ADEQ; also Maricopa County owns and operates six PWSs; Pima County has eleven PWSs.

DWIDs and many cities and towns own and operate CWSs to provide drinking water to their residents. The federal government owns and operates CWSs for military bases and some federal parks. Federal, state, and local governments and school districts also own and operate NTNCWSs such as for an office building or a school. Federal, state, and local governments also own and operate TNCWSs such as for a campground or park.

Maricopa and Pima Counties could also incur some costs because of their role as regulators. ADEQ has delegated authority to enforce the SDWA to Maricopa and Pima counties, within their jurisdictions. ADEQ has been working with both counties to develop procedures and forms for RTCR. Both counties will likely incur some costs similar to ADEQ, such as for reviewing completed Level 1 and Level 2 assessment forms required to be filed by PWSs under the RTCR. Neither county is delegated responsibility for data management and neither county will need to adopt regulations. Both counties assess fees for activities such as inspections. They could face costs related to inspections located within their respective jurisdictions, but should be able to recover their costs through fees. Because the Lead and Copper rule is mainly a review of sampling data and follow-up, neither county should incur costs related to the Lead and Copper Rule.

F. Cost-benefit analysis of probable costs and benefits to businesses:

This section discusses the costs and benefits of this rulemaking to all 1,531 Arizona PWSs, although 1,085 are privately-owned PWS. Privately-owned CWSs include utility companies, RV parks, and sometimes homeowners associations. Privately-owned NTNCWSs could be a business or non-profit organization providing drinking water ancillary to its office or business building. Privately-owned TNCWSs could include a restaurant. Costs, and the ability to manage costs are affected by the category of PWS. As CWSs generally are funded through rates, the owner of a CWS has the ability to increase rates. Water use for NTNCWSs and TNCWSs tends to be ancillary, such as for a school or a restaurant; the ability to cover any increased costs is more limited.

Under the current rules, all PWSs already collect water samples for total coliform and *E. coli* on a monthly basis and have them tested for the presence of total coliforms by a state certified laboratory. The PWS must also report sample results to ADEQ and maintain records. The number of samples a PWS collects depends on the size of the population served, ranging from one per month for a PWS serving less than 1,000, to 480 samples per month for a PWS serving more than 3,960,001. For any sample that is total coliform positive (TC positive), a PWS must analyze the sample for *E. coli* and collect repeat samples for each TC positive sample. The number of required repeat sampling depends on the results of additional TC positive samples and on the size of the PWS. For a PWS serving less than 1,000, repeat sampling ranges from four to 20 extra samples. For a PWS serving over 1,000, repeat sampling ranges from three to 12 extra samples. Two TC positive samples result in a non-acute MCL violation, and requires the PWS to issue a Tier 2 public notification within 30 days.

RTCR eliminates the non-acute MCL violation for total coliforms, lowers the required number of repeat samples, and eliminates the subsequent public notification requirements. Under RTCR, in response to a TC positive, the PWS conducts three repeat samples, regardless of its size. If any repeat sample is positive, a PWS may be required to conduct additional repeat sampling or conduct a Level 1 Assessment. A PWS may need to conduct a more rigorous evaluation under a Level 2 Assessment. The PWS must also fix any sanitary defects within a required timeframe. Corrective actions resulting from a Level 1 Assessment focus more on transient solutions or training than on permanent fixes to the PWS. Corrective actions taken as a result of Level 2 assessments are expected to find a higher proportion of structural/technical issues resulting in material fixes to the PWSs and distribution system.

Under the RTCR, all PWSs will incur some initial one-time costs, including:

- Reading and understanding the rule, and training employees on rule requirements. EPA estimated that PWSs require a total of four hours to read and understand the rule, and a total of eight hours to plan and assign appropriate personnel and resources to carry out rule activities, resulting in national annualized cost estimates for rule implementation and annual administration of $2.77 million to $4.00 million for 155,000 active PWSs.
- Revising existing sample siting plans to identify sampling locations and collection schedules. EPA estimated that PWSs require two to eight hours to revise their sample siting plan, depending on PWS size, resulting in national annualized cost estimates for revising sample siting plans of $0.59 million to $0.84 million for 155,000 active PWSs.

Under the RTCR, a PWS still may be required to develop and distribute a public notice, but these costs

should be minor. A PWS must issue some level of public notice if it incurs an *E. coli* MCL violation, a treatment technique violation for failure to conduct assessments or corrective action, or for a monitoring or reporting violation. PWSs will need to update the existing language used in the public notice based on language specified in the RTCR. ADEQ has template language on its website for PWSs to use. Also, if a CWS must conduct an assessment or incurs an *E. coli* MCL violation, the CWS will need to include that information in its Consumer Confidence Report, using language specified in the RTCR.

EPA estimated a net increase in national annualized cost estimates for conducting assessments of $0.69 million to $0.70 million. Corrective action costs are the most significant contributors to the net increase in costs for PWSs under the RTCR. EPA estimated a net increase in national annualized cost estimates for conducting corrective actions of $10.63 million to $12.44 million for 155,000 active PWSs.

PWSs should derive some benefits from RTCR as a result of reducing the number of repeat samples collected and eliminating the non-acute MCL public notification requirements. EPA estimated a net increase in national annualized cost estimates for monitoring of $0.95 million to $1.14 million due to stricter requirements to qualify for reduced monitoring. But this increase is mostly offset by reductions in additional routine and repeat monitoring. EPA estimated a net decrease in national annualized cost estimates incurred by PWSs for public notification of $3.35 million to $3.49 million.

ADEQ reviewed its records of 241 total coliform violations for 2009 through 2013. During this period under the RTCR, 225 out of 241 violations would not have been violations, and the public water systems would not have incurred costs of additional monitoring and issuing public notice. In Arizona, TC sampling costs are approximately $45 per sample; under RTCR, a PWS will save $45 for every repeat sample the PWS is no longer required to conduct. For PWSs serving less than 1,000, the difference in conducting repeat samples (ranging from four to 20 samples to just three repeat samples) results in cost savings of $45 to $765.

EPA predicted some indirect benefits resulting from RTCR, such as:

- Increases the likelihood that PWS operators, in particular those of systems required to conduct assessments and corrective action, will develop further understanding of system operations and improve and practice preventive maintenance.
- PWSs may choose corrective actions that also reduce other drinking water contaminants as a result of the fact that the corrective action eliminates a pathway of potential contamination into the distribution system.

- Implementing corrective actions should result in overall better water quality.

LEAD & COPPER RULE

Only CWSs and NTNCWSs must monitor drinking water for concentrations of lead and copper, usually at customer taps because lead and copper enters drinking water primarily through corrosion of plumbing materials. EPA does not regulate lead or copper through an MCL, but through an action level: 0.015 milligrams per liter (mg/L) for lead and 1.3 mg/L for copper. If lead or copper concentrations exceed an action level in more than 10% of customer taps sampled, the PWS must undertake a number of additional actions including:

- Control corrosion,
- Perform public education,
- Treat the source water, and
- Replace lead service lines if optimal corrosion control has been installed but lead levels continue to exceed action levels.

PWSs that can demonstrate low levels of lead or copper qualify for reduced monitoring of once every three years, and possibly once every nine years.

The LCR changes are not major; the action levels are not changed. Rather the LCR clarifies certain requirements related to lead:

Change	Impact and Costs
Clarifies that a minimum of five samples must be taken when conducting compliance monitoring	Impacts smaller systems (serving 101 to 500) that have less than five taps. These systems will have to collect multiple samples on different days from the same tap in order to achieve the total number of required samples. EPA did not have data on direct costs. In Arizona, lead and copper sampling costs about $35 per sample. A small system on initial monitoring would be taking 10 samples a year, so approximately $350 annually. But very small systems serving 100 or less will only need to take five initial samples, at a cost of $175.
Requires the PWS to notify the State before adding a new source of water or making any	ADEQ does not anticipate any impact or costs associated with this change. ADEQ has required that a

long-term treatment change.	PWS adding a new source of water or making any long-term treatment change must submit to a design review and receive approval from ADEQ before any construction begins. ADEQ's rules, 18 A.A.C. 5, Article 5 have been in place since 1995.
Clarifies that non-compliance starts at the end of the monitoring period for a PWS exceeding the lead or copper action level during a monitoring period.	Under the previous language, it was not clear whether noncompliance began at the end of the calendar year or at the end of the monitoring period. As a result, activities triggered by an action level exceedance could begin three months earlier, but the duration of these activities would not likely be longer. This change does not alter the number of samples taken, but rather the time. Any direct cost should be minor.
If a PWS undertakes lead service line replacement, the PWS can allow an individual lead service line to remain if all samples from that line are less than the action level. The LCR requires that if the lead action level is exceeded, the PWS must reconsider any lines previously decided to not need replacement	EPA estimated the total direct costs for PWSs nationwide would be $101,000 annually. The estimate is based on the number of PWSs previously involved in a lead service line replacement program, the number of PWSs likely to discontinue such a program because of low tested lead levels, and then the fraction of those PWSs likely to subsequently exceed the action level and restart their lead service line replacement program. ADEQ has never required line replacement or a treatment change and is not aware of a delegated county requiring it either.
When sampling at a customer's tap for lead and copper, a CWS must notify those customers of the results. Compliance for NTNCWSs will be determined by their circumstances and may consist of posting a notice on community bulletin boards or Web sites.	EPA estimated that PWSs nationwide subject to LCR would incur total annual costs of $1,248,000 to notify customers.
Broadens the public outreach responsibilities that the PWS has if action levels are exceeded, and includes notifying schools, day care centers	EPA estimated that additional labor and material costs would result in total annual costs of $859,200 for PWSs impacted nationwide.

and health care providers in the area of the health effects of lead and its impact on children.	
A PWS on reduced monitoring that has an action level exceedance will be required to resume standard monitoring schedules for monitoring lead at taps.	A PWS would go from monitoring once every three years to twice a year, meaning an additional five monitoring events. The required number of samples depends on the PWS size; the smallest PWS serving 100 or less people must take five samples per monitoring event; PWSs serving more than 100,000 people must take 100 samples per monitoring event. EPA estimated that out of 72,589 PWSs nationwide, 994 would exceed the 90th percentile; approximately 925 of those would already have been on reduced monitoring. EPA further estimated total costs to PWSs nationwide would be $2,636,000 annually.

The LCR changes should be a lesser impact than changes under RTCR. Compared to PWSs nationwide, Arizona PWSs tend to be newer and the high mineral content in surface and groundwater helps to inhibit leaching from lead or copper lines. In Arizona, 1,326 CWSs and NTNCWSs must monitor for lead and copper; 857 of those systems are on the three year reduced monitoring schedule. No PWSs in Arizona have qualified or have sought to qualify for the nine year reduced monitoring. Since 2010, only 34 PWSs have triggered the 90th percentile level, and only one in 2015.

G. Probable impact on public and private employment:

ADEQ does not anticipate that private or public employment will be directly affected by these rules, though it is possible that some certified operators who work on a contract basis could be impacted by RTCR. The situation would be an operator that had to conduct monthly visits to a small PWS in order to conduct monthly TC sampling. If the PWS qualified for reduced monitoring, less required sampling could mean fewer visits for a certified operator. However, RTCR could result in the opportunity for other types of visits by a certified operator. A certified operator could conduct a more complex evaluation for a PWS in the form of Level 1 or 2 Assessment in response to a TC positive result. ADEQ is not able to quantify the level of impact.

H. Probable impact on small businesses:

In the RTCR rulemaking, EPA considered small entities to be PWSs serving 10,000 or fewer people

based on a provision in the 1996 Amendments to the SDWA for small system flexibility. ADEQ prefers to define a small business as a small water system, which is defined as a water system that serves 3,300 persons or fewer. In Arizona about 1,391 PWS serve 3,300 or less.

The LCR provision of clarifying a minimum of five samples impacts smaller systems serving (101 to 500) that have less than five taps. These systems will have to collect multiple samples on different days from the same tap in order to achieve the total number of required samples, which could result in sampling costs of $350 annually. But very small systems serving 100 or less will only need to take five initial samples, at a cost of $175. Other than this provision, the LCR impacts small PWSs equally as larger PWSs, other than small PWSs tend to have difficulty raising capital for infrastructure projects because of a smaller customer base.

The RTCR has specific provisions that positively impact small PWSs. One change that ADEQ will institute is quarterly routine monitoring for total coliform for all non-CWS serving 1,000 or less and using only ground water. This would impact 723 Arizona PWSs and could result in an annual cost savings of $360 for each PWS (four samples at $45 versus 12 samples at $45). Another change, as described in Section F, is the reduction in required repeat sampling in response to a TC positive. For PWSs serving less than 1,000, the difference in conducting repeat samples (ranging from four to 20 samples to just three repeat samples) results in cost savings of $45 to $765.

The RTCR also allows PWSs that qualify to go on reduced monitoring to either quarterly or annual routine sampling. The PWS must serve less than 1,000 and use ground water only. Based on the criteria to qualify for reduced monitoring, ADEQ estimated how many Arizona systems could qualify based on data in SDWIS. ADEQ eliminated any PWSs that did not currently have a certified operator, had a significant deficiency during the last sanitary survey, had a score under EPA's ETT scoring (Enforcement Targeting Tool), or had a fecal coliform or *E. Coli* positive within last five years.

PWS Type	Number of PWSs	Reduced Monitoring schedule	Number of Potential PWS that Could Qualify	Anticipated Cost Savings if Reduced Monitoring
CWSs	504	Quarterly	About 66 systems could qualify (13%)	Switching to quarterly monitoring saves a system approximately $360 in sampling costs.
NTNCWS	179	Annually	About 64 systems	Switching to annual monitoring saves

			could qualify (36%)	a system approximately $135 per year in sampling costs.
TNCWS	537	Annually	About 372 systems could qualify (69 %)	Switching to annual monitoring saves a system approximately $135 per year in sampling costs.

Seasonal systems tend to be smaller PWSs, and normally sample monthly during operation. Seasonal systems potentially could qualify for quarterly or annual monitoring. Seasonal systems would have an additional requirement to certify completion of approved start-up procedures.

Reduced monitoring under RTCR is a choice, not a requirement. The PWS would need to weigh the cost/benefit of reduced monitoring for itself. ADEQ did not evaluate the costs of the requirement that the PWS be visited by a certified operator each month regardless of whether a TC sample is taken or not. Also, a small PWS facing corrective action requiring infrastructure improvements could have difficulty raising capital for infrastructure projects because of a smaller customer base. However EPA estimated that only 0.04% nationwide of small systems would experience an impact of more than 1% of revenues, and that none of the small systems would experience an impact of 3% or greater of revenue.

A small business can also be a certified operator providing services. Generally, a small PWS is less complex and easier to operate than a larger facility, and may not be required to have an operator onsite. Some small PWSs employ a remote operator whose frequency of site visits could be daily, weekly, or monthly, depending on the needs of the PWS. ADEQ is aware of some operators who are remote operators for 50 or more facilities. Generally, the certified operator conducts TC sampling. Less required sampling could mean fewer visits for a certified operator; however, a certified operator could have to conduct a more complex evaluation for a PWS in the form of Level 1 or 2 Assessment in response to a TC positive result.

1) **The administrative and other costs required for compliance with the proposed rule making.**
   Under the RTCR, all PWSs will incur some initial one-time costs, including:
   - Reading and understanding the rule, and training employees on rule requirements. EPA estimated that PWSs require a total of four hours to read and understand the rule, and a total of eight hours to plan and assign appropriate personnel and resources to carry out rule

activities, resulting in national annualized cost estimates for rule implementation and annual administration of $2.77 million to $4.00 million for 155,000 active PWSs.

- Revising existing sample siting plans to identify sampling locations and collection schedules. EPA estimated that PWSs require two to eight hours to revise their sample siting plan, depending on PWS size, resulting in national annualized cost estimates for revising sample siting plans of $0.59 million to $0.84 million for 155,000 active PWSs.

2) A description of the methods prescribed in section 41-1035 that the agency may use to reduce the impact on small businesses, with reasons for the agency's decision to use or not to use each method.

(i) Establish less costly schedules or less stringent deadlines for compliance, or consolidate or simplify the rule's compliance or reporting requirements in the proposed rule making.

The RTCR reduces some existing sampling requirements for smaller PWSs, and allows monitoring to be reduced to annually for qualifying small PWS that use groundwater only.

(ii) Establish less costly compliance requirements, including establishing performance standards to replace design or operational standards in the proposed rule making.

As a federally-delegated program, ADEQ's laws, rules, and program must comply with EPA requirements.

(iii) Exempt small businesses from any or all requirements of the proposed rule making.

As a federally-delegated program, ADEQ's laws, rules, and program must comply with EPA requirements.

3) The probable cost and benefit to private persons and consumers who are directly affected by the proposed rule making.

Benefits from the RTCR may include avoidance of a full range of health effects from the consumption of fecally contaminated drinking water, including the following: acute and chronic illness, endemic and epidemic disease, waterborne disease outbreaks, and death. It is anticipated that the requirements of the RTCR will help reduce pathways of entry for fecal contamination and/or waterborne pathogens into the distribution system, thereby reducing risk to both the general population as well as to sensitive subpopulations.

The RTCR could indirectly impact customers of a CWS, if a CWS passed the entire cost increase resulting from the rule on to its customers. EPA estimated that the average annual water bill could increase by six cents or less on average per year. Household costs tend to decrease as system size increases, due mainly to the economies of scale for the corrective actions. Customers served by a small CWS that have to take corrective actions as a result of the rule would incur slightly larger

increases in their water bills. EPA estimated that the nine percent of households belonging to CWSs nationwide that perform corrective actions over the 25-year period of analysis experience an increase in annual net household costs of less than $0.70 on average for CWSs serving greater than 4,100 people to approximately $4.50 on average for CWSs serving 4,100 or fewer people on an annual basis. Costs to TNCWSs and NTNCWSs were not calculated since their costs are not typically passed through directly to households.

Under the Lead and Copper Rule, the revisions do not affect the action levels, corrosion control requirements, lead service line replacement requirements, or other provisions that directly determine the degree to which the rule reduces risks from lead and copper. EPA did not quantify the changes in associated health benefits. ADEQ believes the Lead and Copper Rule has indirect benefits as to improving customer awareness, especially of directly notifying customers, which helps customers determine what actions to take to reduce their exposure to lead and copper in drinking water.

I. Probable effect on state revenues:

There are no fees associated with these rules. This rulemaking will have no impact on state revenues.

J. Description of less intrusive or less costly alternative methods of achieving the proposed rulemaking:

As a federally-delegated program, ADEQ's laws, rules, and program must comply with EPA requirements. Some parts of the proposed rules reduce existing sampling requirements for smaller PWSs, and allow for reduced monitoring.

K. Explanation of the limitations of the data available for this economic small business and consumer impact statement.

ADEQ relied on its SDWIS/State for any numbers reported. ADEQ generally does not track information related to a PWS’s costs, such as the cost of public notice, internal training costs, water treatment costs, or infrastructure repairs or improvements. ADEQ relied on EPA’s economic analysis for each rulemaking, which examined data for 155,000 active PWSs nationwide.

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY SAFE DRINKING WATER

ARTICLE 1. PRIMARY DRINKING WATER REGULATIONS

Article 1, consisting of Sections R18-4-101 through R18-4-123, adopted effective April 28, 1995 (Supp. 95-2).

Article 1, consisting of R18-4-101 through R18-4-115, recodified to 18 A.A.C. Title 5, Article 1, R18-5-101 through R18-5-115 (Supp. 95-2).

Section
R18-4-101. Authority and Purpose
R18-4-102. Incorporation by Reference of 40 CFR 141 and 142
R18-4-103. General – 40 CFR 141, Subpart A
R18-4-104. Maximum Contaminant Levels – 40 CFR 141, Subpart B
R18-4-105. Monitoring and Analytical Requirements – 40 CFR 141, Subpart C
R18-4-106. Reporting and Recordkeeping – 40 CFR 141, Subpart D
R18-4-107. Special Regulations, Including Monitoring Regulations and Prohibition on Lead Use – 40 CFR 141, Subpart E
R18-4-108. Maximum Contaminant Level Goals and Maximum Residual Disinfectant Level Goals – 40 CFR 141, Subpart F
R18-4-109. Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels – 40 CFR 141, Subpart G
R18-4-110. Filtration and Disinfection – 40 CFR 141, Subpart H
R18-4-111. Control of Lead and Copper – 40 CFR 141, Subpart I
R18-4-112. Use of Non-Centralized Treatment Devices – 40 CFR 141, Subpart J
R18-4-113. Treatment Techniques – 40 CFR 141, Subpart K
R18-4-114. Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors – 40 CFR 141, Subpart L
R18-4-115. Renumbered
R18-4-116. Renumbered
R18-4-117. Consumer Confidence Reports – 40 CFR 141, Subpart O
R18-4-118. Enhanced Filtration and Disinfection - Systems Serving 10,000 or More People – 40 CFR 141, Subpart P
R18-4-119. Public Notification of Drinking Water Violations – 40 CFR 141, Subpart Q
R18-4-120. Renumbered
R18-4-121. Ground Water Rule – 40 CFR 141, Subpart S
R18-4-122. Enhanced Filtration and Disinfection - Systems Serving Fewer Than 10,000 People – 40 CFR 141, Subpart T
Appendix A. Renumbered
R18-4-123. Initial Distribution System Evaluations – 40 CFR 141, Subpart U
R18-4-124. Stage 2 Disinfection Byproducts Requirements – 40 CFR 141, Subpart V
R18-4-125. Enhanced Treatment For *Cryptosporidium* – 40 CFR 141, Subpart W
Appendix A. Repealed

ARTICLE 2. STATE DRINKING WATER REGULATIONS

Article 2, consisting of Sections R18-4-201 through R18-4-223 adopted effective April 28, 1995 (Supp. 95-2).

Article 2, consisting of Sections R18-4-201 through R18-4-290, repealed effective April 28, 1995 (Supp. 95-2).

Article 2 consisting of Sections R18-4-201 through R18-4-290, adopted effective August 8, 1991 (Supp. 91-3).

Article 2 consisting of Sections R18-4-201 through R18-4-290 and Appendices 1-7, repealed effective August 8, 1991 (Supp. 91-3).

Article 2 consisting of Sections R9-8-210 through R9-8-213, R9-8-220 through R9-8-227, R9-8-230 through R9-8-236, R9-8-250 through R9-8-253, R9-8-260 through R9-8-273, R9-8-290, and Appendices 1 through 6 renumbered as Article 2, Sections R18-4-210 through R18-4-213, R18-4-220 through R18-4-227, R18-4-230 through R18-4-236, R18-4-250 through R18-4-253, R18-4-260 through R18-4-273, R18-4-290, and Appendices 1 through 6 (Supp. 87-3).

Section
R18-4-201. Enforcement
R18-4-202. Certified Operators
R18-4-203. Operation and Maintenance
R18-4-204. Emergency Operation Plans
R18-4-205. Sample Collection, Preservation, and Transportation
R18-4-206. Monitoring and Sampling by the Department and MAP Contractors
R18-4-207. Entry and Inspection of Public Water Systems
R18-4-208. Sanitary Surveys
R18-4-209. Unsafe Supplies
R18-4-210. Total Coliform; Special Events
R18-4-211. Reporting Requirements
R18-4-212. Groundwater Under the Direct Influence of Surface Water
Table 1. Decision Matrix for Determining Groundwater Under the Direct Influence of Surface Water
R18-4-213. Standards for Additives, Materials, and Equipment
R18-4-214. Hauled Water
R18-4-215. Backflow Prevention
R18-4-216. Vending Machines
R18-4-217. Use of Blending to Achieve Compliance with Maximum Contaminant Levels
R18-4-218. Criteria and Procedures for Public Water Systems Using Point-of-Entry or Point-of-Use Treatment Devices
R18-4-219. Exclusions
R18-4-220. Repealed
R18-4-221. Renumbered
R18-4-222. Renumbered
R18-4-223. Use of Bottled Water
R18-4-224. Renumbered
R18-4-225. Renumbered
Table A. Repealed
R18-4-226. Renumbered
R18-4-227. Repealed
R18-4-228. Repealed
R18-4-229. Repealed
R18-4-230. Repealed
R18-4-231. Repealed
R18-4-232. Repealed
R18-4-233. Repealed
R18-4-234. Repealed

R18-4-235. Repealed
R18-4-236. Repealed
R18-4-237. Repealed
R18-4-238. Repealed
R18-4-239. Repealed
R18-4-240. Repealed
R18-4-241. Repealed
R18-4-242. Repealed
R18-4-243. Repealed
R18-4-244. Repealed
R18-4-245. Repealed
R18-4-246. Repealed
R18-4-247. Repealed
R18-4-248. Repealed
R18-4-249. Repealed
R18-4-250. Repealed
R18-4-251. Repealed
R18-4-252. Repealed
R18-4-253. Repealed
R18-4-254. Reserved
R18-4-255. Reserved
R18-4-256. Reserved
R18-4-257. Reserved
R18-4-258. Reserved
R18-4-259. Reserved
R18-4-260. Repealed
R18-4-261. Repealed
R18-4-262. Repealed
R18-4-263. Repealed
R18-4-264. Repealed
R18-4-265. Repealed
R18-4-266. Repealed
R18-4-267. Repealed
R18-4-268. Repealed
R18-4-269. Repealed
R18-4-270. Repealed
R18-4-271. Repealed
R18-4-272. Repealed
R18-4-273. Repealed
R18-4-274. Reserved
R18-4-275. Reserved
R18-4-276. Reserved
R18-4-277. Reserved
R18-4-278. Reserved
R18-4-279. Reserved
R18-4-280. Repealed
R18-4-281. Repealed
R18-4-282. Repealed
R18-4-283. Reserved
R18-4-284. Reserved
R18-4-285. Reserved
R18-4-286. Reserved
R18-4-287. Reserved
R18-4-288. Reserved
R18-4-289. Reserved
R18-4-290. Repealed
Appendix 1. Repealed
Appendix 2. Repealed
Appendix 3. Repealed
Appendix 4. Repealed
Appendix 5. Repealed
Appendix 6. Repealed
Appendix 7. Repealed

ARTICLE 3. MONITORING ASSISTANCE PROGRAM

Article 3, consisting of Sections R18-4-301 thru R18-4-317, adopted effective April 28, 1995 (Supp. 95-2).

Section
R18-4-301 Applicability
R18-4-301.01. Renumbered
Table 1. Renumbered
R18-4-301.02. Repealed
R18-4-302. Contractor Responsibilities
R18-4-303. Public Water System Responsibilities
R18-4-304. Fees for the Monitoring Assistance Program
R18-4-305. Collection and Payment of Fees
R18-4-306. Repealed
R18-4-307. Repealed
R18-4-308. Repealed
R18-4-309. Repealed
R18-4-310. Repealed
R18-4-311. Repealed
R18-4-312. Repealed
R18-4-313. Repealed
R18-4-314. Repealed
R18-4-315. Repealed
R18-4-316. Repealed
R18-4-317. Repealed
Appendix A. Repealed
Appendix B. Repealed

ARTICLE 4. REPEALED

Article 4, consisting of Sections R18-4-401 thru R18-4-405, adopted effective April 28, 1995 (Supp. 95-2).

Section
R18-4-401. Repealed
R18-4-402. Repealed
R18-4-403. Repealed
R18-4-404. Repealed
R18-4-405. Repealed

ARTICLE 5. RECODIFIED

Article 5 recodified to 18 A.A.C. 5, Article 5 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

Article 5, consisting of Sections R18-4-501 through R18-4-509, adopted effective April 28, 1995 (Supp. 95-2).

Appendices A, B, and C adopted effective April 28, 1995 (Supp. 95-2).

Section
R18-4-501. Recodified
R18-4-502. Recodified
R18-4-503. Recodified
R18-4-504. Recodified
R18-4-505. Recodified
R18-4-506. Recodified
R18-4-507. Recodified
R18-4-508. Recodified
R18-4-509. Recodified
Appendix A. Repealed
Appendix B. Repealed
Appendix C. Renumbered

ARTICLE 6. CAPACITY DEVELOPMENT REQUIREMENTS FOR A NEW PUBLIC DRINKING WATER SYSTEM

Article 6, consisting of Sections R18-4-601 through R18-4-607, adopted by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

Article 6, consisting of Sections R18-4-601 through R18-4-

607, adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3).

Section
R18-4-601. Applicability
R18-4-602. Elementary Business Plan
R18-4-603. Technical Capacity
R18-4-604. Managerial Capacity
R18-4-605. Financial Capacity
R18-4-606. Review, Approval, Denial Process
R18-4-607. Appeals
Appendix A. Capacity Development Review Checklist for CWS and NTNCWS
Appendix B. General Statement of Responsibility by Owner
Appendix C. Financial Capacity for CWS and NTNCWS Worksheet 1
Appendix D. CWS and NTNCWS Financial Viability Test

ARTICLE 7. REPEALED

Article 7, consisting of Sections R18-4-701 through R18-4-710 and Appendices A and B, adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2).

Section
R18-4-701. Repealed
R18-4-702. Repealed
R18-4-703. Repealed
R18-4-704. Repealed
R18-4-705. Repealed
R18-4-706. Repealed
R18-4-707. Repealed
R18-4-708. Repealed
R18-4-709. Repealed
R18-4-710. Repealed
Appendix A. Repealed
Appendix B. Repealed
Appendix C. Repealed

ARTICLE 8. TECHNICAL ASSISTANCE

Article 8, consisting of Sections R18-4-801 through R18-4-804, made by final rulemaking at 8 A.A.R. 262, effective December 27, 2001 (Supp. 01-4).

Section
R18-4-801. Repealed
R18-4-802. Technical Assistance Plan
R18-4-803. Master Priority List
R18-4-804. Technical Assistance Awards

ARTICLE 1. PRIMARY DRINKING WATER REGULATIONS

R18-4-101. Authority and Purpose

A. This Chapter is created under the authority of A.R.S. Title 49, Chapter 2, Article 9, and the federal Safe Drinking Water Act, 42 U.S.C. 300f through 300j-26.

B. The purposes of this Chapter include the following:
1. To protect the public health and welfare by ensuring that all potable water distributed or sold to the public by public water systems is free from unwholesome, poisonous, deleterious, or other foreign substances, and filth or disease-causing substances or organisms; and
2. To enable the state to maintain primary enforcement responsibility of the Safe Drinking Water Act, including the requirements of 40 CFR 141 and 142.

Historical Note

Former Section R9-20-504 repealed, new Section R9-20-504 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-504 amended, renumbered as Section R9-20-501, then renumbered as Section R18-4-101 effective October 23, 1987 (Supp. 87-4). R18-4-101 recodified to R18-5-101 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-102. Incorporation by Reference of 40 CFR 141 and 142

A. Unless otherwise specified in this Chapter, all references to regulations in 40 CFR 141 and 142 in this Chapter refer to the July 1, 2007, version of the regulations. Copies of the incorporated material are available for review at the Arizona Department of Environmental Quality, 1110 W. Washington St., Phoenix, AZ, 85007, and are available from:
1. Code of Federal Regulations: U.S. Government Printing Office, online bookstore, http://bookstore.gpo.gov/; 866-512-1800; orders@gpo.gov;
2. Federal Register: http://www.gpoaccess.gov/fr/index.html.

B. A reference to a federal statute or regulation in a federal statute or regulation incorporated by reference in this Chapter shall refer to and incorporate by reference the referenced statute or regulation as of the date specified in subsection (A), unless the referenced statute or regulation is incorporated by reference elsewhere in this Chapter in a modified form, in which case the reference shall be to the statute or regulation as incorporated in this Chapter.

C. Documents incorporated by reference in a federal statute or regulation incorporated by reference in this Chapter are also incorporated by reference in this Chapter, as of the date specified in the federal statute or regulation.

D. A federal rule incorporated by reference in this Chapter shall include all "Effective Date Notes" associated with the federal rule.

E. The term "State" or "primacy agency" in the text of a federal statute or regulation incorporated by reference in this Chapter shall mean the Arizona Department of Environmental Quality unless otherwise noted.

Historical Note

Adopted as Section R9-20-502 and renumbered as Section R18-4-102 effective October 23, 1987 (Supp. 87-4). R18-4-102 recodified to R18-5-102 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-103. General – 40 CFR 141, Subpart A

A. 40 CFR 141, Subpart A (40 CFR 141.1 through 141.6), is incorporated by reference as of the date specified in R18-4-102, except for the changes listed in this Section; this incorporation does not include any later amendments or editions.

B. The definition of "State" in 40 CFR 141.2 is not incorporated by reference. In addition to the terms defined in A.R.S. §§ 49-201 and 49-351, and 40 CFR 141.2, in this Chapter, unless otherwise specified, the terms listed below have the following meanings.

"Air-gap separation" means a physical separation between the discharge end of a supply pipe and the top rim of its receiving vessel of at least 1 inch or twice the diameter of the supply pipe, whichever is greater.

"ANSI/NSF Standard 60" means American National Standards Institute/NSF International Standard 60 - 2000a, Drinking Water Treatment Chemicals - Health Effects, November 2000, incorporated by reference and on file with the Department. This material is available from NSF International, 789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, USA; (734) 769-8010; http://www.nsf.org. This incorporation by reference includes no future editions or amendments.

"ANSI/NSF Standard 61" means American National Standards Institute/NSF International Standard 61 - 2000a, Drinking Water System Components - Health Effects, November 2000, incorporated by reference and on file with the Department. This material is available from NSF International, 789 N. Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, USA; (734) 769-8010; http://www.nsf.org. This incorporation by reference includes no future editions or amendments.

"Backflow" means a reverse flow condition that causes water or mixtures of water and other liquids, gases, or substances to flow back into the distribution system. Backflow can be created by a difference in water pressure (backpressure), a vacuum or partial vacuum (backsiphonage), or a combination of both.

"Backflow-prevention assembly" means a mechanical device used to prevent backflow.

"Capacity" means the overall capability of a water system to consistently produce and deliver water meeting all national and state primary drinking water regulations in effect when new or modified operations begin. Capacity includes the technical, managerial, and financial capacities of the water system to plan for, achieve, and maintain compliance with applicable national and state primary drinking water regulations.

"Capacity development" means improving public water system finances, management, infrastructure, and operations, so that the public water system can provide safe drinking water consistently, reliably, and cost-effectively.

"Capacity development report" means an annual report adopted by the Department that describes progress made in improving technical, managerial, or financial capacity of public water systems in Arizona.

"Cross connection" means a physical connection between a public water system and any source of water or other substance that may lead to contamination of the water provided by the public water system through backflow.

"Distribution system" means a pipeline, appurtenance, device, and facility of a public water system that conducts water from a source or water treatment plant to persons served by the system.

"Department" means the Arizona Department of Environmental Quality.

"Double check valve assembly" means a backflow-prevention assembly that contains two independently acting check valves with tightly closing, resilient-seated shut-off valves on each end of the assembly and properly located, resilient-seated test cocks.

"Elementary business plan" means a document containing all of the items necessary for a complete review of the technical, managerial, and financial capacity of a new public water system under Article 6 of this Chapter.

"Entry point to the distribution system" means a compliance sampling point anywhere on a finished water line that is representative of a water source and located after the well, surface water intake, treatment plant, storage tank, or pressure tank, whichever is last in the process flow, but prior to where the water is discharged into the distribution system and prior to the first service connection.

"EPA" means the United States Environmental Protection Agency.

"Exclusion" means a waiver granted by the Department under R18-4-219 from a requirement of this Chapter that is not a requirement contained in a federal drinking water law.

"Exemption" means a form of temporary relief from a maximum contaminant level or treatment technique granted by the Department to a public water system, pending installation and operation of treatment facilities, acquisition of an alternate source, or completion of improvements in treatment processes to bring the system into compliance with drinking water regulations.

"Financial capacity" means the ability of a public water system to acquire and manage sufficient financial resources for the system to achieve and maintain compliance with the federal Safe Drinking Water Act.

"Groundwater system" means a public water system that is supplied solely by groundwater that is not under the direct influence of surface water.

"Lead-free" means that the pipe, solder, or flux used in the installation or repair of a public water system, or in a residential or non-residential facility that provides water for human consumption and is connected to the public water system, meets the following criteria:

No solders or flux contain more than 0.2% lead;

No pipes or pipe fittings contain more than 8.0% lead; and

When used with respect to plumbing fittings and fixtures intended by the manufacturer to dispense water for human ingestion, "lead-free" means fittings and fixtures that are in compliance with ANSI/NSF Standard 61, Section 9.

"Major stockholder" means a person who has 20% or more ownership interest in a public water system.

"Master priority list" means a list created by the Department that ranks public water systems according to the criteria in R18-4-803.

"Monitoring assistance program" means the program established by A.R.S. § 49-360 to assist public water systems with mandatory monitoring for contaminants and administered by the Department under 18 A.A.C. 4.

"Operational assistance" means professional or financial assistance provided to a public water system to improve the technical, managerial, or financial operations of the public water system.

"Reduced pressure principle backflow-prevention assembly" means a backflow-prevention assembly that contains two independently acting check valves; a hydraulically operating, mechanically independent pressure differential relief valve located between the two check valves; tightly closing, resilient seated shut-off valves on each end of the check valve assembly; and properly located resilient seated test cocks.

"Service connection" means a location at the meter or, in the absence of a meter, at the curbstop or building inlet.

"Service line" means the water line that runs from the corporation stop at a water main to the building inlet, including any pigtail, gooseneck, or fitting.

"State" means the Arizona Department of Environmental Quality, except during any time period during which the Department does not have primary enforcement responsibility pursuant to Section 1413 of the Act, the term "State" means the Regional Administrator of EPA Region 9.

"System evaluation assistance" means assistance provided to assess the status of the public water system's technical, managerial, and financial components, with emphasis on infrastructure status.

"Technical assistance" means operational assistance, system evaluation assistance, or both.

"Treatment" means a process that changes the quality of water by physical, chemical, or biological means.

"Treatment technique" means a treatment procedure promulgated by EPA in lieu of an MCL.

"Variance" means relief from a maximum contaminant level or treatment technique granted by the Department to a public water system when characteristics of a system's raw water source preclude the system from complying with maximum contaminant levels prescribed by drinking water regulations, despite application of best technology, treatment techniques, or other means available to the system.

"Water main" means a pipe that is exterior to buildings and is used to distribute drinking water to more than one property.

"Water Infrastructure Finance Authority" means the entity created under A.R.S. § 49-1201 et seq. to provide financial assistance to political subdivisions, Indian tribes, and eligible drinking water facilities for constructing, acquiring, or improving wastewater treatment facilities, drinking water facilities, nonpoint source projects, and other related water quality facilities and projects.

"Water treatment plant" means a process, device, or structure used to improve the physical, chemical, or biological quality of the water in a public water system. A booster chlorination facility that is designed to maintain an effective disinfectant residual in water in the distribution system is not a water treatment plant.

C. 40 CFR 141.4, entitled "variances and exemptions," is incorporated by reference subject to the following modifications:

1. The phrase "entity with primary enforcement responsibility" is changed to "Department."
2. When reviewing and acting on requests for variances and exemptions, the Department shall act in accordance with the procedures at 42 U.S.C. 300g-4 and 300g-5 (2004) of the Act (Public Health Service Act §§ 1415 and 1416), including:
   a. The Department shall require a public water system granted a variance under subsection (C) to comply with the requirements in a compliance schedule as expeditiously as practicable.
   b. The Department shall promptly notify EPA of all variances and exemptions granted by the Department in the manner specified in the Act.
   c. The Department shall enforce a schedule or other requirement on which a variance or exemption is conditioned under 42 U.S.C. 300g-3 and A.R.S. § 49-354, as if the schedule or other requirement is part of a national primary drinking water regulation incorporated by reference in this Chapter.
   d. "Treatment technique requirement," for the purpose of subsection (C), means a requirement in a national primary drinking water regulation which specifies for a contaminant, in accordance with 42 U.S.C. 300f(1)(C)(ii), each treatment technique known to lead to a reduction in the level of the contaminant sufficient to satisfy the requirements of 42 U.S.C. 300g-1(b).
   e. If the Department grants a variance or exemption, the Department shall prescribe:
      i. A compliance schedule that includes increments of progress or measures to develop an alternative source of water supply; and
      ii. An implementation schedule that includes such control measures as the Department deems necessary for each contaminant.

D. 40 CFR 142, 142.2, 142.20, and Subparts E, F, G, and K, are incorporated by reference as of the date specified in R18-4-102, with the following changes; this incorporation does not include any later amendments or editions. The following substitutions are to be applied in the listed order.

1. 40 CFR 142.46, 142.302, 142.313 are not incorporated by reference.
2. 40 CFR 142.20(a), (b). The phrase "States with primary enforcement responsibility" is changed to "the Department"; the second sentences in 142.20(a) and 142.20(b) are deleted.
3. 40 CFR 142.60(b), 142.61(b). The phrase "Administrator in a state that does not have primary enforcement responsibility or a state with primary enforcement responsibility (primacy state) that issues variances" is changed to "Department."
4. 40 CFR 142.44(b)(2), 142.54(b)(2). The phrase "the agency of the State in which the system is located which is responsible for the State's water supply program[,] and to" is deleted; "Administrator's" is changed to "Department's."
5. 40 CFR 142.40(a), (b); 142.41; 142.50(a); 142.51. The phrase "a State that does not have primary enforcement responsibility" is changed to "Arizona".
6. 40 CFR 142.60(b), (c), (d); 142.61(b), (c). The phrase "Administrator or ['primacy' or 'primary'] state that issues variances" is changed to "Department."
7. 40 CFR 142.60(b), (d); 142.61(b), (d); 142.62(e), (g)(1); 142.65(a)(4). The phrase "Administrator or [the] primacy

state" is changed to "Department"; the phrase "Administrator's or primacy state's" is changed to "Department's."

8. In 40 CFR 142, Subpart K:
   a. The phrases "['a' or 'the'] State or [the] Administrator," "Administrator or State," "the public water system, State and the Administrator," and "a State exercising primary enforcement responsibility for public water systems (or the Administrator for other systems)" are changed to "the Department."
   b. 40 CFR 142.301. The last sentence is deleted.
   c. 40 CFR 142.303(b). The phrase "a State exercising primary enforcement responsibility for public water systems" is changed to "the Department."
   d. 40 CFR 142.306(b)(2). The phrase "(or by the Administrator in States which do not have primary enforcement responsibility)" is deleted.
   e. 40 CFR 142.308(a), 142.309(c). The phrase "the State, Administrator, or [the] public water system as directed by the State or Administrator" is changed to "the Department or the public water system, as determined by the Department."
   f. 40 CFR 142.308(b). The text of this subsection is replaced by the following: "At the time of proposal, the Department must publish a notice in the Arizona Administrative Register or a newspaper or newspapers of wide circulation in the affected region of the State. This notice shall include the information listed in paragraph (c) of this section."
   g. 40 CFR 142.308(c)(7). The phrase "the primacy agency" is changed to "the Department."
9. In all parts of 40 CFR 142 incorporated by reference other than Subpart K, the term "Administrator" is changed to "Department"; the pronoun "he" is changed to "the Department"; and the pronoun "his" is changed to "the Department's."
10. In all parts of 40 CFR 142 incorporated by reference, the term "a state" or "the state" is changed to "the Department"; the term "the State's" is changed to "the Department's."
11. 40 CFR 142.62(h)(3). The term "State-approved" is changed to "Department-approved."
12. 40 CFR 142.44(b), 142.54(b). The text of these subsections is replaced by the following: "Public notice of an opportunity for hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, and shall meet the notice requirements of A.A.C. R18-1-401."
13. 40 CFR 142.44(d), 142.54(d). The third, fourth, and fifth sentences of these subsections are deleted.
14. 40 CFR 142.44(e), 142.54(e). The text of these subsections is replaced by the following: "A hearing convened pursuant to paragraph (d) of this section shall be conducted according to the procedural requirements of A.A.C. R18-1-402."

E. 40 CFR 141.5 is not incorporated by reference.

Historical Note

Former Section R9-20-505 repealed, new Section R9-20-505 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-505 amended, renumbered as Section R9-20-503, then renumbered as Section R18-4-103 effective October 23, 1987 (Supp. 87-4). R18-4-103 recodified to R18-5-103 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-103 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-104. Maximum Contaminant Levels – 40 CFR 141, Subpart B

40 CFR 141, Subpart B (40 CFR 141.11 through 141.13), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-506 repealed, new Section R9-20-506 adopted effective November 1, 1979 (Supp. 79-6). Amended effective March 19, 1980 (Supp. 80-2). Former Section R9-20-506 amended, renumbered as Section R9-20-504, then renumbered as Section R18-4-104 effective October 23, 1987 (Supp. 87-4). R18-4-104 recodified to R18-5-104 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Amended under R1-1-109(B) to correct a manifest clerical error; subsection R18-4-104(J)(3) moved to its proper place as subsection R18-4-104(K)(3); compare at 8 A.A.R. 3086, July 26, 2002 (Supp. 03-1). Section R18-4-104 renumbered to R18-4-211; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-105. Monitoring and Analytical Requirements – 40 CFR 141, Subpart C

A. 40 CFR 141, Subpart C (40 CFR 141.21 through 141.29), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.21, coliform sampling, is modified as follows:
   1. 40 CFR 141.21(a)(3)(i): the phrase "each calendar quarter" is replaced with "each calendar month."
   2. 40 CFR 141.21(a)(3)(i) and (ii): the phrase "less than once/year" is replaced with "less than one sample per quarter."
   3. 40 CFR 141.21(c)(2), 141.21(d) and 141.21(f) are not incorporated by reference.

C. 40 CFR 141.22: the last sentence of 141.22(a) is replaced by the following: "Turbidity measurements shall be made using analytical methods approved by EPA and the Arizona Department of Health Services."

D. 40 CFR 141.23(k) is not incorporated by reference.

E. 40 CFR 141.24(f)(17), 141.24(f)(20), and 141.24(h)(19) are not incorporated by reference.

F. 40 CFR 141.25: the following text replaces the text of 40 CFR 141.25(a) and (b): "Analysis for the following contaminants shall be conducted to determine compliance with 40 CFR 141.66 (radioactivity) using analytical methods approved by EPA and the Arizona Department of Health Services:
   1. Naturally occurring contaminants: gross alpha and beta, gross alpha, radium 226, radium 228, and uranium.
   2. Man-made contaminants: radioactive cesium, radioactive iodine, radioactive strontium 89, 90, tritium, and gamma emitters."

G. 40 CFR 141.27, alternate analytical techniques, is not incorporated by reference; the following text is substituted in its place: "The use of an alternate analytical technique approved by EPA and the Arizona Department of Health Services shall not

decrease the frequency of monitoring required by this Chapter."

H. 40 CFR 141.28:
1. In 40 CFR 141.28(a), the term "State" is changed to "Arizona Department of Health Services."
2. In 40 CFR 141.28(b), the term "State" is changed to "Arizona Department of Health Services or Arizona Department of Environmental Quality."
3. A new subsection (c) is added: "A laboratory that performs drinking water analysis in Arizona shall be certified by EPA or the Arizona Department of Health Services."

Historical Note

Former Section R9-20-507 repealed, new Section R9-20-507 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-507 amended, renumbered as Section R9-20-505, then renumbered as Section R18-4-105 effective October 23, 1987 (Supp. 87-4). R18-4-105 recodified to R18-5-105 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section repealed by final rulemaking at 8 A.A.R. 3046, effective May 6, 2002 (Supp. 02-3). New Section R18-4-105 renumbered from R18-4-105.01 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3). Subsection citation in part 4 of Table 2 corrected (Supp. 04-1). Section R18-4-105 and Tables 1 through 4 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-105.01. Renumbered

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective May 6, 2002 (Supp. 02-3). Section renumbered to R18-4-105 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3).

R18-4-106. Reporting and Recordkeeping – 40 CFR 141, Subpart D

A. 40 CFR 141, Subpart D (40 CFR 141.31 through 141.35), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions. The requirements in the following subsections are in addition to the requirements of 40 CFR 141, Subpart D.

B. Department reporting forms. A public water system shall report to the Department the results of all analyses completed under this Chapter on Department-approved forms.

C. Direct reporting. A public water system may contract with a laboratory or another agent to report monitoring results to the Department, but the public water system remains legally responsible for compliance with reporting requirements.

Historical Note

Adopted effective March 19, 1980 (Supp. 80-2). Former Section R9-20-508 amended, renumbered as Section R9-20-506, then renumbered as Section R18-4-106 effective October 23, 1987 (Supp. 87-4). Amended subsection (F) effective November 30, 1988 (Supp. 88-4). R18-4-106 recodified to R18-5-106 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-106 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-107. Special Regulations, Including Monitoring Regulations and Prohibition on Lead Use – 40 CFR 141, Subpart E

40 CFR 141, Subpart E (40 CFR 141.40 through 141.43), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-509 repealed, new Section R9-20-509 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-509 amended, renumbered as Section R9-20-507, then renumbered as Section R18-4-107 effective October 23, 1987 (Supp. 87-4). Amended subsection (B) effective November 30, 1988 (Supp. 88-4). R18-4-107 recodified to R18-5-107 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-107 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-108. Maximum Contaminant Level Goals and Maximum Residual Disinfectant Level Goals – 40 CFR 141, Subpart F

40 CFR 141, Subpart F (40 CFR 141.50 through 141.55), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-510 repealed, new Section R9-20-510 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-510 amended, renumbered as Section R9-20-508, then renumbered as Section R18-4-108 effective October 23, 1987 (Supp. 87-4). Amended subsection (D) effective November 30, 1988 (Supp. 88-4). R18-4-108 recodified to R18-5-108 (Supp. 95-2). New Section R18-4-108 renumbered from R18-4-109 and amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-108 renumbered to R18-4-205; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-109. Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels – 40 CFR 141, Subpart G

40 CFR 141, Subpart G (40 CFR 141.60 through 141.66), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-511 repealed, new Section R9-20-511 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-511 amended, renumbered as Section R9-20-509, then renumbered as Section R18-4-109 effective October 23, 1987 (Supp. 87-4). R18-4-109 recodified to R18-5-109 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Former Section R18-4-109 renumbered to R18-4-108; new Section R18-4-109 made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-109 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-110. Filtration and Disinfection – 40 CFR 141, Subpart H

A. 40 CFR 141, Subpart H (40 CFR 141.70 through 141.76), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this

incorporation does not include any later amendments or editions.

B. The text of 40 CFR 141.74(a) is replaced by the following: "*Analytical requirements*. In order to demonstrate compliance with the requirements of this Part, public water systems shall use analytical methods approved by EPA and the Arizona Department of Health Services for monitoring under this Part."

Historical Note

Former Section R9-20-512 repealed, new Section R9-20-512 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-512 amended, renumbered as Section R9-20-510, then renumbered as Section R18-4-110 effective October 23, 1987 (Supp. 87-4). Amended subsection (B) effective November 30, 1988 (Supp. 88-4). R18-4-110 recodified to R18-5-110 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-110 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-111. Control of Lead and Copper – 40 CFR 141, Subpart I

A. 40 CFR 141, Subpart I (40 CFR 141.80 through 141.91), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. The first sentence of 40 CFR 141.89(a) is replaced by the following: "Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using analytical methods approved by EPA and the Arizona Department of Health Services. Analyses under this section for lead and copper shall be conducted by laboratories that have been certified by EPA or the Arizona Department of Health Services."

C. The text of 40 CFR 141.89(a)(1) is not incorporated by reference.

Historical Note

Adopted as Section R9-20-511 and renumbered as Section R18-4-111 effective October 23, 1987 (Supp. 87-4). R18-4-111 recodified to R18-5-111 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-111 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-112. Use of Non-Centralized Treatment Devices – 40 CFR 141, Subpart J

40 CFR 141.101 is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Former Section R9-20-517 repealed, new Section R9-20-517 adopted effective November 1, 1979 (Supp. 79-6). Amended effective March 19, 1980 (Supp. 80-2). Former Section R9-20-517 amended, renumbered as Section R9-20-512, then renumbered as Section R18-4-112 effective October 23, 1987 (Supp. 87-4). R18-4-112 recodified to R18-5-112 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-112 renumbered to R18-4-219; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-113. Treatment Techniques – 40 CFR 141, Subpart K

40 CFR 141, Subpart K (40 CFR 141.110 through 141.111), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note

Adopted as Section R9-20-513 and renumbered as Section R18-4-113 effective October 23, 1987 (Supp. 87-4). Amended subsections (A) and (C) effective November 30, 1988 (Supp. 88-4). R18-4-113 recodified to R18-5-113 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-113 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-114. Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors – 40 CFR 141, Subpart L

A. 40 CFR 141, Subpart L (40 CFR 141.130 through 141.135), is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions.

B. 40 CFR 141.131 is not incorporated by reference.

C. In order to demonstrate compliance with the requirements of this Chapter:

1. Public water systems shall use analytical methods approved by EPA and the Arizona Department of Health Services for monitoring under this Chapter; and
2. Analyses of drinking water samples shall be conducted by laboratories that have been certified by EPA or the Arizona Department of Health Services.

D. A party approved by the Department shall measure daily chlorite samples at the entrance to the distribution system.

E. A public water system may measure residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide by using N,N-diethyl-p-phenylenediamine (DPD) colorimetric test kits. A party approved by the Department shall measure residual disinfectant concentration.

Historical Note

Former Section R9-20-519 repealed, new Section R9-20-519 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-519 amended, renumbered as Section R9-20-514, then renumbered as Section R18-4-114 effective October 23, 1987 (Supp. 87-4). R18-4-114 recodified to R18-5-114 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-114 renumbered to R18-4-202; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-115. Renumbered

Historical Note

Former Section R9-20-520 repealed, new Section R9-20-520 adopted effective November 1, 1979 (Supp. 79-6). Former Section R9-20-520 amended, renumbered as Section R9-20-515, then renumbered as Section R18-4-115 effective October 23, 1987 (Supp. 87-4). R18-4-115 recodified to R18-5-115 (Supp. 95-2). New Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-115 renumbered to R18-4-215 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-116. Renumbered

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-116 renumbered to R18-4-204 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-117. Consumer Confidence Reports – 40 CFR 141, Subpart O
40 CFR 141, Subpart O (40 CFR 141.151 through 141.155 and Appendix A), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-117 renumbered to R18-4-209; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-118. Enhanced Filtration and Disinfection - Systems Serving 10,000 or More People – 40 CFR 141, Subpart P
40 CFR 141, Subpart P (40 CFR 141.170 through 141.175), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-118 renumbered to R18-4-208; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-119. Public Notification of Drinking Water Violations – 40 CFR 141, Subpart Q
40 CFR 141, Subpart Q (40 CFR 141.201 through 141.211 and Appendices A, B, and C), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Former Section R18-4-215 renumbered R18-4-119 pursuant to R1-1-404 effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-119 renumbered to R18-4-213; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-120. Renumbered

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Section R18-4-120 renumbered to R18-4-206 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-121. Ground Water Rule – 40 CFR 141, Subpart S
40 CFR 141, Subpart S (40 CFR 141.400 through 141.405), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-121 renumbered to R18-4-201; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-122. Enhanced Filtration and Disinfection – Systems Serving Fewer Than 10,000 People – 40 CFR 141, Subpart T
40 CFR 141, Subpart T (40 CFR 141.500 through 141.571), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-122 renumbered to R18-4-207; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Appendix A. Renumbered

Historical Note
New Appendix made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix A repealed; new Appendix A made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Appendix A renumbered to a position after R18-4-125 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3).

R18-4-123. Initial Distribution System Evaluations – 40 CFR 141, Subpart U
40 CFR 141, Subpart U (40 CFR 141.600 through 141.605), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-123 renumbered to R18-4-216; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-124. Stage 2 Disinfection Byproducts Requirements – 40 CFR 141, Subpart V
40 CFR 141, Subpart V (40 CFR 141.620 through 141.629), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective February 9, 1996 (Supp. 96-1). Section R18-4-124 renumbered to R18-4-203; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-125. Enhanced Treatment For *Cryptosporidium* – 40 CFR 141, Subpart W
40 CFR 141, Subpart W (40 CFR 141.700 through 141.723), is incorporated by reference as of the date specified in R18-4-102; this incorporation does not include any later amendments or editions.

Historical Note
Adopted effective February 9, 1996 (Supp. 96-1). Section R18-4-125 renumbered to R18-4-214; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Appendix A. Repealed

Historical Note
Appendix A renumbered from a position after R18-4-122 to a position after R18-4-125 at 8 A.A.R. 2756, effective June 6, 2002 (Supp. 02-3). Subsection citation in Appendix A corrected (Supp. 04-1). Appendix A repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

ARTICLE 2. STATE DRINKING WATER REGULATIONS

R18-4-201. Enforcement

A. A water supplier who constructs, operates, or maintains a public water system contrary to the provisions of this Chapter or fails to maintain the quality of water within the public water system as required by this Chapter is subject to the actions provided in A.R.S. §§ 49-142 and 49-354.

B. If the Department determines that a public water system is not in compliance with any of the provisions of this Chapter, the Department may issue an order to the water supplier that requires the public water system to make no further service connections or that limits the number of service connections until the Department determines that the public water system achieves compliance.

C. The Department may determine compliance or initiate enforcement action based upon analytical results and other information compiled by the Department or other federal, state, or local agencies.

D. The Department shall round compliance data to the same number of significant figures as the MCL in question to determine compliance with the MCL.

Historical Note

Former Section R9-8-212 repealed, new Section R9-8-212 adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended effective November 2, 1982 (Supp. 82-6). Amended by renumbering subsections (P) thru (W) as (Q) thru (X) and adding a new subsection (P) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-212 renumbered without change as Section R18-4-212 (Supp. 87-3). Former Section R18-4-212 amended and renumbered as Section R18-4-201 effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-201 repealed; new Section renumbered from R18-4-121 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-202. Certified Operators

A water supplier of a public water system shall ensure that:

1. The water system is operated in accordance with 18 A.A.C. 5, Article 1.
2. The water system is operated by an operator who is properly certified pursuant to 18 A.A.C. 5, Article 1, to operate each water treatment plant in the system and the distribution system.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-202 repealed; new Section renumbered from R18-4-114 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-203. Operation and Maintenance

A water supplier shall maintain and keep in proper operating condition all facilities used in production, treatment, and distribution of the water supply so as to comply with the requirements of this Chapter and 18 A.A.C. 5.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-203 renumbered to R18-4-210; new Section renumbered from R18-4-124 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-204. Emergency Operation Plans

A. The water supplier for a community water system shall develop and keep an emergency operations plan in an easily accessible location. At a minimum, the emergency operations plan shall detail the steps that the community water system will take to assure continuation of service in the following emergency situations:

1. Loss of a source;
2. Loss of water supply due to major component failure;
3. Damage to power supply equipment or loss of power;
4. Contamination of water in the distribution system from backflow;
5. Collapse of a reservoir, reservoir roof, or pumphouse structure;
6. A break in a transmission or distribution line; and
7. Chemical or microbiological contamination of the water supply.

B. The emergency operations plan required by subsection (A) shall address all of the following:

1. Provision of alternate sources of water during the emergency;
2. Notice procedures for regulatory agencies, news media, and users;
3. Disinfection and testing of the distribution system once service is restored;
4. Identification of critical system components that shall remain in service or be returned to service quickly;
5. Critical spare parts inventory; and
6. Staff training in emergency response procedures.

C. In the event that an emergency situation that is listed in subsection (A) occurs, the Emergency Operation Plan shall be implemented by the community water system.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-204 repealed; new Section renumbered from R18-4-116 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-205. Sample Collection, Preservation, and Transportation

A public water system shall collect each sample using the sample preservation, container, and maximum holding time procedure prescribed by the Arizona Department of Health Services in 9 A.A.C. 14, Article 6, and approved by EPA for the analytical method used.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-205 repealed; new Section renumbered from R18-4-108 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-206. Monitoring and Sampling by the Department and MAP Contractors

A. The Department may take samples from a public water system. If the Department takes a sample at a public water system, the Department shall forward a copy of the analytical results to the water supplier.

B. If a public water system fails to monitor, the Department may monitor to determine compliance with MCLs. A public water system shall not use Department monitoring to satisfy monitoring requirements prescribed by this Chapter. This subsection does not apply to monitoring under the monitoring assistance program.

C. A contractor shall take compliance samples for the categories of contaminants listed in A.R.S. § 49-360(A) for a public water system that participates in the monitoring assistance program.

D. The sampling location for chemical contaminants must be the entry point to the distribution system or the compliance monitoring point specified by the Department, unless otherwise specified in this Chapter. An entry point to a distribution system is the point at which water is discharged into the distribution system from a well, storage tank, pressure tank, or water treatment plant.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Section R18-4-206 repealed; new Section renumbered from R18-4-120 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-207. Entry and Inspection of Public Water Systems

A. A Department inspection shall comply with A.R.S. § 41-1009.

B. 40 CFR 142.34(a) is incorporated by reference as of the date specified in R18-4-102, subject to the modifications specified in this Section; this incorporation does not include any later amendments or editions. The phrase "Administrator" is changed to "Department."

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-207 repealed; new Section renumbered from R18-4-122 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-208. Sanitary Surveys

A. Each public water system shall undergo sanitary surveys in accordance with a schedule established by the Department, or when the Department determines that a sanitary survey is necessary to assure compliance with this Chapter.

B. A sanitary survey shall be performed for a public water system at least once every five years; however, a non-community water system using only protected and disinfected ground water shall have a sanitary survey performed at least every 10 years.

C. When establishing a sanitary survey schedule or determining that a sanitary survey is required prior to the next scheduled sanitary survey, the Department shall consider:

1. The quality and quantity of the source water; and
2. Whether the system is properly designed, maintained and operated.

D. Proper operation and maintenance means operating and maintaining the public water system in compliance with this Chapter; 18 A.A.C. 5, Article 5; and in conformance with the applicable portions of Engineering Bulletin No. 10, "Guidelines for the Construction of Water Systems," incorporated by reference in A.A.C. R18-5-502.

E. The Department shall review the results of a sanitary survey to determine whether the existing monitoring frequency is adequate, and whether any additional measures are required in order to ensure that the system will remain in compliance with this Chapter.

F. In conducting a sanitary survey of a groundwater system, information on sources of contamination within a delineated wellhead protection area shall be considered by the Department instead of collecting new information, if the information was collected since the last time the system was subject to a sanitary survey.

G. A water supplier shall make the changes to the design, operation, and maintenance of the public water system specified by the Department in order to bring the system into compliance with the requirements of this Chapter, and shall make the changes within the time limits set by the Department.

H. A sanitary survey of a public water system shall be made by a representative of the Department, a professional engineer or sanitarian who is registered in Arizona, a certified water system operator, or other person approved by the Department.

I. A sanitary survey shall comply with A.R.S. § 41-1009 when conducted by the Department.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-208 repealed; new Section renumbered from R18-4-118 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-209. Unsafe Supplies

The Department may order a public water system to disconnect a source to protect the public health from an acute health risk that is attributable to the source. An acute health risk is posed when one of the following occurs:

1. A violation of a MCL for total coliform and fecal coliform or *E. coli* are present that is attributable to the source,
2. A violation of the MCL for nitrate or nitrite that is attributable to the source, or
3. An occurrence of a waterborne disease outbreak that is attributable to the source.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-209 repealed; new Section renumbered from R18-4-117 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-210. Total Coliform; Special Events

A water system that does not meet the definition of a public water system, but serves a large number of persons for a short duration of time, such as a special event, shall comply with the MCL for total coliform if the total number of user-days exceeds 600. A user-day is calculated by multiplying the number of days the event will run by the average number of persons expected to be served each day. The water system shall submit a minimum of two samples to the Department at least seven days before the beginning of the special event. The water system shall submit a minimum of one additional sample to the Department for each day of the special event.

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended subsection (C) and added subsection (D) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-210 renumbered without change as Section R18-4-210 (Supp. 87-3). Repealed effective June 30, 1989 (Supp. 89-2). New Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section repealed by final rulemaking at 8 A.A.R. 3046, effective May 6, 2002 (Supp. 02-3). New Section R18-4-210 renumbered from R18-4-203 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008

(Supp. 08-3).

R18-4-211. Reporting Requirements

A. Cross connection incidents. A public water system shall submit a written cross connection incident report to the Department and the local county health department within five days of the occurrence of a cross connection problem that results in contamination of water provided by the public water system. The report shall address all of the following:
1. Date and time of discovery of the cross connection incident,
2. Nature of the cross connection incident,
3. Affected area,
4. Cause of the cross connection incident,
5. Public health impact,
6. Date and text of any public health advisory issued,
7. Corrective action taken, and
8. Date of completion of corrective action.

B. Emergencies. A public water system shall notify the Department, by telephone or facsimile, as soon as possible but no later than 24 hours after the occurrence of any of the following emergencies:
1. Loss of water supply from a source;
2. Loss of water supply due to major component failure;
3. Damage to power supply equipment or loss of power;
4. Contamination of water in the distribution system from backflow;
5. Collapse of a reservoir, reservoir roof, or pumphouse structure;
6. Break in a transmission or distribution line that results in a loss of service to customers for more than four hours; and
7. Chemical or microbiological contamination of the water supply.

C. Waterborne disease outbreak. A public water system shall report to the Department the occurrence of a waterborne disease outbreak that may be attributable to water provided by the public water system as soon as possible but no later than 24 hours after the public water system receives actual notice of the waterborne disease outbreak.

D. Department requests for records. A public water system shall submit to the Department, within the time stated in the Department's request, copies of any records that the public water system is required to retain under this Chapter or copies of any documents that the Department is entitled to inspect under 42 U.S.C. 300j-4 (2001).

E. Department reporting forms. A public water system shall report to the Department the results of all analyses completed under this Chapter on Department-approved forms.

F. Direct reporting. A public water system may contract with a laboratory or another agent to report monitoring results to the Department, but the public water system remains legally responsible for compliance with reporting requirements.

G. Forty eight-hour reporting requirement. A public water system shall report the failure to comply with any of the provisions of this Chapter to the Department within 48 hours, except where a different reporting period is specified in this Chapter.

Historical Note

Corrected A.R.S. reference (Supp. 77-3). Amended effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-211 renumbered without change as Section R18-4-211 (Supp. 87-3). Amended effective Dec. 1, 1988 (Supp. 88-4). Repealed effective June 30, 1989 (Supp. 89-2). New Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-211 repealed; new Section renumbered from R18-4-104 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-212. Groundwater Under the Direct Influence of Surface Water

A. The Department suspects the following sources to be groundwater under the direct influence of surface water:
1. A spring;
2. An infiltration gallery;
3. A radial well collector, Ranney well, or horizontal well;
4. A well that is less than 500 feet from a surface water, and:
   a. The Department conducts a vulnerability assessment and determines that the source is vulnerable to direct surface water influence, or
   b. The Department cannot assess the vulnerability of the groundwater source to direct surface water influence because of a lack of information or the uncertainty of available information on the local hydrogeology or well construction characteristics;
5. A shallow well with perforations or well screens that are less than 50 feet below the ground surface;
6. A hand-dug or auger-bored well without a casing;
7. A groundwater source for which turbidity data is available that shows that the groundwater violates an interim MCL for turbidity;
8. A groundwater source for which data is available that shows that total coliform, fecal coliform, or *E. Coli* are present in untreated groundwater from the source that are not related to new well development, source modification, repair, or maintenance; and
9. Any groundwater source if the temperature of the groundwater fluctuates 15% to 20% from the mean groundwater temperature over the course of a year or if changes in the temperature of the groundwater correlate to similar changes in the temperature of surface water.

B. The Department shall conduct a sanitary survey of each public water system that the Department suspects is using a groundwater source under the direct influence of surface water.

C. The Department shall provide written notice to a public water system that the Department suspects a groundwater source is under the direct influence of surface water. A public water system may submit information to the Department to show that a groundwater source is not under the direct influence of surface water. Information that is submitted to show that a suspect groundwater source is not under the direct influence of surface water shall be in writing and shall be prepared by a qualified professional, such as a professional engineer registered in Arizona, registered geologist, water system operator, or hydrogeologist. The Department shall review any information submitted by a qualified professional to show a suspect groundwater source is not under the direct influence of surface water within 90 days after receipt of the information and determine if the source remains suspect.

D. If a groundwater source continues to be suspect after the analyses required in subsections (A) through (C), the Department may require a public water system that is suspected of using a groundwater source that is under the direct influence of surface water to conduct Microscopic Particle Analysis (MPA) monitoring of the groundwater source. A public water system may request that the Department allow the system to use an alternative method to determine whether a groundwater source is under the direct influence of surface water. An alternative method to determine whether a groundwater source is under the direct influence of surface water shall be approved by the

Arizona Department of Health Services under 9 A.A.C. 14, Article 6.

E. A public water system shall conduct MPA monitoring as follows:

1. Each sample shall be representative of the groundwater source. A public water system shall not take a sample of blended water or a sample of water from the distribution system.
2. Each sample shall be collected and analyzed according to the procedures prescribed in the "Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA)," EPA 910/9-92-029, United States Environmental Protection Agency, Environmental Services Division, Manchester Environmental Laboratory, 7411 Beach Dr. E., Port Orchard, WA 98366, October 1992 (and no future editions or amendments), which is incorporated by reference and on file with the Department.
3. The Department shall schedule MPA monitoring at a time when the groundwater source is most susceptible to direct surface water influence.
4. The Department shall use the MPA risk ratings in Table 1 to determine whether groundwater is under the direct influence of surface water.
   a. If the MPA risk rating of the initial sample indicates a high or moderate risk of direct surface water influence, the public water system shall collect a second sample for MPA at the same location on a date scheduled by the Department. If the MPA risk rating of the second sample indicates a high or moderate risk of direct surface water influence, the Department shall determine that the groundwater is under the direct influence of surface water. If the risk rating of the second sample indicates a low risk of direct surface water influence, the public water system shall collect a third sample for MPA at the same location on a date scheduled by the Department. If a third sample is taken, the Department shall determine whether the groundwater is under the direct influence of surface water under subsection (E)(4)(c).
   b. If the MPA risk rating of the initial sample indicates a low risk of direct surface water influence, the public water system shall collect a second sample for MPA at the same location on a date scheduled by the Department. If the MPA risk rating of the second sample indicates a low risk of direct surface water influence, the Department shall determine that the groundwater is not under the direct influence of surface water. If the MPA risk rating of the second sample indicates a high or moderate risk of direct surface water influence, the public water system shall collect a third sample for MPA at the same location on a date scheduled by the Department. If a third sample is taken, the Department shall determine whether the groundwater is under the direct influence of surface water under subsection (E)(4)(c).
   c. If a third sample is required and the MPA risk rating of the third sample indicates a high or moderate risk of direct surface water influence, the Department shall determine that the groundwater is under the direct influence of surface water. If the MPA risk rating of the third sample indicates a low risk of direct surface water influence, the Department shall determine that the groundwater is not under the direct influence of surface water.

F. If the Department determines a source to be groundwater under the direct influence of surface water under subsection (E) and a public water system demonstrates to the Department that it is feasible to take corrective action to prevent direct surface water influence, the Department shall establish a schedule of compliance for the public water system to take corrective action instead of requiring installation of filtration and disinfection treatment. A schedule of compliance to take corrective action shall require:

1. Completion of corrective action no later than 18 months after receipt of the initial MPA monitoring results, and
2. A second round of MPA monitoring to determine whether the source is under the direct influence of surface water after completion of the corrective action.

G. Except as provided in subsection (F), a public water system with a source that the Department determines to be groundwater under the direct influence of surface water shall provide filtration and disinfection required under 40 CFR 141 Subparts H, P, and T, as incorporated by reference in this Chapter, within 18 months after the date that the Department makes the final determination that the groundwater is under the direct influence of surface water.

H. The Department shall provide a written notice to a public water system of a final determination that a groundwater source is under the direct influence of surface water. The notice shall contain the information required by A.R.S. § 41-1092.03(A).

I. A public water system may appeal a final determination that a groundwater source is under the direct influence of surface water by serving notice of appeal with the Department under the Uniform Administrative Hearing Procedures in A.R.S. Title 41, Chapter 6, Article 10. A public water system shall file notice of appeal with the Department within 30 days after receiving notice of the Department's determination that a groundwater source is under the direct influence of surface water. The Department shall notify the Office of Administrative Hearings which shall schedule a hearing on the appeal within 60 days after the date that notice of appeal is filed with the Department. Hearings shall be conducted according to the Uniform Administrative Hearing Procedures in A.R.S. Title 41, Chapter 6, Article 10.

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Section R18-4-212 repealed; new Section renumbered from R18-4-301.01 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Table 1. Decision Matrix for Determining Groundwater Under the Direct Influence of Surface Water

Initial Sample MPA Risk Rating	Second Sample MPA Risk Rating	Third Sample MPA Risk Rating	Groundwater Under the Direct Influence of Surface Water
High	High or Moderate		Yes
High	Low	High or Moderate	Yes
High	Low	Low	No
Moderate	High or Moderate		Yes
Moderate	Low	High or Moderate	Yes
Moderate	Low	Low	No
Low	High or Moderate	High or Moderate	Yes
Low	High or Moderate	Low	No
Low	Low		No

Historical Note

New Table 1 renumbered from R18-4-301.01, Table 1 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-213. Standards for Additives, Materials, and Equipment

A. Each product added directly to water during production or treatment shall conform to ANSI/NSF Standard 60. Products covered by this subsection include but are not limited to:
1. Coagulation and flocculation chemicals;
2. Chemicals for corrosion and scale control;
3. Chemicals for softening, precipitation, sequestering, and pH adjustment;
4. Disinfection and oxidation chemicals;
5. Chemicals for fluoridation, defluoridation, algae control, and dechlorination;
6. Dyes and tracers;
7. Antifreezes, antifoamers, regenerants, and separation process scale inhibitors and cleaners; and
8. Water well drilling and rehabilitation aids.

B. Except as identified in subsections (D) and (E), a material or product installed after January 1, 1993, that comes into contact with water or a water treatment chemical shall conform to ANSI/NSF Standard 61. Products and materials covered by this subsection include but are not limited to:
1. Process media, such as carbon and sand;
2. Joining and sealing materials, such as solvents, cements, welding materials, and gaskets;
3. Lubricants;
4. Pipes and related products, such as tanks and fittings;
5. Mechanical devices used in treatment, transmission, or distribution systems such as valves, chlorinators, and separation membranes; and
6. Surface coatings and paints.

C. Evidence that a product conforms to the requirements of this Section shall be the appearance on the product or product package of a seal of a certifying entity that is accredited by the American National Standards Institute to provide the certification.

D. *Chemicals and additives certified as conforming to the national sanitation foundation standards comply with the standards required by this section. ... In those instances where chemicals, additives and drinking water system components that come into contact with drinking water are essential to the design, construction or operation of the drinking water system and have not been certified by the national sanitation foundation or have national sanitation foundation certification but are not available from more than one source, the standards shall provide for the use of alternatives which include:*
1. *Chemicals and additives composed entirely of ingredients determined by the environmental protection agency, the food and drug administration or other federal agencies as appropriate for addition to potable water or aqueous food.*
2. *Chemicals and additives composed entirely of ingredients listed in the national academy of sciences water chemicals codex.*
3. *Chemicals, additives and drinking water system components consistent with the specifications of the American water works association.*
4. *Chemicals, additives and drinking water system components that are designed for use in drinking water systems and that are consistent with the specifications of the American society for testing and materials.*
5. *Drinking water system components that are historically used or in use in drinking water systems consistent with standard practice and that have not been demonstrated during past applications in the United States to contribute to water contamination.* A.R.S. §§ 49-353.01(B) and (C) (2006).

E. The Department exempts the following materials and products from the requirement to conform to ANSI/NSF Standard 61:
1. A concrete structure, tank, or treatment tank basin that is constructed onsite if the structure, tank, or basin is not normally coated or sealed and the construction materials used in the concrete are consistent with subsection (D). If a coating or sealant is specified by the design engineer, the coating or sealant shall comply with ANSI/NSF Standard 61;
2. An earthen reservoir or canal located upstream of water treatment;
3. A water treatment plant that is comprised of components that comply with subsections (B), (C), and (D);
4. A synthetic tank constructed of material that meets Food and Drug Administration standards for a material that comes into contact with drinking water or aqueous food, or a galvanized steel tank, either of which is:
   a. Less than 15,000 gallons in capacity, and
   b. Used in a public water system with 500 or fewer service connections; or
5. A pipe, treatment plant component, or water distribution system component made of lead-free stainless steel.

Historical Note

Former Section R9-8-213 repealed, new Section R9-8-213 adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-213 renumbered without change as Section R18-4-213 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted

effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-213 repealed; new Section renumbered from R18-4-119 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214. Hauled Water

A. All hauled water for delivery to a public water system shall be obtained from a source that is approved pursuant to 18 A.A.C. 5, Article 5, or a regulated public water system.

B. Materials or products that come into contact with the water shall comply with R18-4-213(B).

C. Roof hatches shall be fitted with a watertight cover.

D. A bottom drain valve or other provisions to allow complete drainage and cleaning of a water transport container shall be provided.

E. Hoses that are used to deliver drinking water shall be equipped with a cap and shall remain capped when not in use.

F. A water hauler shall, at all times, maintain a residual free chlorine level of 0.2 mg/l to 1.0 mg/l in the water that is hauled in a water transport container. A chlorine disinfectant shall be added at the time water is loaded into the container. The residual free chlorine level shall be measured each time water is off-loaded from the container. The water hauler shall maintain a log of all on-loading, chlorine disinfectant additions and residual-free chlorine measurements. Such records shall be maintained for at least three years and made available to the Department for review upon request.

G. A water transport container shall be for hauling drinking water only. The container shall be plainly and conspicuously labeled "For Drinking Water Use Only."

Historical Note

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-214 repealed; new Section renumbered from R18-4-125 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214.01. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-214.01 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-214.02. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective January 1, 2004 (Supp. 02-3). R18-4-214.02 including Table 1 and Table 2 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-215. Backflow Prevention

A. A public water system shall protect its system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. Required backflow-prevention assemblies shall be installed as close as practicable to the service connection.

B. A public water system shall ensure that a backflow-prevention assembly is installed whenever any of the following occur:

1. A substance harmful to human health is handled in a manner that could permit its entry into the public water system. These substances include chemicals, chemical or biological process waters, water from public water supplies that has deteriorated in sanitary quality, and water that has entered a fire sprinkler system. A Class 1 or Class 2 fire sprinkler system is exempt from the requirements of this Section;
2. A source of water supply exists on the user's premises that is not accepted as an additional source by the public water system or is not approved by the Department;
3. An unprotected cross-connection exists or a cross-connection problem has previously occurred within a user's premises; or
4. There is a significant possibility that a cross-connection problem will occur and entry to the premises is restricted to the extent that cross-connection inspections cannot be made with sufficient frequency or on sufficiently short notice to ensure that unprotected cross-connections do not exist.

C. Unless a cross-connection problem is specifically identified, or as otherwise provided in this Section, the requirements of this Section shall not apply to single-family residences used solely for residential purposes.

D. A backflow-prevention assembly required by this Section shall comply with the following:

1. If equipped with test cocks, it shall have been issued a certificate of approval by:
   a. The University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR), or
   b. A third-party certifying entity that is unrelated to the product's manufacturer or vendor, and is approved by the Department.
2. If not equipped with test cocks, it shall be approved by a third-party certifying entity that is unrelated to the product's manufacturer or vendor and is approved by the Department.

E. The minimum level of backflow protection that is provided to protect a public water system shall be the level recommended in Section 7.2 of the Manual of Cross-Connection Control, Ninth Edition, USC-FCCCHR, KAP-200 University Park MC-2531, Los Angeles, CA, 90089-2531, December 1993, (and no future editions or amendments), incorporated by reference and on file with the Department. The types of backflow prevention that may be required, listed in decreasing order according to the level of protection they provide, include: an air-gap separation (AG), a reduced pressure principle backflow prevention (RP) assembly, a pressure vacuum breaker (PVB) assembly, and a double check valve (DC) assembly. Nothing contained in this Section shall prevent a public water system from requiring the use of a higher level of protection than the level required by this subsection.

1. A public water system may make installation of a required backflow-prevention assembly a condition of service. A user's failure to comply with this requirement shall be sufficient cause for the public water system to terminate water service.
2. Specific installation requirements for backflow prevention include the following:
   a. Any backflow prevention required by this Section shall be installed in accordance with the manufacturer's specifications.
   b. For an AG installation, all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the public water system.

c. An RP assembly shall not be installed in a meter box, pit, or vault unless adequate drainage is provided.
d. A PVB assembly may be installed for use on a landscape water irrigation system if the irrigation system conforms to all of the criteria listed below. An RP assembly is required whenever any of the criteria are not met.
i. The water use beyond the assembly is for irrigation purposes only;
ii. The PVB is installed in accordance with the manufacturer's specifications;
iii. The irrigation system is designed and constructed to be incapable of inducing backpressure; and
iv. The injection of chemical pesticides and fertilizers, chemigation, is not used or provided in the irrigation system.

F. Each backflow-prevention assembly required by this Section shall be tested at least annually, or more frequently if directed by the public water system or the Department. Each assembly shall also be tested after installation, relocation, or repair. An assembly shall not be placed in service unless it has been tested and is functioning as designed. The following provisions shall apply to the testing of backflow-prevention assemblies:
1. Testing shall be in accordance with procedures described in Section 9 of the Manual of Cross-Connection Control. The public water system shall notify the water user when testing of backflow-prevention assemblies is needed. The notice shall specify the date by which the testing must be completed and the results forwarded to the public water system.
2. Testing shall be performed by a person who is currently certified as a "general" tester by the California-Nevada Section of the American Water Works Association (CA-NV Section, AWWA), the Arizona State Environmental Technical Training (ASETT) Center, or other certifying authority approved by the Department.
3. When a backflow-prevention assembly is tested and found to be defective, it shall be repaired or replaced in accordance with the provisions of this Section.

G. A public water system shall maintain records of backflow-prevention assembly installations and tests performed on backflow-prevention assemblies in its service area. Records shall be retained by the public water system for at least three years and shall be made available for review by the Department upon request. These records shall include an inventory of backflow-prevention assemblies required by this Section and, for each assembly, all of the following information:
1. Assembly identification number and description,
2. Location,
3. Date of tests,
4. Description of repairs and recommendations for repairs made by the tester, and
5. The tester's name and certificate number.

H. A public water system shall submit a written cross-connection incident report to the Department and the local health authority within five business days after a cross-connection problem occurs that results in contamination of the public water system. The report shall address all of the following:
1. Date and time of discovery of the unprotected cross-connection,
2. Nature of the cross-connection problem,
3. Affected area,
4. Cause of the cross-connection problem,
5. Public health impact,
6. Date and text of any public health advisory issued,
7. Each corrective action taken, and
8. Date of completion of each corrective action.

I. An individual with direct responsibility for implementing a backflow prevention program for a water system serving more than 50,000 persons, or an individual with direct responsibility for implementing a backflow prevention program for a for a water system serving 50,000 or fewer persons if the Department has determined that such a need exists, shall be licensed as a "cross-connection control program specialist" by the CA-NV Section, AWWA, the ASETT Center, or another certifying authority approved by the Department.

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-215 repealed; new Section renumbered from R18-4-115 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-216. Vending Machines
An owner of a water vending machine shall be responsible for the proper operation of each water vending machine. The owner shall do all of the following:
1. Clean and maintain each water vending machine according to the manufacturer's recommendations;
2. Retain maintenance and cleaning records for one year;
3. Have analyses performed at least once every six months for total coliform bacteria. Results of such analyses shall be retained for one year. If a sample is positive for total coliform, the water vending machine shall be removed from service, and all components shall be cleaned, replaced, or serviced. The water vending machine shall not be placed back into service until another total coliform bacteria analysis is performed and the result is negative; and
4. Maintain in operable condition all ultraviolet, ozone, or other disinfection components and automatic disabling capabilities built into the vending machine for use in the event of a disinfection system malfunction.

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-216 repealed; new Section renumbered from R18-4-123 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-217. Use of Blending to Achieve Compliance with Maximum Contaminant Levels

A. A public water system may use blending to achieve compliance with a MCL if all of the following requirements are met:
1. The public water system has obtained the Department's written approval for a blending plan that includes the following elements:
a. Detailed drawings and schematics that show flow, concentrations, and controls;
b. Proposed automatic or electronic devices that will be incorporated to ensure that the blend remains in the desired range or shuts off the offending source or triggers an alarm when the blend falls out of the desired range;

c. Individual test results from all sources proposed to be blended;
d. Projected contaminant levels that will result from blending that show both best-case and worst-case scenarios;
e. Identified techniques, and any other information requested by the Department, that show how the blending plan will produce water that will comply with MCLs; and

2. The public water system has obtained the Department's written approval for a monitoring program designed to verify continued compliance with MCLs at all subsequent downstream service connections. This program shall include monitoring on at least a quarterly basis of both of the following:
   a. All sources contributing to the blend; and
   b. Blended water to ensure that the provisions of this Section are met.

B. A public water system shall submit an amended blending plan to the Department to confirm that the new blend achieves compliance with MCLs whenever sources are added to or removed from service or the relative flow rates from blended sources are changed in a way that changes the blend.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-217 repealed; new Section renumbered from R18-4-221 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-218. Criteria and Procedures for Public Water Systems Using Point-of-Entry or Point-of-Use Treatment Devices

A. A water supplier may use a point-of-entry (POE) or point-of-use (POU) treatment technology to achieve compliance with a MCL or treatment technique if the water supplier meets the requirements of this Section.

B. A public water system may use a POE or POU treatment device to achieve compliance with a MCL, if the treatment device:
1. Is not used to achieve compliance with an MCL or treatment technique for a microbial contaminant or an indicator for a microbial contaminant, in accordance with 42 U.S.C. 300g-1(b)(4)(E)(ii) (2007);
2. Is listed in 40 CFR 141 as an acceptable compliance technology for the applicable contaminant;
3. Is certified against the applicable NSF/ANSI Standards;
4. Is owned, controlled and maintained by a public water system or by a person under contract with the public water system to ensure proper operation, maintenance, and compliance with MCLs or treatment techniques; and
5. Is equipped with mechanical warnings to ensure that customers are automatically notified of recommended system maintenance and or operational problems. This performance indication device shall provide notice to the end user at a defined moment in time without shutting off the POE or POU device.

C. Prior to installing a POE or POU treatment device, a public water system shall obtain the Department's written approval of a POE or POU operation and maintenance (O & M) plan. A public water system shall submit an O & M plan to the Department that ensures proper long-term operation, maintenance, and monitoring of the POE or POU treatment devices. An O & M plan shall ensure that:
1. The POE or POU treatment device provides health protection equivalent to the health protection provided by centralized water treatment. "Equivalent" means that water treated by the POE or POU treatment device meets all national primary drinking water regulations.
2. A residential building, or a nonresidential building that uses water for human consumption, that is connected to the public water system has a POE or POU treatment device that is installed, operated, maintained, and monitored in a manner that assures continuous compliance with the MCLs, treatment techniques, and other requirements of this Chapter.
3. Multi-unit residential and nonresidential buildings utilizing POU treatment devices to achieve compliance with this Chapter have a sufficient number of POU devices installed to provide adequate potable water for all residents, employees, and customers.
4. The rights and responsibilities of persons served by the public water system are conveyed with the title upon the sale of property containing a POU treatment device, including but not limited to the following:
   a. The public water system owns and is responsible for maintaining a POU treatment device that is installed to meet the requirements of this Section; and
   b. Persons served by public water systems must grant public water system employees reasonable access to POU treatment devices, so that the devices can be properly maintained. Public water systems may discontinue water service to a customer who refuses to allow public water system employees to enter the customer's home or business to inspect and maintain POU treatment devices.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-218 repealed; new Section renumbered from R18-4-222 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-219. Exclusions

A. A water supplier may request an exclusion from any requirement contained in this Chapter if such requirement is not also a requirement contained in a federal drinking water law. The Department shall consider the application of a water supplier for an exclusion from compliance with portions of this Chapter if the water supplier satisfactorily demonstrates that:
1. The request is not for a requirement that could be the subject of a variance or exemption under R18-4-103;
2. The request is not for requirements relating to turbidity, nitrate, or microbiological contaminants; and
3. The exclusion will not result in unreasonable risk to public health.

B. An application for an exclusion shall contain the following information:
1. The nature and duration of the exclusion requested,
2. Analytical results of water quality sampling of the water system including tests conducted as required by this Chapter,
3. An explanation and submittal of evidence that the exclusion will not result in an unreasonable risk to public health, and
4. Other information that the applicant believes to be pertinent or that the Department requires.

C. The Department shall take the following action on the application:
1. If the Department grants the request for an exclusion, it shall notify the applicant of that decision in writing within 90 days of receipt of the application. Such notice shall identify the facility covered, the conditions and requirements of the exclusion, including control measures, and that the exclusion may be terminated upon a finding that the water system has failed to comply with any conditions or requirements of the exclusion.
2. If the Department determines that an exclusion is not justified, it shall notify the applicant of the intention of denial within 90 days of receipt of the application, indicating the reasons for the proposed denial, and shall offer the applicant an opportunity to submit additional information to the Department within 30 days of the notice of intention to deny application. The Department shall make a final determination and notify the applicant within 30 days after receiving such additional information. If no additional information is submitted, the application shall be denied.

D. In addition to reviewing a request submitted by a water supplier, the Department may, on its own initiative, grant exclusions to water systems, either individually or on a group basis, if the exclusions meet criteria prescribed in subsection (A).

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-219 repealed; new Section renumbered from R18-4-112 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-220. Repealed

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-220 renumbered without change as Section R18-4-220 (Supp. 87-3). Section repealed effective June 30, 1989 (Supp. 89-2). New Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-220 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-221. Renumbered

Historical Note

Former Section R9-8-221 repealed, new Section R9-8-221 adopted effective May 26, 1978 (Supp. 78-3). Correction, subsection (D), paragraph (2), subparagraph (b), drinking water standard for silvex, should read 0.01 mg/l as amended effective May 26, 1978 (Supp. 82-3). Amended subsection (D) effective November 2, 1982 (Supp. 82-6). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-221 renumbered without change as Section R18-4-221 (Supp. 87-3). Amended and new subsections (F) and (G) added effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-221 renumbered to R18-4-217 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-222. Renumbered

Historical Note

Former Section R9-8-222 repealed, new Section R9-8-222 adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-222 renumbered without change as Section R18-4-222 (Supp. 87-3). Amended and new subsections (C) and (D) added effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-222 renumbered to R18-4-218 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-223. Use of Bottled Water

A. A public water system may use bottled water on a temporary basis to avoid an unreasonable risk to health. A public water system shall not use bottled water to achieve compliance with a MCL.

B. If a public water system uses bottled water to avoid an unreasonable risk to health, the public water system is responsible for the provision of sufficient quantities of bottled water to every person served by the public water system via door-to-door bottled water delivery.

C. A public water system that uses bottled water as a condition for receiving a variance or an exemption shall comply with the following:
1. The public water system shall develop and put in place a monitoring program approved by the Department that provides reasonable assurances that the bottled water meets applicable MCLs. The public water system shall monitor a representative sample of the bottled water to determine compliance with applicable MCLs during the first three-month period that it supplies the bottled water to the public and annually thereafter. Results of the bottled water monitoring program shall be provided to the Department annually; or
2. The public water system shall receive a certification from the bottled water company that the bottled water supplied has been taken from an "approved source" as defined in 21 CFR 129.3(a); the bottled water company has conducted monitoring in accordance with 21 CFR 129.80(g)(1) through (3); and the bottled water does not exceed any MCLs or quality limits as set out in 21 CFR 165.110, 21 CFR 110, and 21 CFR 129. The public water system shall provide the certification to the Department in the first quarter after it supplies bottled water and annually thereafter. The Department may waive the certification requirements prescribed in this subsection if an approved monitoring program is already in place in another state; and
3. The public water system is fully responsible for the provision of sufficient quantities of bottled water to every person served by the public water system via door-to-door bottled water delivery.

Historical Note

Former Section R9-8-223 repealed, new Section R9-8-223 adopted effective May 26, 1978 (Supp. 78-3).

Amended effective August 7, 1979 (Supp. 79-4). Amended subsection (D), paragraph (4) effective November 2, 1982 (Supp. 82-6). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-223 renumbered without change as Section R18-4-223 (Supp. 87-3). Amended and a new subsection (F) added effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Section repealed, new Section adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

R18-4-224. Renumbered

Historical Note

Former Section R9-224 repealed, new Section R9-8-224 adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-224 renumbered without change as Section R18-4-224 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Former Section R18-4-224 repealed effective August 8, 1991 (Supp. 91-3). New Section adopted effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-224 renumbered to R18-4-301 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-225. Renumbered

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-225 renumbered without change as Section R18-4-225 (Supp. 87-3). Former Section R18-4-224 repealed effective August 8, 1991 (Supp. 91-3). New Section adopted effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-225 renumbered to R18-4-304 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-226. Renumbered

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended subsection (B) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-226 renumbered without change as Section R18-4-226 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Former Section R18-4-224 repealed effective August 8, 1991 (Supp. 91-3). New Section adopted effective December 8, 1998 (Supp. 98-4). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-226 renumbered to R18-4-305 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-227. Repealed

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-3-227 renumbered without change as Section R18-4-227 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Former Section R18-4-224 repealed effective August 8, 1991 (Supp. 91-3).

R18-4-228. Repealed

Historical Note

Adopted effective June 30, 1989 (Supp. 89-2). Former Section R18-4-224 repealed effective August 8, 1991 (Supp. 91-3).

R18-4-229. Repealed

Historical Note

Adopted effective June 30, 1989 (Supp. 89-2). Former Section R18-4-224 repealed effective August 8, 1991 (Supp. 91-3).

R18-4-230. Repealed

Historical Note

Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-230 renumbered without change as Section R18-4-230 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-231. Repealed

Historical Note

Former Section R9-8-231 repealed, new Section R9-8-231 adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-231 renumbered without change as Section R18-4-231 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-232. Repealed

Historical Note

Former Section R9-8-232 repealed, new Section R9-8-232 adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-232 renumbered without change as Section R18-4-232 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-233. Repealed

Historical Note

Former Section R9-8-233 repealed, new Section R9-8-232 adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-233 renumbered without change as Section R18-4-233 (Supp. 87-3). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-234. Repealed

Historical Note

Former Section R9-8-234 repealed, new Section R9-8-234 adopted effective May 26, 1978 (Supp. 78-3). Amended effective Feb. 20, 1980 (Supp. 80-1). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-234 renumbered without change as Section R18-4-234 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-235. Repealed

Historical Note

Adopted effective January 6, 1984 (Supp. 84-1). Former Section R9-8-235 renumbered without change as Section R18-4-235 (Supp. 87-3). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed

effective April 28, 1995 (Supp. 95-2).

R18-4-236. Repealed

Historical Note
Adopted effective January 6, 1984 (Supp. 84-1). Former Section R9-8-236 renumbered without change as Section R18-4-236 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-237. Repealed

Historical Note
Adopted effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-238. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-239. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-240. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-241. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-242. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-243. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-244. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-245. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-246. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-247. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-248. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-249. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-250. Repealed

Historical Note
Former Section R9-8-250 repealed, new Section R9-8-250 adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-250 renumbered without change as Section R18-4-250 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-251. Repealed

Historical Note
Former Section R9-8-250 repealed, new Section R9-8-251 adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended by adding subsection (B) effective November 2, 1982 (Supp. 82-6). Former Section R9-8-251 renumbered without change as Section R18-4-251 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-252. Repealed

Historical Note
Former Section R9-8-252 repealed, new Section R9-8-252 adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended subsection (A) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-252 renumbered without change as Section R18-4-252 (Supp. 87-3). Amended by adding a new subsection (C) effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

R18-4-253. Repealed

Historical Note
Former Section R9-8-253 repealed, new Section R9-8-253 adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended subsection (A) and deleted subsection (B) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-253 renumbered without change as Section R18-4-253 (Supp. 87-3). Repealed effective August 8, 1991 (Supp. 91-3).

R18-4-254. Reserved

R18-4-255. Reserved

R18-4-256. Reserved

R18-4-257. Reserved

R18-4-258. Reserved

R18-4-259. Reserved

R18-4-260. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-260 renumbered without change as Section R18-4-260 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-261. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-261 renumbered without change as Section R18-4-261 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-262. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-262 renumbered without change as Section R18-4-262 (Supp. 87-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-263. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-263 renumbered without change as Section R18-4-263 (Supp. 87-3). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-264. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended subsection (B) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-264 renumbered without change as Section R18-4-264 (Supp. 87-3). Repealed effective June 30, 1989 (Supp. 89-2). New Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-265. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-265 renumbered without change as Section R18-4-265 (Supp. 87-3). Amended subsections (B) and (C) effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-266. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-266 renumbered without change as Section R18-4-266 (Supp. 87-3). Amended subsection (A) effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-267. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-267 renumbered without change as Section R18-4-267 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-268. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-268 renumbered without change as Section R18-4-268 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-269. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-269 renumbered without change as Section R18-4-269 (Supp. 87-3). Amended subsection (A) effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-270. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-270 renumbered without change as Section R18-4-270 (Supp. 87-3). Repealed effective June 30, 1989 (Supp. 89-2). New Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-271. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-271 renumbered without change as Section R18-4-271 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-272. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended subsections (A) and (D) effective January 6, 1984 (Supp. 84-1). Former Section R9-8-272 renumbered without change as Section R18-4-272 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-273. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Amended effective August 7, 1979 (Supp. 79-4). Amended effective January 6, 1984 (Supp. 84-1). Former Section R9-8-273 renumbered without change as Section R18-4-273 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-274. Reserved

R18-4-275. Reserved

R18-4-276. Reserved

R18-4-277. Reserved

R18-4-278. Reserved

R18-4-279. Reserved

R18-4-280. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-281. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-282. Repealed

Historical Note
Adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

R18-4-283. Reserved

R18-4-284. Reserved

R18-4-285. Reserved

R18-4-286. Reserved

R18-4-287. Reserved

R18-4-288. Reserved

R18-4-289. Reserved

R18-4-290. Repealed

Historical Note
Adopted effective May 26, 1978 (Supp. 78-3). Former Section R9-8-290 renumbered without change as Section R18-4-290 (Supp. 87-3). Amended effective June 30, 1989 (Supp. 89-2). Section repealed, new Section adopted effective August 8, 1991 (Supp. 91-3). Repealed effective April 28, 1995 (Supp. 95-2).

Appendix 1. Repealed

Amended effective January 6, 1984 (Supp. 84-1). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

Appendix 2. Repealed

Amended effective January 6, 1984 (Supp. 84-1). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

Appendix 3. Repealed

Historical Note
Amended effective January 6, 1984 (Supp. 84-1). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

Appendix 4. Repealed

Historical Note
Former Appendix 4 repealed, new Appendix 4 adopted effective January 6, 1984 (Supp. 84-1). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

Appendix 5. Repealed

Historical Note
Former Appendix 5 renumbered as Appendix 6, new Appendix 5 adopted effective November 2, 1982 (Supp. 82-6). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

Appendix 6. Repealed

Historical Note
Former Appendix 5 renumbered as Appendix 6 effective November 2, 1982 (Supp. 82-6). Former Appendix 6 repealed, new Appendix 6 adopted effective January 6, 1984 (Supp. 84-1). Amended effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

Appendix 7. Repealed

Historical Note
Adopted effective June 30, 1989 (Supp. 89-2). Repealed effective August 8, 1991 (Supp. 91-3).

ARTICLE 3. MONITORING ASSISTANCE PROGRAM

R18-4-301. Applicability

A. A public water system that serves 10,000 or fewer persons shall participate in the monitoring assistance program. Within 60 days after receiving notice of participation in the monitoring assistance program from the Department, a public water system that determines that it serves more than 10,000 persons shall substantiate its determination by submitting to the Department the portion of the most recent census provided by the Arizona Department of Economic Security, Research Administration, Population Statistics Unit that supports the public water system's determination.

B. A public water system that is not obligated to participate in the monitoring assistance program may elect to participate in the monitoring assistance program if the owner of the public water system:
1. Notifies the Department in writing of the public water system's intention to participate in the monitoring assistance program,
2. Agrees to participate in the monitoring assistance program for a minimum of three years, and
3. Pays the fees required by R18-4-304. Subject to payment of the required fees, the public water system's participation shall begin at the start of the next full calendar year of a compliance period.

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-301 repealed; new Section renumbered from R18-4-224 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-301.01. Renumbered

Historical Note
New Section adopted by final rulemaking at 5 A.A.R. 1686, effective April 19, 1999 (Supp. 99-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-301.01 renumbered to R18-4-212 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3)

Table 1. Renumbered

Historical Note
New Table made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Table 1 following R18-4-301.01 renumbered to R18-4-212, Table 1 by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-301.02. Repealed

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-301.02 and Tables 1 and 2 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-302. Contractor Responsibilities

A. Under the monitoring assistance program, a contractor is authorized to collect, transport, analyze, and report water samples on behalf of a participating public water system. The contractor or a party designated by the contractor shall conduct baseline monitoring for all chemicals for which the system is required to monitor under this Chapter, except for copper, lead, disinfection byproducts, and microbiological contaminants, which remain the responsibility of the public water system. Baseline monitoring includes routine monitoring for contaminants included in the monitoring assistance program. Baseline monitoring does not include increased monitoring required by this Chapter when the results of baseline monitoring indicate the presence of a contaminant at a level that requires increased monitoring by a participating public water system.

B. A contractor shall deliver copies of monitoring analysis results to the public water system and to the Department.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-302 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-303. Public Water System Responsibilities

A. Although a contractor performs baseline monitoring when a public water system participates in the monitoring assistance program, the public water system remains legally responsible for compliance with all other requirements of this Chapter.

B. The legal owner of a public water system participating in the monitoring assistance program shall notify the Department by July 1 of each year of:
1. The legal owner's name, current mailing address, and phone number;
2. The population currently served by the public water system;
3. The public water system identification number; and
4. The number of meters and service connections currently in the public water system.

C. A public water system that participates in the monitoring assistance program shall not deny a contractor access to or restrict a contractor's access to the public water system or prevent a contractor from collecting a sample covered under the monitoring assistance program.

D. Direct reporting. A public water system may contract with a laboratory or another agent to report monitoring results to the Department, but the public water system remains legally responsible for compliance with reporting requirements.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-303 repealed; new Section made by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-304. Fees for the Monitoring Assistance Program

A. The Department shall assess, and a public water system participating in the monitoring assistance program shall pay, the following annual fees, subject to adjustments referenced in subsection (B):
1. An annual fee of $250, and
2. A unit fee of $2.57 per meter or service connection.

B. If the monitoring assistance fund has a surplus after execution of the previous year's contract, any surplus in excess of $200,000 in any year shall be used to reduce future fees for public water systems that paid annual fees in the previous compliance period, in a manner consistent with the program invoicing system. In the first compliance period that a public water system participates in the monitoring assistance program, the public water system shall pay the full amount of annual fees due under this Section, and is not entitled to a fee reduction resulting from a surplus in the monitoring assistance fund from a prior compliance period.

C. If a public water system serving 10,000 or fewer persons at the beginning of a compliance period increases service during the compliance period so that the public water system serves more than 10,000 persons annually, the public water system may elect to cease participation in the monitoring assistance program under the following conditions:
1. If the monitoring assistance program has already conducted monitoring for the public water system during the compliance period, the public water system shall remain in the monitoring assistance program, and pay annual fees, for the remainder of the compliance period.
2. If the monitoring assistance program has not conducted monitoring for the public water system during the compliance period, the public water system may cease participating in the monitoring assistance program, and if so, the Department shall refund any monitoring fees paid by the public water system during the compliance period.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-304 repealed; new Section renumbered from R18-4-225 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-305. Collection and Payment of Fees

A. The Department shall annually mail an invoice for fees to the legal owner of a public water system participating in the monitoring assistance program. The owner of the public water system shall pay the invoiced amount to the Department, at the address listed on the invoice, by the due date indicated on the invoice.

B. The Department shall make refunds or billing corrections if a public water system demonstrates an error in the amount billed. The owner of a public water system shall send a written request for a refund or correction to the Department, at the address on the invoice, within 90 days of the invoice date.

C. The Department may verify the number of meters and service connections of a participating public water system.

D. The Department shall not waive fees prescribed by R18-4-304.

E. The owner of a public water system that fails to pay fees assessed by the Department in a timely manner shall be subject to the penalties listed in A.R.S. § 49-354. Failure to notify the Department of the owner's current mailing address does not relieve the owner of a public water system from liability for penalties.

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Section R18-4-305 renumbered to R18-4-306 by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

New Section R18-4-305 renumbered from R18-4-226 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-306. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Former Section R18-4-306 repealed; new Section R18-4-306 renumbered from R18-4-305 and amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-307. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-308. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-309. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-310. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-311. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-312. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-313. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-314. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-315. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-316. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-317. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Table 1. Repealed

Historical Note

Table 1 adopted by final rulemaking at 5 A.A.R. 1686, effective April 19, 1999 (Supp. 99-2). Table repealed by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

Appendix A. Repealed

Historical Note

New Appendix made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix A repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Appendix B. Repealed

Historical Note

New Appendix made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix B repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

ARTICLE 4. REPEALED

R18-4-401. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Former Section R18-4-401 repealed; new Section R18-4-401 renumbered from R18-4-402 and amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-402. Repealed

Historical Note

Adopted effective April 28, 1995 (Supp. 95-2). Amended

effective June 3, 1998 (Supp. 98-3). Amended effective December 8, 1998 (Supp. 98-4). Former Section R18-4-402 renumbered to R18-4-401; new Section R18-4-402 renumbered from R18-4-403 and amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-403. Repealed

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Section repealed; new Section adopted effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 7 A.A.R. 5067, effective October 16, 2001 (Supp. 01-4). Section R18-4-403 renumbered to R18-4-402 by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). New Section made by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-404. Repealed

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Section repealed by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

R18-4-405. Repealed

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective December 8, 1998 (Supp. 98-4). Section repealed by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

ARTICLE 5. RECODIFIED

Article 5 recodified to 18 A.A.C. 5, Article 5 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-501. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Section recodified to R18-5-501 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-502. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). A.R.S. citation in subsection (D)(4) corrected (Supp. 04-1). Section recodified to R18-5-502 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-503. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section recodified to R18-5-503 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-504. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section recodified to R18-5-504 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-505. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Subsection citation in subsection (B) corrected (Supp. 04-1). Section recodified to R18-5-505 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-506. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section recodified to R18-5-506 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-507. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section recodified to R18-5-507 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-508. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section recodified to R18-5-508 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

R18-4-509. Recodified

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section recodified to R18-5-509 at 10 A.A.R. 585, effective January 30, 2004 (Supp. 04-1).

Appendix A. Repealed

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Correction of word "sued" to "used" in subsection (71) (Supp. 96-1). Appendix A amended effective June 3, 1998 (Supp. 98-3). Appendix A repealed by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

Appendix B. Repealed

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Appendix B repealed; new Appendix B renumbered from Appendix C without change effective June 3, 1998 (Supp. 98-3). Appendix B repealed by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1).

Appendix C. Renumbered

Historical Note
Adopted effective April 28, 1995 (Supp. 95-2). Appendix C renumbered to Appendix B without change effective June 3, 1998 (Supp. 98-3).

ARTICLE 6. CAPACITY DEVELOPMENT REQUIREMENTS FOR A NEW PUBLIC DRINKING WATER SYSTEM

R18-4-601. Applicability
This Article applies to new CWSs and new NTNCWSs that begin operation on or after October 1, 1999. This Article does not apply to an existing public water system.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-602. Elementary Business Plan

A. To become a new public water system, an owner shall file an elementary business plan for review and approval by the Department, on a form provided by the Department. The elementary business plan shall meet the requirements of and contain all information required in R18-4-603, R18-4-604, and R18-4-605.

B. An owner shall not commence operation of a public water system without Department approval under R18-4-606.

C. If the owner of a new public water system fails to submit a complete application, the Department shall suspend the review process and send a notice of incomplete elementary business plan to the owner. The owner shall submit the missing information to the Department within 60 days of the date of the notice of incomplete elementary business plan. If missing information is not received at the Department within the 60 day time period, the Department shall deny the elementary business plan and return the elementary business plan to the owner.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-603. Technical Capacity Requirements

An owner of a new public water system shall submit the following to the Department for a determination of technical capacity:

1. Documentation of a drinking water source adequacy minimum of 50 gallons of water per person per day for a period of 100 years, a 100 year water availability designation from the Arizona Department of Water Resources (ADWR), or a Certificate of Assured Water Supply from ADWR;
2. Documentation that the drinking water served to the public will meet the safe drinking water standards of this Chapter;
3. Documentation that infrastructure, treatment, and storage design meets the requirements of this Chapter, Articles 2, 3, and 5;
4. Documentation that the public water system is operated by a certified operator of the sufficient grade and type; and
5. Documentation that contains at least the following:
   a. Day 1 to final build-out technical and engineering needs projections;
   b. Proposed water system design specification and proposed uses including commercial and domestic use phases;
   c. Information describing the life of the plant;
   d. A demonstration that all site-specific components meet nationally recognized standards, such as those established by the American Water Works Association, National Sanitation Foundation, or Underwriter's Laboratory;
   e. Manufacturers' specifications on components used in the construction of the water system; and
   f. Corrective action plan to address site-specific component replacement or repair protocols based on manufacturer's recommendations or engineer's specification.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-604. Managerial Capacity Requirements

An owner of a new public water system shall submit the following information as part of the elementary business plan to the Department for a determination of managerial capacity:

1. A statement of how the public water system is owned, such as by major stockholders, board of directors, sole proprietor cooperative, governmental agency or district, corporation, limited partnership, or limited liability corporation;
2. Name, address, and phone number of owner;
3. Organizational chart of the new public water system;
4. Staff job descriptions and responsibilities;
5. Water system capital improvement plan up to the proposed full system build-out or for a five-year projection, whichever is greater;
6. Certified operator grade and type that will be required by the new public water system, based upon water system design specifications;
7. A statement of the intent to create a CWS or NTNCWS and any intent to transfer ownership of the public water system as part of the construction plan or project phase build-out;
8. Method to ensure provision of information listed in Appendix B, item 4 to subsequent owners; and
9. A disclosure statement signed by the owner setting forth the owner's responsibility to comply with the requirements of this Article and to disclose all information relevant to the operation of the public water system upon transfer of ownership as outlined in Appendix B.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-605. Financial Capacity Requirements

An owner of a new public water system shall submit information for a five-year financial capacity plan, or a financial capacity plan to the end of the build-out phase, whichever is longer, that demonstrates financial capacity and documents or contains all of the information listed in Appendices C and D.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-606. Review, Approval, Denial Process

A. The Department shall review and evaluate technical capacity, based upon the requirements in R18-4-603 and Appendix A.

B. The Department shall review and evaluate managerial capacity, based upon the requirements in R18-4-604 and Appendix A.

C. The Department shall accept a financial determination made by the Arizona Corporation Commission (ACC) as meeting

the financial capacity requirements contained in this Article for a new CWS or new NTNCWS under the jurisdiction of the ACC. The applicant shall submit documentation to the Department that verifies ACC approval of the public water system's financial capacity.

D. The Department shall accept a financial determination as set forth in the certificate of assured water supply from the Arizona Department of Water Resources, Active Management Area Program (ADWR) as meeting the financial capacity requirements contained in this Article for a new CWS or new NTNCWS. The owner shall submit documentation to the Department that verifies ADWR approval of its financial capacity.

E. If a new public water system does not fall under financial review jurisdiction of the ACC or ADWR, the new CWS or new NTNCWS shall submit to the Department for review a completed financial capacity portion of the elementary business plan. The Department shall review and evaluate financial capacity, based upon the requirements in R18-4-605 and Appendices A, C, and D.

F. The Department shall notify an owner of a new public water system in writing of a deficiency in the elementary business plan or approve or deny the elementary business plan within 90 days of a receipt of a complete elementary business plan. The owner shall have 60 days from the date of a notice of deficiency to submit to the Department the information necessary to correct the deficiency in the elementary business plan. If the owner of the new public water system fails to send the requested information so that it is received by the Department within 60 days of the date of the notice of deficiency, the Department shall deny the elementary business plan and return it to the owner with a written explanation for the denial and information on the appeal process.

G. If an owner modifies technical or managerial specifications at any time between the approval to construct and the approval of construction, the owner shall notify the Department of the need to modify the elementary business plan in the technical, managerial, and financial capacity documentation. The Department shall revoke approval of the elementary business plan if the owner fails to notify the Department within 30 days of a modification.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

R18-4-607. Appeals

An owner may appeal denial of an elementary business plan under A.R.S. § 41-1092 et seq.

Historical Note

New Section adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

Appendix A

Elementary Business Plan Checklist

Technical Capacity	Yes	No	N/A
1. Source Adequacy - Does the documentation demonstrate 50 gallons of water per person per day for 100 years or does the system have an Arizona Department of Water Resources Certificate of assured water supply?	_____	_____	_____
2. Source Adequacy - Does the source approval information demonstrate that the source meets drinking water quality standards or have applicable drinking water technologies been described?	_____	_____	_____
3. Infrastructure - Do the design criteria meet the requirements of R18-4-502 through R18-4-509?	_____	_____	_____
4. Treatment - Do the design criteria include treatment technologies approved by ADEQ in 18 A.A.C. 4, Articles 2, 3, and 5?	_____	_____	_____
5. Does the system have a certified operator of the appropriate grade and type?	_____	_____	_____
6. Does the documentation include an elementary business plan containing technical and engineering needs projections for a time period covering day 1 to final build-out or for a five-year time period, which ever is greater?	_____	_____	_____
7. Does the documentation include the proposed water system design specifications and proposed uses including commercial and domestic use phases?	_____	_____	_____
8. Does the documentation include an elementary business plan containing the information on the components used in the design and construction of the system along with the components life span based upon manufacturer's specifications?	_____	_____	_____
9. Does the documentation include an Operations and Maintenance Plan that contains standards that are nationally recognized on all site-specific components, such as American Water Works Association, National Sanitation Foundation, or Underwriter's Laboratory?	_____	_____	_____
10. Does the documentation include an operation and maintenance plan with the manufacturer's specifications on all components used in the construction of the water system?	_____	_____	_____
11. Does the documentation include an operations and maintenance plan and emergency operation plan to address site-specific component replacement or repair protocols based on manufacturer's recommendations or engineer's specifications?	_____	_____	_____
Managerial Capacity	**Yes**	**No**	**N/A**
12. Does the documentation include ownership type?	_____	_____	_____
Select all that apply.			
Sole Proprietor	_____	_____	_____
Major Stockholders	_____	_____	_____
Board of Directors	_____	_____	_____
Cooperative	_____	_____	_____
Government Agency or District	_____	_____	_____
Corporation	_____	_____	_____
Limited Liability Corporation	_____	_____	_____
Partnership	_____	_____	_____
Other_____	_____	_____	_____
13. Does the documentation include name, address, and telephone number of owner?	_____	_____	_____
14. Does the documentation include an organizational chart of owners, management, and staff with their position or job titles?	_____	_____	_____
15. Does the documentation include staff job descriptions and responsibilities?	_____	_____	_____
16. Does the documentation include a capital improvement plan up to the proposed full system build-out or for a five-year projection, whichever is greater?	_____	_____	_____
17. Does the documentation identify the grade and type of certified operator that will be needed to operate the system according to site-specific components?	_____	_____	_____
18. Does the documentation identify the intent to create a CWS or NTNCWS?	_____	_____	_____
19. Does the documentation transfer the ownership of the water system as part of the build-out phase of the project?	_____	_____	_____
20. Does the documentation identify the policies or mechanisms to ensure that all system-specific technical, managerial, and financial information of the water system is transferred to a new owner?	_____	_____	_____
21. Does the documentation include the owner's signed disclosure statement agreeing to comply with the requirements of these Articles and a general disclosure statement agreeing to disclose all information relevant to the operation of the water system to any transferee of ownership? (See Appendix B).	_____	_____	_____

Financial Capacity	Yes	No	N/A
22. Is the system regulated by the Arizona Corporation Commission (ACC) or ADWR? If Yes go to Question 23. If No go to Question 25.	_____	_____	_____
23. Has the system received an approval from the ACC on its fee structure, or ADWR on its financial capacity?	_____	_____	_____
24. Systems regulated by the Arizona Corporation Commission or Department of Water Resources shall provide information required in 22 and 23 for the financial capacity determination review by ADEQ.	_____	_____	_____
25. For New CWSs and NTNCWS NOT regulated by ACC, is all information listed in Appendices C and D included?	_____	_____	_____

Historical Note

Appendix A adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

Appendix B

Drinking Water Capacity Development Statement of Responsibility

Applicant Information:

Name:

Mailing Address

Phone Number: **Fax Number:** **E-mail:**

Statement Information:

1) Name of Water System:_____**PWS ID#**_____

2) Ownership Type (Please check all that apply):

____Sole Proprietor ____Major Stockholders ____Board of Directors
____Cooperative ____Government Agency ____District
____Public Entity ____Corporation ____Limited Liability Corporation
____Other (please explain) _____

3) Name of Owner(s): (Check one) See below Attach a separate sheet if more space is needed

Owner 1:

Owner 2:

Owner 3:

4) Agencies with rules applicable to the Water System: (Please check all that apply)

____Arizona Department of Environmental Quality ____Arizona Corporation Commission
____Arizona Department of Water Resources ____Arizona Department of Real Estate
____Arizona Department of Commerce ____Arizona Department of Agriculture
____Arizona Department of Corrections ____Office of the Fire Marshal
____Arizona Land Department ____Arizona Department of Revenue
____Arizona Department of Transportation ____Maricopa County Environmental Services
____Pima County Department of Environmental Quality ____Environmental Protection Agency Region IX
____Other(s) please specify_____

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5) Statement of Intent (Select one):

____It **IS** the intent of the owner or developer of this NEW CWS or NEW NTNCWS to transfer ownership of the water system. As part of the ownership transfer, it is understood that the owner or developer has a responsibility to disclose and transfer ALL information relevant to the construction and operation of the water system to the new owner.
____It is **NOT** the intent of the owner to transfer ownership of the NEW CWS or NTNCWS within one year of the completion of construction of the water system.

6) Date owner expects to begin operation:

Month_____ Day _____ Year_____

7) Drinking Water Sources used: (Select all that apply)

____Ground Water
____Purchased Ground Water
____Surface Water
____Purchased Surface Water

8) Table of Contents of Systems Elementary Business Plan (Please check one):

____The Table of Contents of the Elementary Business Plan is attached.
____The Table of Contents of the Elementary Business Plan is summarized below.
Summary_____
_____
_____

9) Signature of each current owner: Check if additional signature page is attached.____

I agree to comply with the requirements of 18 A.A.C. 4, Article 6.

Print Name:_____Signature:_____Date:_____

Print Name:_____Signature:_____Date:_____

Print Name:_____Signature:_____Date:_____

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Historical Note

Appendix B adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

Appendix C

Financial Capacity for New CWSs and NTNCWSs

Worksheet 1

Owner:_____

Completed by:_____Date:_____

5-Year Financial Projection	**Year 1 Projection**	**Year 2 Projection**	**Year 3 Projection**	**Year 4 Projection**	**Year 5 Projection**
Enter Year:					
1. Beginning Cash on Hand					
a. Unmetered Water Revenue					
b. Metered Water Revenue					
c. Other Water Revenue					
d. Total Water Revenues (1a thru 1c)					
e. Connection Fees					
f. Interest and Dividend Income					
g. Other Income					
h. **Total Cash Revenues** (1d thru 1g)					
i. Additional Revenue Needed					
j. Loans, Grants or other Cash Injection (please specify)					
2. Total Cash Balance (1h to 1j)					
3. Total Cash Available (1+2)					
4. Operating Expenses					
a. Salaries and wages					
b. Employee Pensions and Benefits					
c. Utilities					
d. Chemicals					
e. Materials and Supplies					
f. Laboratory					
g. Contractual Services					

h. Insurance					
i. Miscellaneous					
j. **Total Operations and Maintenance Expenses (4a thru 4i)**					
k. Replacement Expenditures					
l. **Total Operations and Maintenance expenditures plus Replacement expenditures (4j+4k)**					
m. Loan Principal/Capital Lease Payments					
n. Loan Interest Payments					
o. Capital Purchases (specify):					
5. Total Cash Paid Out (4m thru 4o)					
6. Ending Cash Position (3 - 5)					
7. Number of Customer Accounts					
8. Average Annual User Charge per account (1d/7)					
9. Coverage Ratio (1h-4l)/(4m+4n)					
10. Operating Ratio (1d/4l)					
11. End of Year Operating Cash (6 - 12)					
12. End of Year Reserves					
a. Operating Reserves					
b. Debt Service Reserve					
c. Capital Improvement Reserve					
d. Replacement Reserve					
e. Other					
Total Reserves (12a thru 12e)					

Appendix C (continued)

Arizona Financial Capacity For New

CWSs and NTNCWSs

Definitions for Worksheet 1

5-Year Financial Projection	Year 1 Projection	Year 2 Projection	Year 3 Projection	Year 4 Projection	Year 5 Projection
1. Beginning Cash on Hand	For the current year budget, use the actual cash balance. For all other years, cash on hand should equal item #12 from the previous period.				
a) Unmetered Water Revenue	All cash received or estimated for water supplied to residential, commercial, industrial and public customers where the customer charge is not based on quantity, but is based on other criteria such as diameter of service pipe, room, or foot of frontage.				
b) Metered Water Revenue	All cash received or estimated for water supplied to residential, commercial, industrial, and public customers where the charge is based on quantity of water delivered.				
c) Other water revenues	Other cash received or estimated from sales of water, sales for irrigation, sales for resale, inter-municipal sales, or ad valorem taxes.				
d) Total Water Revenues	Total 1(a) thru 1(c)				
e) Connection Fee	All cash received or estimated for connection of customer service during the year.				
f) Interest and Dividend Income	All cash received or estimated on interest income from securities, loans, notes, and similar instruments, whether the securities are carried as investments or included in sinking or reserve accounts.				
g) Other income	Other revenues collected or estimated during the period (such as disconnection or change in service fees, profit on materials billed to customers, servicing of customer lines, late payment fees, rents, sales of assets, or ad valorem taxes (infrastructure portion).				
h) Total Cash Revenues	**Add 1(d) thru 1(g)**				
i) Additional Revenues Needed	Additional cash needed to cover cash needs.				
j) Loans, Grants or other Cash Injections	Includes loans or grants from financial institutions, inter-municipal loans, state or federal sources.				
2. Total Cash Balance	**Add items 1(h) thru 1(j)**				
3. Total Cash Available	**Add items 1 and 2**				
4. Operating Expenses	Use actual amounts paid when completing the prior year. Estimate the amounts for projected years based on prior year amounts, trends, and other known variables.				
a) Salaries and wages	Cash expenditures made or estimated for salaries, bonuses, and other considerations for work related to the operation and maintenance of the facility, including administration and compensation for officers and directors.				
b) Employee Pensions and Benefits	Paid vacations, paid sick leave, health insurance, unemployment insurance, pension plan, and other similar liabilities.				
c) Utilities	Amounts paid or estimated for all fuel or electrical power.				
d) Chemicals	Amounts paid or estimated for chemicals used in treatment and distribution.				
e) Materials and Supplies	Amounts paid or estimated for materials and supplies used for operation and maintenance of the new public water system other than those under contractual services.				

f) Laboratory	Amounts paid or estimated for laboratory and associated services.
g) Contractual Services	Amounts paid or estimated for outside engineering, accounting, legal, managerial, and other services.
h) Insurance	Amounts paid or estimated for vehicle, liability, worker's compensation, and other insurance associated with the public water system.
i) Miscellaneous	Amounts paid or estimated for all expenses not included elsewhere (such as permit fees, training, and certification fees).
j) Total operation and maintenance expenditures	**Add amounts in lines 4(a) thru 4(i).**
k) Replacement expenditures	Amounts paid or estimated for replacement of equipment to maintain system integrity (capital improvement plan).
l) Total Operations and Maintenance expenditures plus Replacement expenditures	**Add amounts in 4(j) and 4(k)**
m) Loan Principal, Capital Lease or Loan payment	Include cash payments made or estimated for principal and interest on all loans, including vehicle loans and equipment on time payments, and capital lease payments.
n) Loan Interest payments	Include cash payments made or estimated for interest on all loans, including vehicle loans, and equipment on time payments, and capital lease payments.
o) Capital Purchases	Amount of cash outlays or estimates for items such as equipment, building, or vehicle purchases and leasehold improvements that were not a part of the initial design of the water system.
5) Total Cash Paid Out	**Add amounts in 4(m) thru 4(o)**
6) Total Cash Available Minus Expenditures Calculation	**Take Amount in 1 and subtract Amount in 5.** If this amount is positive, there is operating cash left over after all calculated expenditure obligations have been met. If the number is negative, there are more expenses than there are funds available to pay for the expenses to operate the water system.
7) Number of Customer Accounts	Use most recent system data or expected increases.
8) Average User Charge per Customer	**Take amount listed in 1(d) and divide it by amount listed in 7.**
9) Coverage Ratio	**Take amount in 1(h) and subtract the amount in 4(l). Then divide that amount with the sum of 4(m) + 4(n).** The equation looks like this: **[1(h) - 4(l)]) [4(m) + 4(n)]** and measures the sufficiency of net operating profit to cover the debt service requirements of the system. A bond covenant might require the debt service to meet or exceed certain limits.
10) Operating Ratio	**Take amount in 1(d) and divide it by the amount in 4(l). The equation looks like this: 1(d)) 4(l).** This figure measures whether operating revenues are sufficient to cover operation, maintenance, replacement expenses. An operating ratio of 1:0 is the minimum for a self-supporting facility. If there are debt service requirements, the operating ratio would have to be higher.
11) End of Year Operating Cash	All non-reserved cash. **Add amounts from 6 thru 12.**
12) End of Year Reserves	Do not include depreciation as a reserve unless there is actually a designated depreciation reserve containing cash set aside for future expansion.

a) Operating Cash Reserve	Funds set aside to meet cash flow, operating, and seasonal fluctuations.
b) Debt Service Reserve	Funds specifically set aside to retire debt as it is scheduled.
c) Capital Improvement Reserve	Funds specifically set aside to meet long-term objectives for a major facility expansion, improvement, or the construction of a new facility.
d) Replacement Reserves	Funds specifically set aside for the future replacement of equipment needed to maintain the integrity of the facility over the useful life of the equipment.
e) Total End of Year Reserves	**Add amounts 12 (a) thru 12 (d).**

Historical Note

Appendix C adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999 (Supp. 99-4).

Appendix D

Water System Financial Viability Tests

Test 1: Will the proposed water system collect sufficient revenues to meet all of its projected expenses?

Measurements:

a. Total Revenues - Total Expenses = Net Income > 0

b. Total Revenues - One-Time Revenues - Interest Income - Other Income = Operating Revenues

c. Total Expenses - One-Time Expenditures - Debt Service - Capital Outlays = Operating Expenditures

d. Operating Revenues - Operating Expenses = Net Revenues > 0

e. Operating Ratio = Operating Expenses ≤ 1 Operating Revenues

Test 2: Will the proposed water system generate reserves?

The following measurements shall be > 0 at the time submitted:

a. Operating Cash Reserve = $_____

b. Replacement Reserve = $_____

c. Working Capital = Current Assets - Current Liabilities

Test 3: Are the proposed rates reasonable compared to the median household income of the area to be served?

The following measurement shall be:

Average Annual Rates < Median Household Income* x 2.5%.

*The sources of median household income data include the most recent United States Census Bureau (USCB) data collected by the Department or generated by an impartial third party experienced in collecting income data and supplied to the Department by the applicant seeking viability determinations. Acceptable sources of income data, other than USCB data include feasibility studies, engineering reports, market studies, income surveys, or another source or collection methodology approved by the Department.

Historical Note

Appendix D adopted by final rulemaking effective September 23, 1999; the A.A.R. citation was not available at the time of publication and will appear in Supp. 99-4 (Supp. 99-3). Amended by final rulemaking at 5 A.A.R. 4456, effective September 23, 1999; Test 1(e) amended to correct a manifest clerical error (Supp. 99-4).

ARTICLE 7. REPEALED

R18-4-701. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Section R18-4-701 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-702. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Section R18-4-702 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-703. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-703 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-704. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Clarifying words "of Article 1" added to subsection (A)(1) (Supp. 04-1). Section R18-4-703 and Table 1 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-705. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-705 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-706. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-706 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-707. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-707 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-708. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Section R18-4-708 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-709. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Amended by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3). Section R18-4-709 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-710. Repealed

Historical Note
New Section adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Section R18-4-710 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Appendix A. Repealed

Historical Note
New Appendix adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Amended by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix A repealed by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3).

Appendix B. Repealed

Historical Note
New Appendix adopted by final rulemaking at 6 A.A.R. 2019, effective May 10, 2000 (Supp. 00-2). Former Appendix B renumbered to Appendix C; new Appendix B made by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix B repealed by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3).

Appendix C. Repealed

Historical Note
New Appendix C renumbered from Appendix B by final rulemaking at 8 A.A.R. 973, effective February 19, 2002 (Supp. 02-1). Appendix C repealed by final rulemaking at 8 A.A.R. 3046, effective May 1, 2002 (Supp. 02-3).

ARTICLE 8. TECHNICAL ASSISTANCE

R18-4-801. Repealed

Historical Note
New Section made by final rulemaking at 8 A.A.R. 262, effective December 27, 2001 (Supp. 01-4). Section R18-4-801 repealed by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

R18-4-802. Technical Assistance Plan
The Department shall include a technical assistance plan in the capacity development report it publishes annually. The technical assistance plan shall include a description of the types of technical

assistance the Department expects to provide, the sources and uses of technical assistance, and a master priority list.

Historical Note
New Section made by final rulemaking at 8 A.A.R. 262, effective December 27, 2001 (Supp. 01-4).

R18-4-803. Master Priority List

A. Each year the Department shall develop a master priority list that ranks public water systems according to their need for technical assistance.

B. The Department shall rank public water systems on the master priority list based on consideration of the following criteria:
1. Size of population served,
2. Type of public water system,
3. Type of ownership,
4. Water source (surface water or ground water),
5. Participation in the monitoring assistance program,
6. History of major monitoring or reporting deficiencies,
7. History of acute or non-acute MCL violations,
8. History of operation or maintenance violations,
9. Lack of a certified operator,
10. Prior assistance from the Department or the Water Infrastructure Finance Authority within the last five years, and
11. Any or other measurable objective criteria related to the technical, managerial, or financial capacity of a public water system.

C. If all other criteria are equal, the Department shall assign priority to public water systems with the most operation or maintenance violations.

D. The Department shall publish the master priority list annually in the Arizona Administrative Register and hold an oral proceeding to obtain public comment on the master priority list.

Historical Note
New Section made by final rulemaking at 8 A.A.R. 262, effective December 27, 2001 (Supp. 01-4).

R18-4-804. Technical Assistance Awards

A. The Department shall award technical assistance to the public water systems with the highest ranking on the master priority list, as funding permits.

B. The Department may provide technical assistance directly, or the Department may employ a consultant to provide the assistance.

C. If a public water system refuses technical assistance offered by the Department, or the Department determines that a public water system is not able to proceed with technical assistance within the next fiscal year, the Department shall bypass the public water system on the master priority list. The Department shall replace a bypassed public water system with the public water system next in line to receive technical assistance in accordance with the priority criteria in R18-4-803(B).

Historical Note
New Section made by final rulemaking at 8 A.A.R. 262, effective December 27, 2001 (Supp. 01-4).

Arizona General and Specific Statutes for
Title 18, Chapter 4

49-141. Environmental nuisances

A. The director may take action under this section to abate environmental nuisances. As used in this section, an environmental nuisance is the creation or maintenance of a condition in the soil, air or water that causes or threatens to cause harm to the public health or the environment and that is not otherwise subject to regulation under this title. Subject to this limitation, the following conditions may constitute environmental nuisances:
   1. A condition or place in populous areas which constitutes a breeding place for flies, rodents, mosquitoes and other insects which are capable of carrying and transmitting disease-causing organisms to any person or persons.
   2. A place, condition or building which is controlled or operated by any governmental agency, state or local, and which is not maintained in a sanitary condition.
   3. Sewage, human excreta, wastewater, garbage or other organic wastes deposited, stored, discharged or exposed so as to be a potential instrument or medium in the transmission of disease to or between any person or persons.
   4. A vehicle or container which is used in the transportation of garbage or human excreta and which is defective and allows leakage or spillage of contents.
   5. The maintenance of an overflowing septic tank or cesspool, the contents of which may be accessible to flies.
   6. The pollution or contamination of any domestic waters.
   7. The use of the contents of privies, cesspools, or septic tanks or the use of sewage or sewage plant effluents for fertilizing or irrigation purposes for crops or gardens except by specific approval of the department of health services or the department of environmental quality.
   8. The storage, collection, transportation, disposal and reclamation of garbage, trash, rubbish, manure and other objectionable wastes other than as provided and authorized by law and rule.
   9. Water, other than that used by irrigation, industrial or similar systems for nonpotable purposes, which is sold to the public, distributed to the public or used in production, processing, storing, handling, servicing or transportation of food and drink and which is unwholesome, poisonous or contains deleterious or foreign substances or filth or disease-causing substances or organisms.

B. The director may adopt rules that prescribe minimum standards for the prevention and abatement of environmental nuisances. In adopting rules pursuant to this subsection, the director shall incorporate the criteria set forth in section 49-282.06, subsection A and shall ensure that the nuisance is abated so that it will not recur.

49-201. Definitions

In this chapter, unless the context otherwise requires:

1. "Administrator" means the administrator of the United States environmental protection agency.
2. "Aquifer" means a geologic unit that contains sufficient saturated permeable material to yield usable quantities of water to a well or spring.
3. "Best management practices" means those methods, measures or practices to prevent or reduce discharges and includes structural and nonstructural controls and operation and maintenance procedures. Best management practices may be applied before, during and after discharges to reduce or eliminate the introduction of pollutants into receiving waters. Economic, institutional and technical factors shall be considered in developing best management practices.
4. "CERCLA" means the comprehensive environmental response, compensation, and liability act of 1980, as amended (P.L. 96-510; 94 Stat. 2767; 42 United States Code sections 9601 through 9657), commonly known as "superfund".
5. "Clean closure" means implementation of all actions specified in an aquifer protection permit, if any, as closure requirements, as well as elimination, to the greatest degree practicable, of any reasonable

probability of further discharge from the facility and of either exceeding aquifer water quality standards at the applicable point of compliance or, if an aquifer water quality standard is exceeded at the time the permit is issued, causing further degradation of the aquifer at the applicable point of compliance as provided in section 49-243, subsection B, paragraph 3. Clean closure also means postclosure monitoring and maintenance are unnecessary to meet the requirements in an aquifer protection permit.

6. "Clean water act" means the federal water pollution control act amendments of 1972 (P.L. 92-500; 86 Stat. 816; 33 United States Code sections 1251 through 1376), as amended.
7. "Closed facility" means:
   (a) A facility that ceased operation before January 1, 1986, that is not, on August 13, 1986, engaged in the activity for which the facility was designed and that was previously operated and for which there is no intent to resume operation.
   (b) A facility that has been approved as a clean closure by the director.
   (c) A facility at which any postclosure monitoring and maintenance plan, notifications and approvals required in a permit have been completed.
8. Concentrated animal feeding operation" means an animal feeding operation that meets the criteria prescribed in 40 Code of Federal Regulations part 122, appendix B for determining a concentrated animal feeding operation for purposes of 40 Code of Federal Regulations sections 122.23 and 122.24, appendix C.
9. "Department" means the department of environmental quality.
10. "Direct reuse" means the beneficial use of reclaimed water for specific purposes authorized pursuant to section 49-203, subsection A, paragraph 6.
11. "Director" means the director of environmental quality or the director's designee.
12. "Discharge" means the direct or indirect addition of any pollutant to the waters of the state from a facility. For purposes of the aquifer protection permit program prescribed by article 3 of this chapter, discharge means the addition of a pollutant from a facility either directly to an aquifer or to the land surface or the vadose zone in such a manner that there is a reasonable probability that the pollutant will reach an aquifer.
13. "Discharge impact area" means the potential areal extent of pollutant migration, as projected on the land surface, as the result of a discharge from a facility.
14. "Discharge limitation" means any restriction, prohibition, limitation or criteria established by the director, through a rule, permit or order, on quantities, rates, concentrations, combinations, toxicity and characteristics of pollutants.
15. "Environment" means navigable waters, any other surface waters, groundwater, drinking water supply, land surface or subsurface strata or ambient air, within or bordering on this state.
16. "Existing facility" means a facility on which construction began before August 13, 1986 and which is neither a new facility nor a closed facility. For the purposes of this definition, construction on a facility has begun if the facility owner or operator has either:
   (a) Begun, or caused to begin, as part of a continuous on-site construction program any placement, assembly or installation of a building, structure or equipment.
   (b) Entered a binding contractual obligation to purchase a building, structure or equipment which is intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility engineering and design studies, do not constitute a contractual obligation for purposes of this definition.
17. "Facility" means any land, building, installation, structure, equipment, device, conveyance, area, source, activity or practice from which there is, or with reasonable probability may be, a discharge.
18. "Gray water" means wastewater that has been collected separately from a sewage flow and that originates from a clothes washer or a bathroom tub, shower or sink but that does not include wastewater from a kitchen sink, dishwasher or toilet.
19. "Hazardous substance" means:

(a) Any substance designated pursuant to sections 311(b)(2)(A) and 307(a) of the clean water act.
(b) Any element, compound, mixture, solution or substance designated pursuant to section 102 of CERCLA.
(c) Any hazardous waste having the characteristics identified under or listed pursuant to section 49-922.
(d) Any hazardous air pollutant listed under section 112 of the federal clean air act (42 United States Code section 7412).
(e) Any imminently hazardous chemical substance or mixture with respect to which the administrator has taken action pursuant to section 7 of the federal toxic substances control act (15 United States Code section 2606).
(f) Any substance which the director, by rule, either designates as a hazardous substance following the designation of the substance by the administrator under the authority described in subdivisions (a) through (e) of this paragraph or designates as a hazardous substance on the basis of a determination that such substance represents an imminent and substantial endangerment to public health.

20. "Inert material" means broken concrete, asphaltic pavement, manufactured asbestos-containing products, brick, rock, gravel, sand and soil. Inert material also includes material that when subjected to a water leach test that is designed to approximate natural infiltrating waters will not leach substances in concentrations that exceed numeric aquifer water quality standards established pursuant to section 49-223, including overburden and wall rock that is not acid generating, taking into consideration acid neutralization potential, and that has not and will not be subject to mine leaching operations.
21. "Major modification" means a physical change in an existing facility or a change in its method of operation that results in a significant increase or adverse alteration in the characteristics or volume of the pollutants discharged, or the addition of a process or major piece of production equipment, building or structure that is physically separated from the existing operation and that causes a discharge, provided that:
    (a) A modification to a groundwater protection permit facility as defined in section 49-241.01, subsection C that would qualify for an area-wide permit pursuant to section 49-243 consisting of an activity or structure listed in section 49-241, subsection B shall not constitute a major modification solely because of that listing.
    (b) For a groundwater protection permit facility as defined in section 49-241.01, subsection C, a physical expansion that is accomplished by lateral accretion or upward expansion within the pollutant management area of the existing facility or group of facilities shall not constitute a major modification if the accretion or expansion is accomplished through sound engineering practice in a manner compatible with existing facility design, taking into account safety, stability and risk of environmental release. For a facility described in section 49-241.01, subsection C, paragraph 1, expansion of a facility shall conform with the terms and conditions of the applicable permit. For a facility described in section 49-241.01, subsection C, paragraph 2, if the area of the contemplated expansion is not identified in the notice of disposal, the owner or operator of the facility shall submit to the director the information required by section 49-243, subsection A, paragraphs 1, 2, 3 and 7.
22. "Navigable waters" means the waters of the United States as defined by section 502(7) of the clean water act (33 United States Code section 1362(7)).
23. "New facility" means a previously closed facility that resumes operation or a facility on which construction was begun after August 13, 1986 on a site at which no other facility is located or to totally replace the process or production equipment that causes the discharge from an existing facility. A major modification to an existing facility is deemed a new facility to the extent that the criteria in section 49-243, subsection B, paragraph 1 can be practicably applied to such modification. For the purposes of this definition, construction on a facility has begun if the facility owner or operator has either:

(a) Begun, or caused to begin as part of a continuous on-site construction program, any placement, assembly or installation of a building, structure or equipment.
(b) Entered a binding contractual obligation to purchase a building, structure or equipment which is intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility engineering and design studies, do not constitute a contractual obligation for purposes of this definition.

24. "Nonpoint source" means any conveyance which is not a point source from which pollutants are or may be discharged to navigable waters.
25. "On-site wastewater treatment facility" means a conventional septic tank system or alternative system that is installed at a site to treat and dispose of wastewater of predominantly human origin that is generated at that site.
26. "Permit" means a written authorization issued by the director or prescribed by this chapter or in a rule adopted under this chapter stating the conditions and restrictions governing a discharge or governing the construction, operation or modification of a facility.
27. "Person" means an individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the United States government or any federal facility, interstate body or other entity.
28. "Point source" means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged to navigable waters. Point source does not include return flows from irrigated agriculture.
29. "Pollutant" means fluids, contaminants, toxic wastes, toxic pollutants, dredged spoil, solid waste, substances and chemicals, pesticides, herbicides, fertilizers and other agricultural chemicals, incinerator residue, sewage, garbage, sewage sludge, munitions, petroleum products, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and mining, industrial, municipal and agricultural wastes or any other liquid, solid, gaseous or hazardous substances.
30. "Postclosure monitoring and maintenance" means those activities that are conducted after closure notification and that are necessary to:
    (a) Keep the facility in compliance with either the aquifer water quality standards at the applicable point of compliance or, for any aquifer water quality standard that is exceeded at the time the aquifer protection permit is issued, the requirement to prevent the facility from further degrading the aquifer at the applicable point of compliance as provided under section 49-243, subsection B, paragraph 3.
    (b) Verify that the actions or controls specified as closure requirements in an approved closure plan or strategy are routinely inspected and maintained.
    (c) Perform any remedial, mitigative or corrective actions or controls as specified in the aquifer protection permit or perform corrective action as necessary to comply with this paragraph and article 3 of this chapter.
    (d) Meet property use restrictions.
31. "Practicably" means able to be reasonably done from the standpoint of technical practicability and, except for pollutants addressed in section 49-243, subsection I, economically achievable on an industry-wide basis.
32. "Reclaimed water" means water that has been treated or processed by a wastewater treatment plant or an on-site wastewater treatment facility.
33. "Regulated agricultural activity" means the application of nitrogen fertilizer or a concentrated animal feeding operation.
34. "Safe drinking water act" means the federal safe drinking water act, as amended (P.L. 93-523; 88 Stat. 1660; 95-190; 91 Stat. 1393).

35. "Standards" means water quality standards, pretreatment standards and toxicity standards established pursuant to this chapter.
36. "Standards of performance" means performance standards, design standards, best management practices, technologically based standards and other standards, limitations or restrictions established by the director by rule or by permit condition.
37. "Tank" means a stationary device, including a sump, that is constructed of concrete, steel, plastic, fiberglass, or other non-earthen material that provides substantial structural support, and that is designed to contain an accumulation of solid, liquid or gaseous materials.
38. "Toxic pollutant" means a substance that will cause significant adverse reactions if ingested in drinking water. Significant adverse reactions are reactions that may indicate a tendency of a substance or mixture to cause long lasting or irreversible damage to human health.
39. "Trade secret" means information to which all of the following apply:
    (a) A person has taken reasonable measures to protect from disclosure and the person intends to continue to take such measures.
    (b) The information is not, and has not been, reasonably obtainable without the person's consent by other persons, other than governmental bodies, by use of legitimate means, other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding.
    (c) No statute specifically requires disclosure of the information to the public.
    (d) The person has satisfactorily shown that disclosure of the information is likely to cause substantial harm to the business's competitive position.
40. "Vadose zone" means the zone between the ground surface and any aquifer.
41. "Waters of the state" means all waters within the jurisdiction of this state including all perennial or intermittent streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, aquifers, springs, irrigation systems, drainage systems and other bodies or accumulations of surface, underground, natural, artificial, public or private water situated wholly or partly in or bordering on the state.
42. "Well" means a bored, drilled or driven shaft, pit or hole whose depth is greater than its largest surface dimension.

49-331. Definitions

In this article, unless the context otherwise requires:

1. "Department" means the department of environmental quality.
2. "Director" means the director of the department of environmental quality.
3. "Dry well" means a well which is a bored, drilled or driven shaft or hole whose depth is greater than its width and is designed and constructed specifically for the disposal of storm water. Dry wells do not include class 1, class 2, class 3 or class 4 injection wells as defined by the federal underground injection control program (P.L. 93-523, part C), as amended.
4. "Owner" means a person who owns a dry well or a person who owned a dry well immediately before the discontinuation of its use.

49-351. Designation of responsible state agency

A. The department of environmental quality is designated as the responsible agency for this state to take all actions necessary or appropriate to ensure that all potable water distributed or sold to the public through public water systems is free from unwholesome, poisonous, deleterious or other foreign substances and filth or disease causing substances or organisms. All such actions shall be taken at the direction of the director of the department.
B. All state agencies and any local health agencies involved with water quality, at the request of the director, shall provide to the department any assistance requested to ensure that this article is effectuated.

49-352. Classifying systems and certifying personnel; limitation

A. The department shall establish and enforce rules for the classification of systems for potable water and certifying operating personnel according to the skill, knowledge and experience necessary within the classification. The rules shall also provide that operating personnel may be certified on the basis of training and supervision at the place of employment. The department may assess and collect reasonable certification fees to reimburse the cost of certification services, which shall be deposited in the state general fund. Such rules apply to all public water systems involved in the collection, storage, treatment or distribution of potable water. The rules do not apply to systems that are not public water systems including irrigation, industrial or similar systems where the water is used for nonpotable purposes.

B. For the purposes of this article:
   1. A public water system is a water system that:
   (a) Provides water for human consumption through pipes or other constructed conveyances.
   (b) Has at least fifteen service connections or regularly serves an average of at least twenty-five persons daily for at least sixty days a year.
   2. A public water system as described in paragraph 1, subdivisions (a) and (b) includes any collection, treatment, storage and distribution facilities that are under the control of the operator of a public water system and that are used primarily in connection with the system and any collection or pretreatment storage facilities that are not under the control of the operator of a public water system and that are used primarily in connection with a public water system.
   3. A service connection does not include a connection to a system that delivers water by a constructed conveyance other than a pipe, if any of the following applies:
      (a) The water is used exclusively for purposes other than residential uses consisting of drinking, cooking or bathing or other similar uses.
      (b) The department determines that alternative water is provided for residential or similar uses for drinking and cooking and that the water achieves a level of public health protection that is equivalent to the applicable national primary drinking water regulations.
      (c) The department determines that the water that is provided for residential or similar uses for drinking, cooking and bathing is centrally treated or is treated at the point of entry by the water provider, a pass-through entity or the user to achieve the level of public health protection that is equivalent to the applicable national primary drinking water regulations.
   4. An irrigation district in existence before May 18, 1994 and that provides primarily agricultural service through a piped water system with only incidental residential or similar use is not a public water system if the system or the residential or other similar users of the system comply with paragraph 3, subdivision (b) or (c).
   5. Persons who receive water through connections that are not service connections pursuant to paragraph 3 are not included in the computation of the number of persons prescribed by paragraph 1, subdivision (b).

49-353. Duties of director; rules; prohibited lead use

A. The director shall:
   1. Exercise general supervision over all matters related to water quality control of public water systems throughout this state.
   2. Prescribe rules regarding the production, treatment, distribution and testing of potable water by public water systems, except that such rules shall not apply to irrigation, industrial or similar systems where the water is used for nonpotable purposes. The rules shall comply with at least the following:
      (a) The requirements established by the United States environmental protection agency for state primary enforcement responsibility of the safe drinking water act, including the requirements of 40 Code of Federal Regulations parts 141 and 142.
      (b) Require that the plans and specifications for all public water systems, including water treatment plants, distribution systems, distribution system extensions, water treatment

methods and devices and all appurtenances and devices for sale to be used in water supplies and public water systems be submitted with a fee for review to the department. The department, in establishing fees authorized by this section, shall comply with title 41, chapter 6. The department shall not set a fee at more than the department's cost of providing the service for which the fee is charged. State agencies are exempt from all fees imposed pursuant to this section. Monies collected from the fees shall be deposited in the water quality fee fund established by section 49-210. The director may require that plans and specifications for public water systems include programs to meet future needs for drinking water and to supply specified minimum quantities of drinking water. The director shall:

(i) Require that a new public water system demonstrate that the system possesses adequate managerial and financial capacity to operate in compliance with this article and the rules adopted pursuant to this article.

(ii) Accept adequate findings of other public authorities regarding the adequate managerial and financial capacity of a public water system to operate in compliance with this article and the rules adopted pursuant to this article.

(c) Provide that no public water system, including a water treatment plant, distribution system, distribution system extension, water treatment method or device, appurtenance and device used in water supplies or public water systems be constructed, reconstructed, installed or initiated before compliance with the standards and rules has been demonstrated by approval of the plans and specifications by the department. The rules shall prescribe minimum standards for the bacteriological, physical and chemical quality of water distributed through public water systems. The director of environmental quality may consult with the director of the department of health services in developing these standards.

(d) Provide for a simplified administrative procedure for approving structural revisions, additions, extensions or modifications to existing small public water systems for potable water serving a population of three thousand three hundred or fewer persons.

(e) Exempt from the plan review requirements of this paragraph, including any requirements for approval to construct or approval of construction, any structural revisions, additions, extensions or modifications to public water systems which are in compliance with the department's rules applicable to those systems or which are making satisfactory progress towards compliance under a schedule approved by the department if either of the following conditions is satisfied:

(i) The revision, addition, extension or modification has a project cost of twelve thousand five hundred dollars or less.

(ii) The revision, addition, extension or modification is made to a water line which is not for a subdivision requiring plat approval by a city, town or county, and has a project cost of more than twelve thousand five hundred dollars but less than fifty thousand dollars, the design of which is sealed by a professional engineer registered in this state and the construction of which is reviewed for conformance with the design by a professional engineer.

(f) Require a notice of compliance with the conditions for exemption upon the completion of any revisions, additions, extensions or modifications completed in accordance with subdivision (e) of this paragraph.

(g) Provide for the submission of samples at stated intervals.

(h) Provide for inspection and certification of such water supplies.

(i) Provide for the abatement as public nuisances of any premises, equipment, process or device, or public water system that does not comply with the minimum standards and rules.

(j) Provide for records regarding water quality to be kept by owners and operators of the public water systems and that reports regarding water quality be filed with the department.

(k) Provide for appropriate actions to be taken if a water supply does not meet the standards established by the department.

(l) Require a public water system to implement a specified program to control contamination from backflow, backsiphonage or cross connection. All such programs shall be consistent with title 41, chapter 16.

(m) Require that public water systems identify and provide notice to persons that may be affected by lead contamination of their drinking water where such contamination results from either or both of the following:

(i) The lead content in the construction materials of the public water distribution system.

(ii) Corrosivity of the water supply sufficient to cause leaching of lead.

(n) Provide for relief from water testing and monitoring requirements for public water systems qualifying under the federal safe drinking water act (P.L. 93-523; 88 Stat. 1660; P.L. 95-190; 91 Stat. 1393; P.L. 104-182; 110 Stat. 1613), as amended in 1996.

3. Develop and implement strategies to assist public water systems in acquiring and maintaining the technical, managerial and financial capacity to operate in compliance with this article and the rules adopted pursuant to this article. Assistance may be provided based on the needs of the water system.

B. Pipes and pipe fittings having a lead content in excess of eight per cent and solders and flux having a lead content in excess of two-tenths of one per cent shall not be used in the installation or repair of public water systems or of any plumbing in residential or nonresidential facilities providing water for human consumption which are connected to public water systems. This subsection shall not apply to leaded joints necessary for the repair of cast iron pipes.

C. Notwithstanding subsection A, paragraph 2, subdivision (c) of this section, a public water system may construct, reconstruct, install, extend or initiate a water supply system, water treatment plant, distribution system, water treatment method or device, or appurtenance that is used in water supply or in a public water system when the system is out of compliance with standards and rules adopted pursuant to this article only if the construction is necessary to correct the system's noncompliance.

D. The provisions of this section and the rules adopted pursuant to this section apply to public water systems as described by section 49-352, subsection B.

49-353.01. Duties of director; rules; standards; water supply; definition

A. The director shall adopt rules which prescribe minimum standards for the:

1. Sanitary facilities and conditions that shall be maintained by any public water system.
2. Chemicals, additives and drinking water system components that come into contact with drinking water that is used by any domestic or industrial water supply and that is sold or distributed to the public.

B. Chemicals and additives certified as conforming to the national sanitation foundation standards comply with the standards required by this section.

C. In those instances where chemicals, additives and drinking water system components that come into contact with drinking water are essential to the design, construction or operation of the drinking water system and have not been certified by the national sanitation foundation or have national sanitation foundation certification but are not available from more than one source, the standards shall provide for the use of alternatives which include:

1. Chemicals and additives composed entirely of ingredients determined by the environmental protection agency, the food and drug administration or other federal agencies as appropriate for addition to potable water or aqueous food.
2. Chemicals and additives composed entirely of ingredients listed in the national academy of sciences water chemicals codex.
3. Chemicals, additives and drinking water system components consistent with the specifications of the American water works association.
4. Chemicals, additives and drinking water system components that are designed for use in drinking water systems and that are consistent with the specifications of the American society for testing and materials.

5. Drinking water system components that are historically used or in use in drinking water systems consistent with standard practice and that have not been demonstrated during past applications in the United States to contribute to water contamination.

D. Except as identified by the department as an alternative in accordance with this section at or after the time of use or installation, drinking water system components installed and used after January 1, 1993 shall conform to the national sanitation foundation standards.

E. The director of the department of environmental quality may consult with the director of the department of health services in developing the standards prescribed by this section.

F. For the purposes of this section, "drinking water system components" means equipment and materials that are used in a drinking water system, including process media, protective materials, joining and sealing materials, pipes and related products, mechanical devices and mechanical plumbing devices.

49-354. Enforcement; violation; classification; compliance orders; judicial review; injunctive relief; civil administrative penalties; civil penalties

A. A person who violates this article or a rule adopted pursuant to this article is guilty of a class 2 misdemeanor for each violation. In the instance of a continuing violation, each day a violation continues constitutes a separate offense.

B. If the director determines that a person is in violation of this article or a rule adopted pursuant to this article, the director may issue an order requiring compliance immediately or within a specified time period. A compliance order shall state with reasonable specificity the nature of the violation, a time for compliance if applicable and the right to a hearing. The director shall transmit the compliance order to the alleged violator by certified mail, return receipt requested, or by hand delivery. A compliance order becomes final and enforceable in the superior court unless within thirty days after the receipt of the order the alleged violator requests a hearing before an administrative law judge pursuant to title 41, chapter 6, article 10. If a hearing is requested, the order does not become final until the administrative law judge has issued a final decision on the appeal. Except as provided in section 41-1092.08, subsection H, a final administrative decision is subject to judicial review pursuant to title 12, chapter 7, article 6. At the request of the director the attorney general may begin an action in superior court to enforce orders issued under this subsection after an order becomes final.

C. If the director determines that a person is in violation of this article or a rule adopted pursuant to this article to implement the requirements contained in 40 Code of Federal Regulations parts 141 and 142, including the national primary drinking water regulations, the director may issue a compliance order pursuant to subsection B of this section imposing a civil administrative penalty. All penalty amounts shall be calculated as follows:

1. If the violator is a public water system that serves more than ten thousand persons, the director may impose a civil administrative penalty of up to one thousand dollars per day per violation up to ten thousand dollars per violation.
2. If the violator is a public water system that serves five hundred to ten thousand persons, the director may impose a civil administrative penalty that does not exceed five hundred dollars per day per violation up to five thousand dollars per violation.
3. If the violator is a public water system that serves fewer than five hundred persons, the director may impose a civil administrative penalty that does not exceed one hundred dollars per day per violation up to one thousand dollars per violation.

D. When determining the amount of a civil administrative penalty pursuant to subsection C of this section, the director shall consider all of the following:

1. The size of the public water system.
2. Any good faith effort by the public water system to maintain compliance with national primary drinking water regulations.
3. The seriousness of the violation.
4. Any history of violation of the national primary drinking water regulations.
5. Any history of recalcitrance by the violator.

6. Any economic benefit resulting from the violation, as an aggravating factor only.
7. Any other factor deemed relevant.

E. Civil administrative penalties may not be recovered pursuant to subsection C of this section if civil penalties are sought pursuant to subsection G of this section for the same violation.

F. All civil administrative penalties obtained pursuant to subsection C of this section shall be deposited, pursuant to sections 35-146 and 35-147, in the state general fund.

G. In addition to the authority provided in subsection C of this section, the attorney general may, and at the request of the director shall, begin an action in superior court to recover civil penalties in an amount of not more than five hundred dollars per violation per day from any person who violates this article or a rule adopted pursuant to this article. All civil penalties obtained under this subsection shall be deposited, pursuant to sections 35-146 and 35-147, in the state general fund. Civil penalties may not be recovered pursuant to this subsection if civil administrative penalties are sought pursuant to subsection C of this section for the same violation.

H. If the director has reason to believe that a person is in violation of this article or a rule adopted or an order issued pursuant to this article or believes that a person is creating an actual or potential endangerment to the public health because of acts performed in violation of this article or a rule adopted pursuant to this article, the director, through the attorney general, may request a temporary restraining order, a preliminary injunction, a permanent injunction or any other relief necessary to protect the public health.

49-355. Small water systems fund; definition

A. The small water systems fund is established in the department of environmental quality. On designation of the director of environmental quality, the fund may be administered by the water infrastructure finance authority of Arizona. The fund consists of monies appropriated by the legislature. Monies in the fund are exempt from lapsing under section 35-190. Interest earned on monies in the fund shall be credited to the fund.

B. Monies from the small water systems fund shall be used to provide emergency grants to interim operators or interim managers of small water systems that are appointed by the Arizona corporation commission to repair or replace water infrastructure.

C. On recommendation of the Arizona corporation commission the water infrastructure finance authority of Arizona may approve a grant from the fund to an interim operator or an interim manager of a small water system pursuant to this section only if the operator or manager demonstrates that it requires immediate financial assistance to replace, make repairs to or to rehabilitate the public water system infrastructure that is operated by the interim operator or manager in order to correct or avoid an interruption in water service.

D. For the purposes of this section, "small water system" means a public water system that serves five hundred or fewer connections.

49-356. Water systems; designating lead agency; coordinating council

A. The department of environmental quality is designated as the lead agency to review the operations of water systems and the practices of governmental agencies which oversee and regulate them.

B. A water systems coordinating council is established in the department of environmental quality consisting of representatives of at least the following governmental entities and agencies or private water systems:
1. The department of environmental quality.
2. The corporation commission.
3. The state real estate department.
4. The department of water resources.
5. The department of health services.
6. The office of state fire marshal in the department of fire, building and life safety.

7. One representative of the health department of a county having a population exceeding one million five hundred thousand persons according to the most recent United States decennial census.
8. One representative of the health department of a county having a population exceeding five hundred thousand but not exceeding one million five hundred thousand persons according to the most recent United States decennial census.
9. One member who is appointed by the director and who represents county planning and zoning departments.
10. One member who is appointed by the director and who represents a city or town with a population of less than ten thousand.
11. One member who is appointed by the director and who represents investor owned water systems.

C. The determination of the number and appointment of representatives for the departments designated in subsection B, paragraphs 1, 4 and 5 shall be made by the director of the respective departments. The determination of the number and appointment of representatives of the state real estate department shall be made by the real estate commission. The determination of the number and appointment of representatives of the office of state fire marshal shall be made by the state fire marshal. The appointment of representatives under subsection B, paragraphs 7 and 8 shall be made by the director of the department of health services.

D. Additional members may be appointed at the discretion of the council. A representative from the department of environmental quality, selected by the director, shall serve as chairman of the council. The council shall meet at least quarterly and may meet more often to conduct its business.

E. The council shall:
1. Develop public education and information programs for owners, operators and customers of water systems.
2. Identify programs to advise and assist owners and operators of water systems in management, accounting, engineering and other technical areas.
3. Integrate and coordinate information databases among member agencies.
4. Evaluate the statutory and regulatory authority of governmental entities regarding water systems and recommend appropriate changes.
5. Develop any other programs and recommendations which would benefit the owners, operators and customers of water systems and the statutory and regulatory practices of government agencies.
6. Identify sources of funding to accomplish the purposes of this section.
7. Investigate mechanisms to ensure the financial viability of new water systems before they begin operation.

49-357. Joint monitoring and testing

The department may allow water systems that are subject to this article to cooperate in testing for and monitoring water contaminants for compliance with this article if the director determines that the water systems are located in the same general area and that the area is hydrologically connected.

49-358. Water system compliance assistance program

A. The department shall establish a water system compliance assistance program to assist water systems in complying with standards imposed by federal and state law, rules and regulations. The program shall provide information and technical assistance to water systems.

B. The department may contract with a nonprofit organization which provides on-site technical assistance to small water systems and which is dedicated to preserving and enhancing water quality in Arizona.

49-360. Monitoring assistance program for public water systems; monitoring assistance fund; rules

A. The department shall establish a monitoring assistance program to assist public water systems in complying with monitoring requirements under the federal safe drinking water act (P.L. 93-523; 88 Stat. 1660; P.L. 95-190; 91 Stat. 1393; P.L. 104-182; 110 Stat. 1613; 42 United States Code sections 300f through 300j-26), as amended. The program shall provide for the collection, transportation and analysis of baseline samples from public water systems in a frequency sufficient to keep the systems in compliance with the federal safe drinking water act requirements. At a minimum, the program shall include monitoring for the following categories of contaminants:
   1. Volatile organic chemicals.
   2. Synthetic organic chemicals.
   3. Inorganic chemicals except for copper and lead.
   4. Radiochemicals.
B. The department shall contract with one or more private parties or statewide nonprofit organizations representing water systems to implement the monitoring assistance program subject to available funding. Contracts shall be awarded for up to three years, beginning January 1, 1999. Entities with which the department contracts shall:
   1. Provide updated monitoring schedules, developed in conjunction with the department, to participating water systems.
   2. Take samples for participating water systems, allow for certified operators to take samples and train system personnel to take samples.
   3. Assist participating water systems when resampling is required by the federal safe drinking water act.
   4. Assist participating water systems to apply for and qualify for available interim monitoring relief and waivers.
   5. Provide any other on-site technical assistance necessary to help the participating water systems comply with the monitoring requirements of the federal safe drinking water act.
C. Any public water systems serving more than ten thousand persons may elect to participate in the monitoring assistance program subject to the payment of the fees pursuant to subsection F of this section.
D. The department shall utilize licensed environmental laboratories as defined by section 36-495 or laboratories certified or designated by the United States environmental protection agency to analyze samples collected under the monitoring assistance program. The department shall establish specific criteria for measuring contractor qualifications and performance.
E. Each environmental laboratory that the department utilizes pursuant to subsection D of this section shall deliver copies of the analysis results to the water system owner, the monitoring assistance program contractor and the department.
F. The director shall establish fees for the monitoring assistance program to be collected from all public water systems serving up to ten thousand persons. The participating water systems shall remit these fees to the department for deposit in the monitoring assistance fund.
G. The monitoring assistance fund is established consisting of fees collected from participating public water systems pursuant to subsection F of this section. The director shall administer the fund. If the fund has a surplus after execution of the previous year's contract, any surplus in excess of two hundred thousand dollars in any year shall be used to reduce the fee for the subsequent year in a manner consistent with the program invoicing system. Monies in the fund shall be used to pay the monitoring assistance program contractors, the environmental laboratories utilized for the purposes of this section and administrative costs incurred by the department. Monies in the fund are exempt from lapsing pursuant to section 35-190. Interest earned on monies in the fund shall be credited to the fund. The allowable administrative costs of the department are limited to no more than fifteen per cent of monies deposited in the fund annually or one hundred eighty-four thousand dollars, whichever is less. As used in this subsection, administrative costs include only those costs necessary to perform the following:
   1. To assure contractor performance and quality control.

2. Administration of the contracts.
3. Collection of fees as provided in subsection F of this section.
4. Providing direct technical assistance related to the implementation of the monitoring assistance program only to the extent the department's assistance is required by this section.

H. The department shall adopt rules for the monitoring assistance program.

I. Any site visit made pursuant to this section by a monitoring assistance program contractor shall not be regarded as an inspection or investigation. No enforcement actions shall be taken as a result of these site visits except that nothing in this section affects the authority of the department to enforce this article pursuant to section 49-354.

E-3

ARIZONA PEACE OFFICER STANDARDS AND TRAINING BOARD (R-16-0203)

Title 13, Chapter 4, Article 1, General Provisions; Article 2, Correctional Officers

Amend: R13-4-101; R13-4-102; R13-4-103; R13-4-104; R13-4-105; R13-4-106; R13-4-107; R13-4-108; R13-4-109; R13-4-109.01; R13-4-110; R13-4-111; R13-4-112; R13-4-114; R13-4-116 R13-4-117; R13-4-118; R13-4-201; R13-4-202; R13-4-203 R13-4-204; R13-4-205; R13-4-206; R13-4-208

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-3**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Chris Kleminich, Staff Attorney

DATE: January 15, 2016

SUBJECT: **ARIZONA PEACE OFFICER STANDARDS AND TRAINING BOARD (R-16-0203)**
Title 13, Chapter 4, Article 1, General Provisions; Article 2, Correctional Officers

Amend: R13-4-101; R13-4-102; R13-4-103; R13-4-104; R13-4-105; R13-4-106; R13-4-107; R13-4-108; R13-4-109; R13-4-109.01; R13-4-110; R13-4-111; R13-4-112; R13-4-114; R13-4-116 R13-4-117; R13-4-118; R13-4-201; R13-4-202; R13-4-203 R13-4-204; R13-4-205; R13-4-206; R13-4-208

General Comments

Purpose of the Agency and Summary of What the Rulemaking Does

The Arizona Peace Officer Standards and Training Board (Board) establishes standards for selection, recruitment, retention, and training for peace officers and state correctional officers and curriculum standards for law enforcement and state correctional officer training facilities.

This rulemaking seeks to amend all 24 rules in A.A.C. Title 13, Chapter 4, Articles 1 and 2. The Board is amending its rules because of 2011 statutory changes, and in response to a five-year-review report approved by the Council on June 7, 2011.

Article Contents, Including the Subject Matter of Each Rule Affected

Article 1 contains seventeen rules, all of which are amended by this rulemaking, that relate to general provisions. The rules address definitions; internal organization and control of the Board; certification of peace officers; peace officer category restrictions; minimum qualifications for appointment; background investigation requirements; medical requirements; agency records and reports; denial, revocation, suspension, or cancellation of peace officer certified status; restriction of certified peace officer status due to training or qualification

deficiencies; basic training requirements; certification retention requirements; time-frames; minimum course requirements; academy requirements; training expense reimbursements; and hearings and rehearings.

Article 2 contains seven rules, all of which are amended by this rulemaking, that relate to correctional officers. The rules address definitions; uniform minimum standards; background investigations; records and reports; basic training requirements; continuing training, including firearms qualification; and re-employment of state correctional officers.

Year that Each Rule was Last Amended or Newly Made

- July 10, 2006: Sections 105, 110, 111
- March 11, 2006: Sections 101, 112, 114, 116
- January 11, 2003: Sections 103, 107
- July 11, 2002: Sections 102, 104, 106, 108, 109, 109.01, 117, 118, 201, 202, 203, 204, 205, 206, 208

Proposed Action

The following is a non-exhaustive summary of the actions being taken by the Board in this rulemaking:

- Section 101: The definitions section is being updated to reflect amendments to all of the other rules in the article.
- Section 102: The rule is being updated to increase clarity and to provide the Board with additional flexibility in conducting its meetings.
- Section 103: A new subsection (F), which requires open enrollees to obtain appointments from an agency within one year after graduation from a Board-prescribed Peace Officer Basic Course, is being added. Clarifying changes are also being made.
- Section 104: Clarifying changes are being made, including the deletion of all references to “limited correctional peace officers”, as that position no longer exists.
- Section 105: Clarifying changes are being made, related to minimum qualifications for individuals being appointed to, or attending, an academy. One notable change is that “possession” of marijuana or other drugs will be considered in the same way as “use” of marijuana or other drugs.
- Section 106: Clarifying changes are being made.
- Section 107: The rule, related to medical requirements, is largely being rewritten. The amended rule is more concise, and the Board believes that it is simplifying the medical assessment of whether an individual is able to perform the essential functions of a peace officer.
- Section 108: Subsection (A)(3) is being added, under which an agency must submit a report to the Board if a peace officer is convicted of, or pleads no contest to, a felony or misdemeanor in any jurisdiction. Clarifying changes are also being made.
- Section 109: The Board is expanding the criteria under which it may deny certified status or suspend or revoke the certified status of a peace officer. Clarifying changes are also being made.

- Section 109.01: Clarifying changes are being made.
- Section 110: Clarifying changes, related to basic training requirements, are being made.
- Section 111: Subsection (A)(3)(e) is being added, to clarify that the Board may withdraw its confirmation that a continuing training course conducted by an outside provider meets requirements of the basic peace officer course if the Board receives information that the course content does not meet requirements. Clarifying changes are also being made.
- Section 112: Technical and grammatical changes are being made.
- Section 114: Technical and grammatical changes are being made.
- Section 116: Subsection (K), which provides that an academy administrator must ensure that an open enrollee is admitted only after the administrator complies with every requirement of an agency or agency head imposed by R13-4-105, R13-4-106, R13-4-107, and R13-4-108 except for R13-4-106(C)(4), is being added. Clarifying changes are also being made.
- Section 117: Salary is being removed from the list of reimbursable training expenses. Clarifying changes are also being made.
- Section 118: The hearing and rehearing rule is being clarified and expanded.
- Section 201: The definitions section is being updated to reflect amendments to all of the other rules in the article.
- Section 202: Subsection (B) is being added, allowing the Director of the Department of Corrections to petition the Board for a determination that an individual's conduct that would be grounds to deny certification under R13-4-109, constitutes juvenile indiscretion. Clarifying changes are also being made.
- Section 203: Clarifying changes, related to background investigations of applicants, are being made.
- Section 204: Technical and grammatical changes are being made.
- Section 205: Clarifying changes, related to basic training requirements for state correctional officers, are being made.
- Section 206: Subsection (A), requiring cadets or state correctional officers to complete a Board-approved field training program, is being added. Clarifying changes are also being made.
- Section 208: Clarifying changes are being made.

Summary of Reasons for the Proposed Action

The Board states that it is updating its rules so that they are consistent with statute, agency practice, and current rule-writing standards.

Exemption or Request and Approval for Exception from the Moratorium

The Board received an exception from Executive Order 2015-01 on July 29, 2015.

Substantive or Procedural Concerns

None.

1. Are the rules legal, consistent with legislative intent, and within the agency's statutory authority?

Yes. As general and specific authority for the rules, the Board cites to A.R.S. § 41-1822. The Board has authority under A.R.S. § 41-1822(A) to establish standards for appointment and certification of peace officers and standards for peace officer training academies, and has authority under A.R.S. § 41-1822(B) to establish requirements for the Department of Corrections' correctional officers and correctional officer training.

2. Are the rules written in a manner that is clear, concise, and understandable to the general public?

Yes. The rules are clear, concise, and understandable.

3. Does the agency adequately address the comments on the proposed rules and any supplemental proposals?

Yes. The Board received four written comments regarding the rulemaking.

Three commenters noted that R13-4-105(A)(9), which said that an individual attending an academy shall not have illegally possessed marijuana, was inconsistent with the requirement in subsection (B)(1) that indicates that illegal possession, up to 20 times, is consistent with experimentation. The Board agreed with these commenters, and rewrote R13-4-105(A)(9) accordingly: "Not have illegally possessed, ~~sold~~, produced, cultivated, or transported marijuana for sale or sold marijuana."

A fourth commenter asked if the Board, in R13-4-108(A)(3), considered requiring that misdemeanor complaints, that result in deferred prosecutions rather than convictions, also be reported. In addition, the commenter inquired as to whether an agency has the option to submit a report in these situations. The Board's response is that the aforementioned report in R13-4-108(A)(3) is a new requirement, and the Board wanted to minimize any regulatory burden on agencies by focusing only on convictions and pleas. The Board views this report as a first step, and will evaluate its effect going forward.

4. Are the final rules a substantial change, considered as a whole, from the proposed rules and any supplemental proposals?

No. At the request of commenters and Council staff, minor changes were made between the proposed and final rules. As stated above, R13-4-105(A)(9) was amended to read "Not have illegally possessed, ~~sold~~, produced, cultivated, or transported marijuana for sale or sold marijuana." When considering the rules as a whole, the Board and Council staff do not believe that the changes are substantial.

5. Does the preamble disclose a reference to any study relevant to the rules that the agency reviewed and either did or did not rely on in the agency's evaluation of or justification for the rules?

No. The Board indicates that it did not review or rely upon any study for the rulemaking.

6. Are the rules more stringent than corresponding federal law and, if so, is there statutory authority that allows the agency to exceed the requirements of federal law?

No. Though many federal laws apply generally to law enforcement agencies and the work done by peace officers, the Board indicates that no federal laws directly correspond to the rules.

7. Do the rules require a permit or license and if so, does the agency use a general permit or is any exception applicable under A.R.S. § 41-1037?

Yes. The Board certifies individuals as qualified to perform the functions of a peace officer. These certifications are general permits, as they are issued to qualified individuals to conduct activities and practices that are substantially similar in nature.

8. Do the rules establish a new fee or contain a fee increase?

No. The rules do not establish a new fee or contain a fee increase.

9. Conclusion

The Board requests the usual 60-day delayed effective date for the rules, with the exception of Sections 103, 105, 107, 110, and 111. A.R.S. § 41-1823 requires that these rules, which establish a minimum qualification for law enforcement officers, not go into effect until six months after being filed with the Secretary of State. This analyst recommends approval of the rules.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-3**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA PEACE OFFICER STANDARDS AND TRAINING BOARD (R-16-0203)**
Title 13, Chapter 4, Article 1, General Provisions; Article 2, Correctional Officers

Amend: R13-4-101; R13-4-102; R13-4-103; R13-4-104; R13-4-105; R13-4-106; R13-4-107; R13-4-108; R13-4-109; R13-4-109.01; R13-4-110; R13-4-111; R13-4-112; R13-4-114; R13-4-116 R13-4-117; R13-4-118; R13-4-201; R13-4-202; R13-4-203 R13-4-204; R13-4-205; R13-4-206; R13-4-208

I reviewed the economic, small business, and consumer impact statement (EIS) and make the following comments. These comments are made to assist the Council in its review and may be used as the Council determines.

GRRC Economist comments:

The amendments are intended to conform to 2011 statutory changes and to revisions proposed in the Board's 2011 five-year-review report. There are currently 14,604 certified peace officers and 5,807 correctional officers in Arizona who together are employed by 165 law enforcement agencies across the State. The Board conducted 121 hearings in the previous year. As a result of these hearings, the Board revoked the certification of 34 peace officers.

The Board has certified that the Joint Legislative Budget Committee has not been notified because the number of new full-time employees necessary to implement and enforce the rule is zero. Notice of new FTEs is required by A.R.S. § 41-1055(B)(3)(a).

1. **Costs and Benefits for:**

a. The implementing agency:

The amendments will result only in minimal implementation costs for the Board, and will benefit the Board by adding clarity and consistency to the governing rules.

b. Political subdivisions:

The Board indicates that the amendments will have a minimal impact on political subdivisions, as they employ certified police officers. In addition, many political subdivisions employ corrections officers and/or operate training academies. The amendments will benefit political subdivisions by adding clarity and consistency to the governing rules.

c. Businesses:

The amendments do not directly affect businesses. Physicians who are part of a larger practice may voluntarily choose to participate in Board-provided training which would enable the specially trained physician to provide medical examinations for peace officers.

d. Small businesses:

The amendments do not directly affect small businesses. Physicians who are part of a larger practice may voluntarily choose to participate in Board-provided training which would enable the specially trained physician to provide medical examinations for peace officers.

e. Consumers directly affected by the rulemaking:

The public, certified peace officers, applicants to be peace officers, and law enforcement agencies will all benefit from additional clarify and specificity added with the amendments. The Board has not identified any direct costs to consumers or the public.

2. Do the probable benefits outweigh the probable costs?

Based on the information provided, the Board indicates that the benefits to amending the rules in Article 1 and 2 outweigh the probable costs. As discussed above, the amendments reduce the regulatory burden by improving clarity and consistency with statutes.

3. Analysis of methods to reduce the small business impact:

The amendments are designed to have the least impact possible on small businesses while still allowing the Board to fulfill its statutory responsibilities.

4. The probable effect on state revenues:

The Board anticipates that the amendments will have no impact on state revenues.

5. Analysis of any less intrusive or less costly alternative methods:

The Board did not consider other alternatives because it believes that the amendments represent the most cost effective and efficient method of complying the recommendations from the prior five-year-review report and 2011 statutory changes.

6. Whether an analysis was submitted to the agency regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states:

No business competitiveness analysis was submitted to the Board.

7. A description of any data on which a rule is based with an explanation of how the data was obtained and why the data is acceptable data, and the methods used by the agency to evaluate the costs and benefits in the EIS.

The Board indicates that no outside data or studies were used in the development of the amendments.

8. Conclusion:

The submitted economic, small business and consumer impact statement is generally accurate, and contains the information required for compliance with A.R.S. §§ 41-1035, 41-1052(D)(1-3), and 41-1055. This analyst recommends that the rules be approved.

Arizona Peace Officer Standards and Training Board
2643 East University Drive Phoenix, Arizona 85034-6914 Phone (602) 223-2514 FAX (602) 244-0477

December 21, 2015

RECEIVED
DEC 21 2015
GRRC

Ms. Nicole A. Ong, Chair
The Governor's Regulatory Review Council
100 North 15th Avenue, Ste. 402
Phoenix, AZ 85007

Re: A.A.C. Title 13. Public Safety
Chapter 4. Arizona Peace Officer Standards and Training Board

Dear Ms. Ong:

The attached final rule package is submitted for review and approval by the Council. The following information is provided for Council's use in reviewing the rule package:

A. Close of record date: The rulemaking record was closed on December 15, 2015, following a period for public comment and an oral proceeding. This rule package is being submitted within the 120 days provided by A.R.S. § 41-1024(B).

B. Relation of the rulemaking to a five-year-review report: The rulemaking relates to a five-year-review report approved by the Council on June 7, 2011.

C. New fee: The rulemaking does not establish a new fee.

D. Fee increase: The rulemaking does not increase an existing fee.

E. Immediate effective date: An immediate effective date is not requested.

F. Certification regarding studies: I certify that the preamble accurately discloses that the Board did not review or rely on a study in its evaluation of or justification for any rule in this rulemaking.

F. Certification that the preparer of the EIS notified the JLBC of the number of new full-time employees necessary to implement and enforce the rule: I certify that none of the rules in this rulemaking will require a state agency to employ a new full-time employee. No notification was provided to JLBC.

G. List of documents enclosed:
1. Cover letter signed by the Executive Director;
2. Notice of Final Rulemaking including the preamble, table of contents, and rule text;
3. Economic, Small Business, and Consumer Impact Statement; and
4. Written comments from the public.

Sincerely,

Lyle Mann
Executive Director

NOTICE OF FINAL RULEMAKING

TITLE 13. PUBLIC SAFETY

CHAPTER 4. ARIZONA PEACE OFFICER STANDARDS AND TRAINING BOARD

PREAMBLE

1. Articles, Parts, and Sections Affected	**Rulemaking Action**
R13-4-101	Amend
R13-4-102	Amend
R13-4-103	Amend
R13-4-104	Amend
R13-4-105	Amend
R13-4-106	Amend
R13-4-107	Amend
R13-4-108	Amend
R13-4-109	Amend
R13-4-109.01	Amend
R13-4-110	Amend
R13-4-111	Amend
R13-4-112	Amend
R13-4-114	Amend
R13-4-116	Amend
R13-4-117	Amend
R13-4-118	Amend
R13-4-201	Amend
R13-4-202	Amend
R13-4-203	Amend
R13-4-204	Amend
R13-4-205	Amend
R13-4-206	Amend
R13-4-208	Amend

2. Citations to the agency's statutory rulemaking authority to include both the authorizing statute (general) and the implementing statute (specific):

Authorizing statute: A.R.S. § 41-1822 (A) and (B)

Implementing statute: A.R.S. § 41-1822(A)(3)-(A)(4) ; (B)(1)-(B)(3) ; and (C)(1)

3. The effective date for the rules:

As specified under A.R.S. § 41-1032(A) and except as provided under item 3(b), the rules will be effective 60 days after the rule package is filed with the Office of the Secretary of State.

a. If the agency selected a date earlier than the 60-day effective date as specified in A.R.S. § 41-1032(A), include the earlier date and state the reason or reasons the agency selected the earlier effective date as provided in A.R.S. § 41-1032(A)(1) through (5):

Not applicable

b. If the agency selected a date later than the 60-day effective date as specified in A.R.S. § 41-1032(A), include the later date and state the reason or reasons the agency selected the later effective date as provided in A.R.S. § 41-1032(B):

A.R.S. § 41-1823 requires that a rule establishing a minimum qualification for law enforcement officers not go into effect until six months after being filed with the Secretary of State. This provision applies to R13-4-103, R13-4-105, R13-4-107, R13-4-110, and R13-4-111.

4. Citation to all related notices published in the *Register* to include the *Register* as specified in R1-1-409(A) that pertain to the record of the final rulemaking package:

Notice of Rulemaking Docket Opening: 21 A.A.R. 2784, November 13, 2015

Notice of Proposed Rulemaking: 21 A.A.R. 2711, November 13, 2015

5. The agency's contact person who can answer questions about the rulemaking:

Name: Lyle Mann, Executive Director

Address: 2643 E. University
Phoenix, AZ 85034

Telephone: (602) 774-9350

Fax: (602) 244-0477

E-mail: lmann@azpost.gov

Web site: www.azpost.gov

6. An agency's justification and reason why a rule should be made, amended, repealed , or renumbered, to include an explanation about the rulemaking:

In response to a five-year-review report approved by the Council on June 7, 2011, and statutory changes (See Laws 2011, Chapter 303), the Board is updating its rules to make them consistent with statute, agency practice, and current rule-writing standards.

An exemption from Executive Order 2015-01 was provided to the Department by Ted Vogt, Chief of Operations in the Governor's office, in an e-mail dated July 29, 2015.

7. A reference to any study relevant to the rule that the agency reviewed and either relied on or did not rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

The Board did not review or rely on a study in its evaluation of or justification for any rule in this rulemaking.

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. A summary of the economic, small business, and consumer impact:

The Board believes the following changes made in this rulemaking will have minimal economic impact:

- Clarifying that an outside provider of training may provide only continuing training;
- Clarifying that the Board may withdraw its confirmation that a continuing training course conducted by an outside provider meets requirements of the basic peace officer course if the Board receives information that the course content does not meet requirements;
- Adding requirements regarding the time within which an open enrollee must obtain an appointment and additional training requirements if an appointment is not obtained within the specified time;
- Establishing that illegally possessing marijuana, as well as illegally using it, disqualifies an individual from being a peace officer. A definition of illegal is added;
- Simplifying the medical assessment of whether an individual is able to perform the essential functions of the job of peace officer;
- Adding three grounds for denial, suspension, or revocation of certification;
- Adding that certification as a specialty or limited-authority peace officer requires passing relevant portions of the comprehensive final examination;
- Adding a report regarding criminal convictions or pleas by peace officers;
- Adding a requirement that a cadet or state correctional officer complete a Board-approved field training program; and
- Deleting salary as a reimbursable training expense.

The Board made the following changes but believes they will have no economic impact:

- Clarifying the difference between an individual who is appointed to an academy and one who attends an academy as an open enrollee;
- Deleting reference to a limited correctional peace officer because it is a position that no longer exists;
- Specifying conditions under which an agency may seek to have an individual appointed with restrictions;
- Clarifying restrictions on certified status that result from training or qualification deficiencies;

- Clarifying that it is an agency rather than an individual that applies for a waiver of required training; and
- Clarifying the status, training, and time requirements applicable to obtaining a waiver of required training.

10. A description of any changes between the proposed rulemaking, including supplemental notices, and the final rulemaking:

Only minor, non-substantive changes were made between the proposed and final rules.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agency response to comments:

No one attended the oral proceeding the Board held on December 15, 2015. The Board received four written comments regarding the rulemaking. They were from Ray Cota, Leon Wilmot, Terry Young, and David Neuss. The comments and the Board's analysis and response follow. The change made to R13-4-105(A)(9) is clarifying rather than substantive.

COMMENT	ANALYSIS	RESPONSE
R13-4-105(A)(9): This subsection, which says an individual attending an academy shall not have illegally possessed marijuana needs work because it is inconsistent with the requirement at subsection (B)(1), which indicates that illegal possession up to 20 times is consistent with experimentation. Wilmot, Young, and Neuss	The commenter is correct. The Board intended that R13-4-105(A)(9) focus on the sale of marijuana and the illegal possession at issue was illegal possession for sale. The Board amended the subsection to be consistent with the Board's intent.	R13-4-105(A)(9) was rewritten as follows: Not have illegally possessed, ~~sold,~~ produced, cultivated, or transported marijuana for sale or sold marijuana;
R13-4-108(A)(3): Did the Board consider requiring that misdemeanor complaints that result in deferred prosecutions rather than convictions also be reported? Does an agency have an option to submit a report in these situations? Cota	Because this report is a new requirement, the Board wanted to minimize any regulatory burden by focusing only on convictions and pleas. The Board views this report as a first step and will evaluate its effect going forward.	No change

12. All agencies shall list any other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

A.R.S. § 41-1823 requires that a rule establishing a minimum qualification for law enforcement officers not go into effect until six months after being filed with the Secretary of State. This provision applies to R13-4-103, R13-4-105, R13-4-107, R13-4-110, and R13-4-111.

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The Board certifies individuals as qualified to perform the functions of a peace officer. This is a general permit because the activities and practices of peace officers are substantially similar in nature.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

No federal law is directly applicable to the subject of these rules. There are many federal laws that apply to law enforcement agencies and the work done by peace officers. These include general laws such as OSHA, EEOC, and ADA, federal laws regarding crimes, and federal case law regarding law enforcement. The training provided to peace officers is consistent with federal law.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No analysis was submitted.

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rule:

None

14. Whether the rule was previously made, amended, or repealed as an emergency rule. If so, cite the notice published in the *Register* as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

None of the rules was previously made, amended, or repealed as an emergency rule.

15. The full text of the rules follows:

TITLE 13. PUBLIC SAFETY

CHAPTER 4. ARIZONA PEACE OFFICER STANDARDS AND TRAINING BOARD

ARTICLE 1. GENERAL PROVISIONS

R13-4-101. Definitions

R13-4-102. Internal Organization and Control of the Board

R13-4-103. Certification of Peace Officers

R13-4-104. Peace Officer Category Restrictions

R13-4-105. Minimum Qualifications ~~for Appointment~~

R13-4-106. Background Investigation Requirements

R13-4-107. Medical Requirements

R13-4-108. Agency Records and Reports

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ARTICLE 2. CORRECTIONAL OFFICERS

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ARTICLE 1. GENERAL PROVISIONS

R13-4-101. Definitions

In this Article, unless the context otherwise requires:

"Academy" means an entity that conducts the Board-prescribed basic training courses for full-authority, specialty, or limited-authority peace officers.

"Agency" means a law enforcement entity empowered by the state of Arizona.

"Appointment" means the selection by an agency of ~~a person~~ an individual to be a peace officer or peace officer trainee.

"Approved training program" means a course of instruction that meets Board-prescribed course requirements.

"Board" means the Arizona Peace Officer Standards and Training Board.

"Board-trained physician" means an occupational medicine specialist or a physician who has attended a Board course on peace officer job functions.

"Cancellation" means the annulment of certified status without prejudice to reapply for certification.

"Certified" means approved by the Board as being in compliance with A.R.S. Title 41, Chapter 12, Article 8 and this Chapter.

"CFE" means the Board-approved Comprehensive Final Examination that measures mastery of the knowledge and skills taught in the 585-hour full-authority peace officer basic training course.

"Denial" means the permanent refusal of the Board to grant certified status.

"Dangerous drug or narcotic" means a substance identified in A.R.S. § 13-3401 as being a dangerous drug or narcotic drug.

"Experimentation" means the illegal possession or use of marijuana or a dangerous drug or narcotic as described in R13-4-105(B) and (C).

"Full-authority peace officer" means a peace officer whose authority to enforce the laws of this state is not limited by this Chapter.

"Illegal" means in violation of federal or state statute, rule, or regulation.

"Lapse" means the expiration of certified status.

"Limited-authority peace officer" means a peace officer who is certified to perform the duties of a peace officer only in the presence and under the supervision of a full-authority peace officer.

~~"Limited correctional peace officer" means a peace officer who has authority to perform the duties of a peace officer only while employed by and on duty with the Arizona Department of Corrections, and only for the~~

~~purposes of guarding, transporting, or pursuing persons under the jurisdiction of the Arizona Department of Corrections.~~

"Open enrollee" means an individual who is admitted to an academy but is not appointed by an agency.

"Outside provider" means an entity other than the Board or an agency that makes continuing training available to peace officers.

"Peace officer" has the meaning in A.R.S. § 1-215.

"Peace officer trainee" means ~~a person~~ an individual recruited and appointed by an agency to attend an academy.

"Physician" means ~~a person~~ an individual licensed to practice allopathic or osteopathic medicine in this or another state.

"Restriction" means the Board's limitation on duties allowed to be performed by a certified peace officer.

"Revocation" means the permanent withdrawal of certified status.

"Service ammunition" means munitions that perform equivalently in all respects when fired during training or qualification to those carried on duty by a peace officer.

"Service handgun" means the specific handgun or equivalent that a peace officer carries for use on duty.

"Specialty peace officer" means a peace officer whose authority is limited to enforcing specific sections of the Arizona Revised Statutes or Arizona Administrative Code, as specified by the appointing agency's statutory powers and duties.

"Success criteria" means a numerical statement that establishes the performance needed for ~~a person~~ an individual to demonstrate competency in a knowledge, task, or ability required by this Chapter.

"Suspension" means the temporary withdrawal of certified status.

"Termination" means the end of employment or service with an agency as a peace officer through removal, discharge, resignation, retirement, or otherwise.

R13-4-102. Internal Organization and Control of the Board

A. Scheduled meetings. The Chair, in consultation with the Board, shall set regular meeting dates of the Board ~~and shall post notice of each regular meeting according to A.R.S. § 38-431.02~~.

~~**B.** Meeting agenda. Items to be placed on the agenda for Board consideration shall be submitted no later than 20 days before the scheduled meeting.~~

~~**C.**~~**B.** Special meetings. Except in the case of an emergency meeting declared by the Governor or the Chair, the Chair shall give at least five days' written notice of a special meeting to each member of the Board ~~and shall post notice of the special meeting according to A.R.S. § 38-431.02~~.

~~D.~~**C.** Subcommittees. The Chair may appoint subcommittees to inquire into any matter of Board interest. Each subcommittee shall report its findings, conclusions, and recommendations to the Board, in a manner directed by the Chair.

R13-4-103. Certification of Peace Officers

A. Certified status mandatory. ~~A person~~ An individual who is not certified by the Board or whose certified status is inactive shall not function as a peace officer or be assigned the duties of a peace officer by an agency, except as provided in subsection (B).

B. Sheriffs who are elected are exempt from the requirement of certified status.

C. ~~A person~~ An individual shall satisfy the minimum qualifications and training requirements to receive certified status.

D. Peace officer categories. The categories for which certified status may be granted are:

1. Full-authority peace officer,
2. Specialty peace officer, and
3. Limited-authority peace officer~~, and~~

~~4. Limited correctional peace officer~~.

E. Application for certification. ~~A person~~ An individual who seeks to be certified as a peace officer shall make application as follows:

1. Submit to an agency an application that contains all documents required by R13-4-105, R13-4-106(A) and (B), and R13-4-107;
2. Obtain an appointment from ~~an~~ the agency; and
3. Obtain either a certificate of graduation from a Board-prescribed Peace Officer Basic Course or a certificate of successful completion of the waiver of training process prescribed by R13-4-110(D).

F. An open enrollee shall obtain an appointment from an agency within one year after graduating from a Board-prescribed Peace Officer Basic Course.

1. If more than one year but less than three years elapse after graduation from a Board-prescribed Peace Officer Basic Course before an open enrollee obtains an appointment from an agency, the open enrollee shall again take the CFE required under R13-4-110 and satisfactorily perform the practical demonstrations of proficiency in physical conditioning, vehicle operations, pursuit operations, and firearms, including firearms qualifications, as required under R13-4-116(E)(1).
2. If more than three years elapse after graduation from a Board-prescribed Peace Officer Basic Course, an open enrollee shall again graduate from the Board-prescribed Peace Officer Basic Course before obtaining an appointment from an agency.

~~F.~~**G.** ~~Establishment~~ Establishing or ~~enforcement of~~ enforcing qualifications, standards, or training requirements. The Board may waive in whole or in part any provision of this Article upon a finding that the

best interests of the law enforcement profession are served and the public welfare and safety is not jeopardized by the waiver. The Board may place restrictions or requirements on a peace officer as a condition of certified status.

~~G.~~**H.** This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

R13-4-104. Peace Officer Category Restrictions

A. Limited-authority peace officer.

1. A limited-authority peace officer shall be in the presence and under the supervision of a full-authority peace officer when engaged in patrol or investigative activities performed to detect, prevent, or suppress crime, or to enforce criminal or traffic laws of the state, county, or municipality.
2. A limited-authority peace officer may perform the following duties without supervision of a full-authority peace officer:
   a. Directing traffic~~, or assisting with crowd control~~; ~~or~~
   b. Assisting with crowd control; or
   ~~b.~~c. Maintaining public order in the event of riot, insurrection, or disaster.

B. ~~Limited correctional peace officer. A limited correctional peace officer shall not engage in high-speed vehicular pursuit operations.~~ Specialty peace officer. A specialty peace officer has only the authority specified in R13-4-101.

C. Peace officer category change. A certified peace officer may be appointed to another peace officer category within the same agency without the background investigation~~, fingerprint check,~~ and medical examination required in R13-4-105, R13-4-106, and R13-4-107 when these requirements were previously satisfied for appointment if:

1. No more than 30 days have elapsed since the peace officer's termination, and
2. The change is to a category for which the officer is qualified under R13-4-110(A).

D. Inactive status. Certified status of a peace officer becomes inactive upon termination.

E. Lapse of certified status. ~~Certified status of a peace officer lapses after~~ After three consecutive years on inactive status, the certified status of a peace officer lapses.

F. Reinstatement from inactive status. A peace officer whose certified status is inactive and has not lapsed may have certification reinstated if the requirements of R13-4-105 are met for the new appointment, and if appointed:

1. In the same peace officer category, or;
2. As a specialty peace officer from inactive status as a full-authority peace officer.

G. Active status as a specialty~~,~~ or limited-authority~~, or limited correctional~~ peace officer does not prevent lapse of certified status as a full-authority peace officer.

R13-4-105. Minimum Qualifications ~~for Appointment~~

A. Except as provided in subsection (C) or (D), ~~a person~~ an individual shall meet the following minimum qualifications before being appointed to or attending an academy:

1. Be a United States citizen;
2. Be at least 21 years of age~~; except that a person~~. An individual may attend an academy if the ~~person~~ individual will be 21 years of age before graduating;
3. ~~Be~~ Have a diploma from a high school ~~graduate~~ recognized by the department of education of the jurisdiction in which the diploma is issued, ~~or~~ have successfully completed a General Education Development (G.E.D.) examination, or have a degree from an institution of higher education accredited by an agency recognized by the U.S. Department of Education;
4. Undergo a complete background investigation that meets the standards of R13-4-106. ~~A person~~ An individual may begin an academy before the results of the ~~fingerprint check~~ background investigation are returned. However, the academy shall not graduate the ~~person~~ individual and the Board shall not reimburse the academy for the ~~person's~~ individual's training expenses until a qualifying ~~fingerprint check~~ background investigation report ~~return~~ is obtained;
5. Undergo a medical examination that meets the standards of R13-4-107 within one year before appointment. An agency may make a conditional offer of appointment before the medical examination. If the medical examination is conducted more than 180 days before appointment, the ~~person~~ individual shall submit a written statement indicating that the ~~person's~~ individual's medical condition has not changed since the examination;
6. Not have been convicted of a felony or any offense that would be a felony if committed in Arizona;
7. Not have been dishonorably discharged from the United States Armed Forces;
8. Not have been previously denied certified status, have certified status revoked, or have current certified status suspended, or have voluntarily surrendered certified status in lieu of possible disciplinary action in this or any other state if the reason for denial, revocation, suspension, or possible disciplinary action was or would be a violation of R13-4-109(A) if committed in Arizona;
9. Not have illegally possessed, ~~sold,~~ produced, cultivated, or transported marijuana for sale or sold marijuana;
10. Not have illegally possessed or used marijuana for any purpose within the past three years;
11. Not have ever illegally possessed or used marijuana other than for experimentation;
12. Not have ever illegally possessed or used marijuana while employed or appointed as a peace officer;
13. Not have illegally sold, produced, cultivated, or transported for sale a dangerous drug or narcotic;
14. Not have illegally used a dangerous drug or narcotic, other than marijuana, for any purpose within the past seven years;

15. Not have ever illegally used a dangerous drug or narcotic other than for experimentation;
16. Not have ever illegally used a dangerous drug or narcotic while employed or appointed as a peace officer;
17. Not have a pattern of abuse of prescription medication;
18. Undergo a polygraph examination that meets the requirements of R13-4-106, unless prohibited by law;
19. Not have been convicted of or adjudged to have violated traffic regulations governing the movement of vehicles with a frequency within the past three years that indicates a disrespect for traffic laws or a disregard for the safety of ~~other persons~~ others on the highway;
20. Read the code of ethics in subsection ~~(F)~~ (E) and affirm by signature the ~~person's~~ individual ~~understanding of~~ understands and ~~agreement~~ agrees to abide by the code.

B. The illegal possession or use of marijuana, or a dangerous drug or narcotic is presumed to be not for experimentation if:

1. The possession or use of marijuana exceeds a total of 20 times or exceeds five times since the age of 21 years; or
2. The use of any dangerous drug or narcotic, other than marijuana, in any combination exceeds a total of five times, or exceeds one time since the age of 21 years.

C. An agency head who wishes to appoint ~~a person~~ an individual whose illegal possession or use of marijuana or a dangerous drug or narcotic is presumed to be not for experimentation under this Section may petition the Board for a determination that, given the unique circumstances of the ~~person's~~ individual's possession or use, the use was for experimentation. The petition shall:

1. Specify the type of drugs illegally possessed or used, the number of uses, the age at the time of each possession or use, the method by which the information regarding illegal possession or use of drugs came to the agency's attention, and any attempt by the agency head to verify the accuracy of the information; and
2. State the factors the agency head wishes the Board to consider in making its determination. These factors may include:
   a. The duration of possession or use,
   b. The motivation for possession or use,
   c. The time elapsed since the last possession or use,
   d. How the drug was obtained,
   e. How the drug was ingested,
   f. Why the ~~person~~ individual stopped possessing or using the drug, and
   g. Any other factor the agency head believes is relevant to the Board's determination.

D. An agency head who wishes to appoint ~~a person~~ an individual whose conduct is grounds to deny certification under R13-4-109 may petition the Board for a determination that the otherwise disqualifying conduct constitutes juvenile indiscretion. The petition shall:

1. Specify the nature of the conduct, the number of times the conduct occurred, the method by which information regarding the conduct came to the agency's attention, and any attempt by the agency head to verify the accuracy of the information; and
2. Include sufficient information for the Board to determine that all of the following are true:
   a. The conduct occurred when the ~~person~~ individual was less than age 18;
   b. The conduct occurred more than 10 years before application for appointment;
   c. The ~~person~~ individual has consistently exhibited responsible, law-abiding behavior between the time of the conduct and application for appointment;
   d. There is reason to believe that the ~~person's~~ individual's immaturity at the time of the conduct contributed substantially to the conduct;
   e. There is evidence that the ~~person's~~ individual's maturity at the time of application makes reoccurrence of the conduct unlikely; and
   f. The conduct was not so egregious that public trust in the law enforcement profession would be jeopardized if the ~~person~~ individual is certified.
3. If the Board finds that the information submitted is sufficient for the Board to determine that the factors listed in subsection (D)(2) are true, the Board shall determine that the conduct constituted juvenile indiscretion and grant appointment.

~~**E.** For a limited correctional peace officer, previous completion of a background investigation conducted under R13-4-203 and a physical examination conducted under R13-4-202(A)(6) satisfies the requirements of this Section when there has been no interruption of employment by the agency, except that:~~

~~1. The limited correctional peace officer shall submit to a polygraph examination as required by subsection (A)(18); and~~

~~2. The agency shall query the National Crime Information Center/Interstate Identification Index (NCIC/III), and the Arizona Criminal Information Center/Arizona Computerized Criminal History (ACIC/ACCH) and review the returns to determine that the person meets the requirements of this Section.~~

~~**F.**~~**E.** Code of Ethics. Because the people of the state of Arizona confer upon all peace officers the authority and responsibility to safeguard lives and property within constitutional parameters, a peace officer shall commit to the following Code of Ethics and shall affirm the peace officer's commitment by signing the Code.

"I will exercise self-restraint and be constantly mindful of the welfare of others. I will be exemplary in obeying the laws of the land and loyal to the state of Arizona and my agency and its objectives and regulations. Whatever I see or hear of a confidential nature or that is confided to me in my official capacity will be kept secure unless revelation is necessary in the performance of my duty.

I will never take selfish advantage of my position and will not allow my personal feelings, animosities, or friendships to influence my actions or decisions. I will exercise the authority of my office to the best of my ability, with courtesy and vigilance, and without favor, malice, ill will, or compromise. I am a servant

of the people and I recognize my position as a symbol of public faith. I accept it as a public trust to be held so long as I am true to the law and serve the people of Arizona."

~~G.~~**F.** This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

R13-4-106. Background Investigation Requirements

A. Personal history statement. ~~A person~~ An individual who seeks to be appointed shall complete and submit to the appointing agency a personal history statement on a form prescribed by the Board before the start of a background investigation. The Board shall use the ~~history statement shall contain~~ answers to questions contained in the personal history statement ~~that aid in determining~~ to determine whether the ~~person~~ individual is eligible for certified status as a peace officer. The Board shall ensure that the questions ~~shall~~ concern whether the ~~person~~ individual meets the minimum requirements for appointment, has engaged in conduct or a pattern of conduct that would jeopardize the public trust in the law enforcement profession, and is of good moral character.

B. Investigative requirements for the applicant. To assist with the background investigation, ~~a person~~ an individual who seeks to be appointed shall provide the following:

1. Proof of United States citizenship. A copy of a birth certificate, United States passport, or United States naturalization papers is acceptable proof.
2. Proof of education. A copy of a diploma, certificate, or transcript is acceptable proof.
3. Record of any military discharge. A copy of the Military Service Record (DD Form 214, Member 4) is acceptable proof.
4. Personal references. The names and addresses of at least three people who can provide information as personal references.
5. Previous employers or schools attended. The names and addresses of all employers and schools attended within the previous five years.
6. Residence history. ~~A listing of the~~ The complete address for every location ~~that~~ at which the ~~person~~ individual has lived in the last five years.

C. Investigative requirements for the agency. A complete background investigation includes the following inquiries and a review of the returns to determine that the ~~person~~ individual seeking appointment meets the requirements of R13-4-105, and that the ~~person's~~ individual's personal history statement is accurate and truthful. For each ~~person~~ individual seeking to be appointed, the appointing agency shall:

1. Query all the law enforcement agency records in jurisdictions listed in subsections (B)(5) and (B)(6);
2. Query the motor vehicle division driving record from any state listed in subsections (B)(5) and (B)(6);
3. Complete and submit a Fingerprint Card Inventory Sheet to the Federal Bureau of Investigation and Arizona Department of Public Safety for query;

4. Query the National Crime Information Center/Interstate Identification Index (NCIC/III), and the Arizona Criminal Information Center/Arizona Computerized Criminal History (ACIC/ACCH), or the equivalent for each state listed in subsections (B)(5) and (B)(6);
5. Contact all personal references and employers listed in subsections (B)(4) and (B)(5) and document the answers to inquiries concerning whether the ~~person~~ individual meets the standards of this Section;
6. Administer a polygraph examination, unless prohibited by law. The results shall include a detailed report of the pre-test interview and any post-test interview and shall cover responses to all questions that concern minimum standards for appointment as required by R13-4-105, truthfulness on the personal history statement, and the commission of any crimes; and
7. If the results of the background investigation show that the ~~person~~ individual meets minimum qualifications for appointment, has not engaged in conduct or a pattern of conduct that would jeopardize public trust in the law enforcement profession, and is of good moral character, complete a report that attests to those findings.

R13-4-107. Medical Requirements

A. Medical, ~~Categories. The medical categories for certification are:~~ physical, and mental eligibility for certification.

1. ~~Category I. No medical, physical, or mental circumstance exists that limits the person's ability to effectively perform all the duties of a peace officer or creates a reasonable probability of substantial harm to the person or others;~~ An agency may appoint an individual if the individual meets the minimum qualifications in R13-4-105 and is able to perform all the essential functions of the job of peace officer effectively, with or without reasonable accommodation, without creating a reasonable probability of substantial harm to the individual or others.
2. ~~Category II. A medical, physical, or mental circumstance exists that absent a reasonable accommodation by the appointing agency would limit the person's ability to effectively perform all the duties of a peace officer or create a reasonable probability of substantial harm to the person or others; and~~ If an agency wishes to appoint an individual who is unable to perform all the essential functions of the job of peace officer effectively, the agency may seek a restricted certification for the individual. The Board shall determine whether placing restrictions or requirements on the individual as a condition of certification will enable the individual to perform the essential functions authorized within the restriction without creating a reasonable probability of harm to the individual or others.
3. ~~Category III. A medical, physical, or mental circumstance exists that despite reasonable accommodation by the appointing agency limits the person's ability to effectively perform all the duties of a peace officer or creates a reasonable probability of substantial harm to the person or others.~~

B. ~~Eligibility for certified status~~ Medical examination process.

1. ~~Category I. A person in Category I may be appointed if the person meets all other qualifications.~~ Medical history. An individual applying to be appointed shall provide to the examining, board-trained, physician a written statement of the individual's medical history that includes past and present diseases, illnesses, symptoms, conditions, injuries, functionality, surgeries, procedures, immunizations, medications, and psychological information.
2. ~~Category II. If an agency chooses to make the required accommodation and appoint a person in Category II, and the examination was made by a Board-trained physician, the appointment may be made without further action by the Board. However, if the examining physician has not been trained by the Board, a medical review under subsection (H) by a Board-trained physician is required to determine eligibility for certified status. If the Board-trained physician agrees with the finding of the other physician, the appointment may be made without further action by the Board.~~ Medical examination.
   a. The examining, board-trained, physician shall not delegate any part of the medical examination process to another person;
   b. The examining, board-trained, physician shall review the medical history statement and take an additional verbal history from the applicant;
   c. The examining, board-trained, physician shall conduct a physical examination consistent with the standard of care for occupational medical examinations;
   d. The examining, board-trained, physician shall order tests, obtain medical records, and require specialist or functional examinations and evaluations that the examining physician deems necessary to determine the applicant's ability to perform all the essential functions of the job of peace officer;
   e. The examining, board-trained, physician shall make a report to the agency and provide a:
      i. Summary of the examination;
      ii. Description of any significant medical findings;
      iii. Description of any limitation to the ability to perform the essential functions of the job of a peace officer; and
      iv. Medical opinion about the applicant's ability to perform the essential functions of the job of peace officer, with or without reasonable accommodations; and
   f. The examining, board-trained, physician shall consult with the agency, upon request, about the report and the efficacy of any accommodations the agency deems reasonable.

~~3. Category III. If an agency wishes to appoint a person in Category III, the agency shall submit a letter to the Board asking for a determination of eligibility for certification. The letter shall include a report from a Board-trained physician identifying the medical limitations and the proposed accommodations. The Board shall determine the person's eligibility for certified status, based upon whether the appointing agency is able to make reasonable accommodations, and whether by placing restrictions or requirements on the~~

~~person as a condition of certified status under R13-4-103(F), the person is able to perform the duties authorized within the restriction without endangering the person or others.~~

~~**C.** Medical, physical, or mental circumstances in Category II and Category III include:~~

~~1. Angina pectoris;~~

~~2. Asthma;~~

~~3. Cancer - metastatic or leukemia;~~

~~4. Cardiac arrhythmias or murmurs;~~

~~5. Cerebral vascular accident;~~

~~6. Chest pains of unknown origin;~~

~~7. Contagious hepatitis;~~

~~8. Contagious tuberculosis;~~

~~9. Chronic respiratory disease;~~

~~10. Diabetes, insulin dependent or ketosis-prone;~~

~~11. Fixation of major joint;~~

~~12. Hearing not specified in subsection (D);~~

~~13. Herniated lumbar disc;~~

~~14. Hypertension, uncontrolled;~~

~~15. Inguinal hernia;~~

~~16. Liver or renal dysfunction;~~

~~17. Migraine headache;~~

~~18. Myocardial infarction, history of;~~

~~19. Paralysis;~~

~~20. Pilonidal cyst;~~

~~21. Prosthetic device, e.g., limbs, hearing aid, colostomy;~~

~~22. Recurrent dislocation of a major joint;~~

~~23. Schizophrenia or manic depressive psychosis;~~

~~24. Scoliosis greater than 15 degrees;~~

~~25. Seizure disorders;~~

~~26. Current substance abuse;~~

~~27. Valvular heart disease, uncorrected;~~

~~28. Vision not specified in subsection (D) or monocular vision;~~

~~29. Wasting disease, chronic, such as multiple sclerosis, myasthenia gravis, or amyotrophic lateral sclerosis; and~~

~~30. Any other medical, physical, or mental circumstance that the examining physician determines may interfere with the person's ability to function as a peace officer effectively or may create a reasonable probability of substantial harm to the person or others.~~

~~**D.** Vision and hearing. Vision and hearing meeting the following requirements are classified in Category I:~~

~~1. Visual acuity of:~~

~~a. 20/20 or better uncorrected;~~

~~b. 20/20 or better, corrected by spectacles or hard contact lenses, if uncorrected acuity is 20/80 or better. The applicant shall demonstrate satisfactory adaptation to the contact lenses; or~~

~~c. 20/20 or better, corrected by soft contact lenses, if the uncorrected acuity is 20/200 or better. The applicant shall demonstrate satisfactory adaptation to the contact lenses;~~

~~2. Vision capable of distinguishing basic color groups against a favorable background.~~

~~3. Peripheral vision:~~

~~a. That does not reveal scotoma or quadrantonopia; or~~

~~b. In which vision perimeter testing is intact at 170 degrees; and~~

~~4. Uncorrected hearing with no loss greater than 25 db in the 500, 1000, 2000, or 3000 hertz frequencies as measured by an audiometer.~~

~~**E.** Medical history. A person who seeks to be appointed shall supply to the examining physician a statement of the person's medical history that includes past and present diseases, injuries, operations, immunization status, and medications taken.~~

~~**F.** Medical examination. The examining physician shall review the person's medical history and examine the person.~~

~~**G.** Examination report. The examining physician shall record the findings of the medical examination on a form prescribed by the Board. The physician shall indicate whether a medical, physical, or mental circumstance in Category II or III exists, describe how the circumstance affects the person's ability to perform the duties of a peace officer, and specify the type and duration of any treatment required. In all Category II or III cases, the physician shall advise the appointing agency in writing of any limitation on the person's ability to function as a peace officer.~~

~~**H.** Category II and Category III reviews. The diagnosis of a person with a circumstance classified in Category II or Category III by an examining physician who is not Board trained shall be reviewed by a Board trained physician if the agency intends to appoint the person. The Board-trained physician may review prior medical examination reports concerning the person and contact examining physicians to review their findings. If required by the Board-trained physician, an independent medical examination shall be conducted, if the agency wishes to appoint the person, and the person shall be referred to a specialist in the appropriate medical field.~~

~~I. Additional findings. The appointing agency may submit to the Board results of additional examinations or tests, or obtain additional opinions from other licensed physicians.~~

~~J.~~**C.** This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

R13-4-108. Agency Records and Reports

A. Agency reports. On forms prescribed by the Board, an agency shall submit:

1. A report by the agency head attesting that the requirements of R13-4-105 are met for each ~~person~~ individual appointed. The report shall be submitted to the Board before ~~a person~~ an individual attends an academy or performs the duties of a peace officer.
2. A report of the termination of a peace officer. The report shall be submitted to the Board within 15 days of the termination and include:
   a. The nature of the termination and effective date;
   b. A detailed description of any termination for cause; and
   c. A detailed description of, and supporting documentation for, any cause existing for suspension or revocation of certified status.
3. A report that a peace officer was convicted of or pleaded no contest to a misdemeanor or felony in any jurisdiction. The report shall be submitted to the Board within 10 days after the agency knows of the conviction or plea and include court documentation, if available.

B. Agency records. An agency shall make its records available ~~upon the~~ on request ~~of~~ by the Board or staff. The agency shall maintain the following for each ~~person~~ individual for whom certification is sought:

1. An application file that contains all of the information required in R13-4-103(E) and R13-4-106(C) for each ~~person~~ individual appointed for certification as a peace officer;
2. A copy of reports submitted under subsection (A);
3. A signed copy of the affirmation to the Code of Ethics required under R13-4-105;
4. A written report of the results of a completed or partially completed background investigation and all written documentation obtained or recorded under R13-4-106;
5. A completed medical report required under ~~R13-4-105~~ R13-4-107; and
6. A record of all continuing training, proficiency training, and firearms qualifications conducted under R13-4-111.

C. Record retention. An agency shall maintain the records required by this Section as follows:

1. For applicants investigated under R13-4-106 who are not appointed: three years;
2. For applicants who are appointed: five years from the date of termination, except records retained under subsection (B)(6) shall be retained for three years following completion of training~~.~~; and

3. Reports of a polygraph examination given under R13-4-106(C)(6) shall be maintained in accordance with state law.

R13-4-109. Denial, Revocation, Suspension, or Cancellation of Peace Officer Certified Status

A. Causes for denial, suspension, or revocation. The Board may deny certified status or suspend or revoke the certified status of a peace officer for:

1. ~~Failure~~ Failing to satisfy a minimum qualification for appointment listed in R13-4-105;
2. Willfully providing false information in connection with obtaining or reactivating certified status;
3. ~~A~~ Having a medical, physical, or mental disability that substantially limits the ~~person's~~ individual's ability to perform the duties of a peace officer effectively, or that may create a reasonable probability of substantial harm to the ~~person~~ individual or others, for which a reasonable accommodation cannot be made;
4. ~~Violation of~~ Violating a restriction or requirement for certified status imposed under R13-4-109.01, ~~or~~ R13-4-103~~(F)~~ (G), or R13-4-104;
5. ~~The illegal use of~~ Illegally possessing or using marijuana, a dangerous drug, or a narcotic;
6. ~~Unauthorized use of~~ Using or being under the influence of spirituous liquor on duty without authorization;
7. ~~The commission of~~ Committing a felony, an offense that would be a felony if committed in this state, or an offense involving dishonesty, unlawful sexual conduct, or physical violence;
8. ~~Malfeasance~~ Committing malfeasance, misfeasance, or nonfeasance in office;
9. Performing the duties or exercising the authority of a peace officer without having active certified status;
10. Making a false or misleading statement, written or oral, to the Board or its representative;
11. Failing to furnish information in a timely manner to the Board or its representative on request; or

~~9.~~12. ~~Any~~ Engaging in any conduct or pattern of conduct that tends to disrupt, diminish, or otherwise jeopardize public trust in the law enforcement profession.

B. Cause for cancellation. The Board shall cancel the certified status of a peace officer if the Board determines that the ~~person~~ individual was not qualified when certified status was granted, and revocation is not warranted under subsection (A).

C. Cause for mandatory revocation. Upon the receipt of a certified copy of a judgment of a felony conviction of a peace officer, the Board shall revoke certified status of the peace officer.

D. Action by the Board. Upon receipt of information that cause exists to deny certification, or to cancel, suspend, or revoke the certified status of a peace officer, the Board shall determine whether ~~action is~~ to ~~be initiated~~ initiate action regarding the retention of certified status. The Board may conduct additional inquiries or investigations to obtain sufficient information to make a fair determination.

E. Notice of action. The Board shall notify the affected ~~person~~ individual of Board action to initiate proceedings regarding certified status for a cause listed under subsection (A) or (B). The notice shall be served as required by A.R. S. § 41-1092.04~~,~~ and specify the cause for the action. Within 30 days ~~of delivery~~ after receiving the notice, the ~~person~~ individual named in the notice shall advise the Board or its staff in writing whether a hearing is requested. Failure to file a written request for hearing at the Board offices within 30 days ~~of service of~~ after receiving the notice constitutes a waiver of the right to a hearing.

F. Effect of agency action. Action by an agency or a decision resulting from an appeal of that action does not preclude action by the Board to deny, cancel, suspend, or revoke the certified status of a peace officer.

R13-4-109.01. Restriction of Certified Peace Officer Status: Training or Qualification Deficiencies

A. Restricted status. The Board shall restrict certified status if a peace officer fails to satisfy the requirements of R13-4-111.

1. The Board shall consider reports of training or qualification deficiencies at a regularly scheduled public meeting and provide a peace officer alleged to have a training or qualification deficiency the opportunity to be heard without referral to an independent hearing officer. ~~The issue at~~ At the public meeting, the Board shall ~~be restricted to~~ determine only whether the peace officer has successfully completed the required training or qualification and can produce documentation to verify it.
2. ~~A~~ The Board shall leave a restriction ~~shall remain~~ in effect until the training or qualification requirement is met and the peace officer files written verification of the training or qualification with the Board.
3. The Board shall provide notice of ~~action and hearing,~~ restriction or reinstatement following a restriction under this Section by regular mail to the peace officer at the employing agency address. The Board shall provide a copy of the restriction or reinstatement notice by regular mail to the agency head.

B. Firearms qualification. If a peace officer fails to satisfy R13-4-111(C), the peace officer shall not carry or use a firearm on duty.

C. Continuing and proficiency training. If a peace officer fails to satisfy R13-4-111(A) or (B), the peace officer shall not engage in enforcement duties, carry a firearm, wear or display a badge, wear a uniform, make arrests, perform patrol functions, or operate a marked police vehicle.

R13-4-110. Basic Training Requirements

A. Required training for certified status. The Board shall not certify and ~~a person~~ an individual shall not perform the duties of a peace officer until the ~~person~~ individual successfully completes basic training as follows:

1. To be certified as a full-authority peace officer, ~~a person~~ an individual shall complete the 585-hour full-authority peace officer basic training course, specified in R13-4-116, at an academy and pass the CFE.
   a. Board staff shall administer the CFE.

b. The Board shall ensure that the CFE is administered during the final two weeks of the full-authority peace officer basic training course.

c. ~~A person~~ An individual passes the CFE by achieving a score of at least 70 percent on each of the three blocks of the CFE when each block is scored separately.

d. ~~A person~~ An individual who fails one or more blocks of the CFE may retake the failed block one time before the ~~person~~ individual is scheduled to graduate from the academy.

e. ~~A person~~ An individual who fails a retake of a block of the CFE, as described in subsection (A)(1)(d), may retake the failed block once more within 60 days from the original testing date if the ~~person~~ individual remains appointed by the original appointing agency or enrolled in the academy.

f. ~~A person~~ An individual who fails a second retake of a block of the CFE, as described in subsection (A)(1)(e), may pursue certification only by repeating the 585-hour full-authority peace officer basic training course.

g. An agency head is not required to continue to appoint ~~a person~~ an individual during the 60 days permitted for a second retake of a failed block of the CFE, as described in subsection (A)(1)(e).

2. To be certified as a specialty peace officer, ~~a person~~ an individual shall complete a Board-prescribed specialty peace officer basic training course or the 585-hour full-authority peace officer basic training course, specified in R13-4-116, at an academy and pass blocks of the CFE prescribed under subsection (A)(1) that are relevant to the duties of a specialty peace officer.

3. To be certified as a limited-authority peace officer, ~~a person~~ an individual shall complete a Board-prescribed limited-authority peace officer basic training course or the 585-hour full-authority peace officer basic training course, specified in R13-4-116, at an academy and pass blocks of the CFE prescribed under subsection (A)(1) that are relevant to the duties of a limited-authority peace officer.

~~4. To be certified as a limited correctional peace officer, a person shall complete the correctional officer basic training course specified in R13-4-205 and the 48-hour limited correctional peace officer supplement course specified in R13-4-116, at the Arizona correctional officer training academy.~~

B. Exceptions. The training requirement in subsection (A) is waived when an agency uses ~~a person~~ an individual during a:

1. Riot, insurrection, disaster, or other event that exhausts the peace officer resources of the agency and the ~~person~~ individual is attending an academy; or

2. Field training program that is a component of a basic training program at an academy, and the ~~person~~ individual is under the direct supervision and control of a certified peace officer.

C. Firearms training required.

~~1.~~ Unless otherwise specified in this Section, a peace officer shall complete the firearms qualification courses required in R13-4-116(E) before the peace officer carries a firearm in the course of duty.

~~2. Before carrying a firearm in the course of duty, a limited correctional peace officer shall:~~

~~a. Meet the requirements of R13-4-205, and~~

~~b. Complete a night-time firearms qualification shoot based on the course of fire, as described in R13-4-205.~~

D. Waiver of required training. ~~A person~~ An agency, on behalf of an individual, may apply to the Board for a waiver of required training if the ~~person's~~ individual's certified status is lapsed or the ~~person~~ individual has functioned in the capacity of a peace officer in another state or for a federal law enforcement agency. The Board shall grant a complete or partial waiver of required training if the Board determines that the best interests of the law enforcement profession are served, the public welfare and safety are not jeopardized, and:

1. The appointing agency submits to the Board written verification of the ~~person's~~ individual's previous experience and training on a form prescribed by the Board;
2. The ~~person~~ individual meets the minimum qualifications listed in R13-4-105;
3. The ~~person~~ individual complies with the requirements of R13-4-103(E)(1);
4. The appointing agency complies with the requirements of R13-4-106(C);
5. The ~~person~~ individual successfully completes an examination measuring the ~~person's~~ individual's comprehension of the full-authority peace officer basic training course as follows:
   a. If ~~during the last three years,~~ the ~~person~~ individual has at least two years of active-status experience as a peace officer in another state or for a federal law enforcement agency during the last three years, has been on inactive status for no more than one year, and ~~the person~~ submits to the Board basic training and in-service training records that the Board determines demonstrate substantial comparability to Arizona's full-authority peace officer basic training course, the ~~person~~ individual shall pass ~~the portions~~ blocks II and IV of the CFE ~~covering legal and liability issues specific to Arizona~~;
   b. If the ~~person's~~ individual's certification is lapsed, the ~~person~~ individual shall pass all blocks of the CFE; ~~or~~
   c. If the ~~person's~~ individual's out-of-state or federal law enforcement experience does not meet the criterion in subsection (D)(5)(a), but the Board determines that the ~~person's~~ individual's basic training and in-service training records demonstrate substantial comparability to Arizona's full-authority peace officer basic training course, the ~~person~~ individual shall pass all blocks of the CFE; and
   d. The provisions in subsections (A)(1)(c) through (f) apply to this subsection; and
6. In addition to the examination required under subsection (D)(5), the ~~person~~ individual satisfactorily performs the practical demonstrations of proficiency in physical conditioning, vehicle operations, pursuit operations, and firearms, including firearms qualifications, as required under R13-4-116(E)(1).

E. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

R13-4-111. Certification Retention Requirements

A. Continuing training required.

1. The following continuing training standards apply for a peace officer to retain certification:
   a. A full-authority peace officer shall complete eight hours of continuing training each year beginning January 1~~,~~ following the date the officer is certified.
   b. A specialty~~,~~ or limited-authority~~, or limited correctional~~ peace officer shall complete eight hours of continuing training every three years beginning January 1~~,~~ following the date the officer is certified.
2. Continuing training course standards for peace officers. The provider of a continuing training course for peace officers shall ensure that:
   a. The course curriculum consists of advanced or remedial instruction on one or more of the topic areas specified in R13-4-116(E)(1);
   b. The instructor meets the requirements of R13-4-114(A)(2)(a) or (b);
   c. An attendance verification certificate, which includes a statement that the provider believes the course meets the requirements of this Section, is given to each attendee for audit purposes;
   d. If the training provider is an agency, an attendance roster and lesson plan or other information sufficient to determine compliance with this Section is made available upon request by the Board for Board audit;
   e. If the training provider is an outside provider that does not seek confirmation that the course meets the requirements under subsection (A)(3)(c), a copy of the lesson plan or other information sufficient to determine compliance with this Section is given to each attendee; and
   f. If the training provider is an outside provider that seeks and receives confirmation under subsection (A)(3)(c), a copy of the Board's written confirmation is distributed to each attendee.
3. Training providers. Courses of continuing training may be conducted by the Board, an agency, or an outside provider.
   a. All Board-provided continuing training courses meet the requirements of this Section.
   b. Agency-provided continuing training courses meet the requirements of this Section if all the requirements of subsection (A)(2) are met.
   c. Outside-provider continuing training courses meet the requirements of this Section if all the requirements of subsection (A)(2) are met. The Board shall inform an outside provider in writing whether a continuing training course meets these requirements if a course package is submitted to the Board, before the training is conducted, that includes:
      i. A description of the training course that allows the Board to determine whether the course contains advanced or remedial instruction on one or more of the topic areas specified in R13-4-116(E)(1);

ii. The name of the ~~person~~ individual, or if applicable, the institution or organization, providing the training with sufficient information to allow the Board to determine whether the requirements of R13-4-114(A)(2)(a) or (b) are met;

iii. A course schedule listing the number of instructional hours; and

iv. An attestation that the outside provider shall, upon request by the Board, make the lesson plan or other information sufficient to determine compliance with this Section available for Board audit, and shall ensure that the requirement of subsection (A)(2)(b) is met.

d. The Board's confirmation that a continuing training course conducted by an outside provider meets the requirements of this Section is not an evaluation of the content of the course. Rather, confirmation indicates only that the topic of the course is consistent with R13-4-116(E)(1). Confirmation is effective as long as the information submitted to the Board under subsection (A)(3)(c) is unchanged.

e. The Board shall withdraw confirmation that a continuing training course conducted by an outside provider meets the requirements of this Section if the Board receives information that the course content conflicts with the basic peace officer course content and the Board finds that the conflict creates an issue of public safety, liability, or ethics.

~~4. A limited correctional peace officer satisfies the requirements of this Section by obtaining training that is:~~

~~a. Approved under R13-4-206,~~

~~b. Provided by an instructor who meets the requirements of R13-4-205(C)(5), and~~

~~c. On a topic area listed in R13-4-116(E)(4).~~

~~5.~~4. Required records. A peace officer shall provide to the appointing agency a copy of all documents provided to the peace officer under subsection (A)(2)(c), (A)(2)(e), or (A)(2)(f). The appointing agency shall maintain the documents and make them available, upon request by the Board, for Board audit.

B. Proficiency training required.

1. To retain certification, a peace officer who is not in a supervisory position within the peace officer's appointing agency shall complete eight hours of proficiency training every three years beginning January 1, following the date the peace officer is certified.

2. Proficiency training course standards. The provider of a proficiency training course for peace officers shall ensure that:

a. The training requires physical demonstration of one or more performance objectives included in the 585-hour full-authority peace officer basic training course under R13-4-116 and demonstration of the use of judgment in the application of the physical act;

b. The curriculum consists of advanced or remedial instruction on one or more of the following topic areas:

i. ~~Defensive~~ Arrest and control tactics ~~and impact weapons~~,

ii. Tactical firearms (not the annual firearms qualification required under this Section),

iii. Emergency vehicle operations,

iv. Pursuit operations,

v. First aid and emergency care,

vi. Physical conditioning, and

vii. High-risk stops;

c. The instructor meets the requirements of R13-4-114(A)(2)(c);

d. An attendance verification certificate, which includes a statement that the provider believes the course meets the requirements of this Section, is given to each attendee for audit purposes; and

e. If the training provider is an agency, an attendance roster and lesson plan or other information sufficient to determine compliance with this Section is made available upon request by the Board for Board audit~~;~~

~~f. If the training provider is an outside provider that does not seek confirmation under subsection (B)(3)(c) that the course meets the requirements of this Section, a copy of the lesson plan or other information sufficient to determine compliance with this Section is given to each attendee; and~~

~~g. If the training provider is an outside provider that seeks and receives confirmation under subsection (B)(3)(c), a copy of the Board's written confirmation is given to each attendee~~.

3. Training providers. ~~Proficiency~~ Courses that qualify for proficiency training ~~courses~~ credit may be conducted by the Board~~,~~ or an agency~~, or an outside provider~~.

a. All Board-provided proficiency training courses meet the requirements of this Section.

b. Agency-provided proficiency training courses meet the requirements of this Section if all the requirements of subsection (B)(2) are met.

~~c. Outside-provider proficiency training courses meet the requirements of this Section if all the requirements of subsection (B)(2) are met. The Board shall inform an outside provider in writing whether a proficiency training course meets these requirements if a course package is submitted to the Board, before the training is conducted, that includes:~~

~~i. A description of the training course that allows the Board to determine whether the course contains advanced or remedial instruction on one or more of the topic areas specified in subsection (B)(2);~~

~~ii. The name of the person, or if applicable, the institution or organization, providing the training with sufficient information to allow the Board to determine whether the requirements of R13-4-114(A)(2)(c) are met;~~

~~iii. A course schedule listing the number of instructional hours; and~~

~~iv. An attestation that the outside provider shall, upon request by the Board, make the lesson plan and other information sufficient to determine compliance with this Section available for Board audit, and shall ensure that the requirement of subsection (B)(2)(d) is met.~~

~~d. The Board's confirmation that a proficiency training course conducted by an outside provider meets the requirements of this Section is effective as long as the information submitted to the Board under subsection (B)(3)(c) is unchanged.~~

~~4. A limited correctional peace officer satisfies the requirements of this Section by obtaining training that is:~~

~~a. Approved under R13-4-206,~~

~~b. Provided by an instructor who meets the requirements of R13-4-205(C), and~~

~~c. On a topic area listed in subsection (B)(2)(b) except (B)(2)(b)(iv).~~

~~5.~~4. Required records. A peace officer shall provide to the appointing agency a copy of ~~all documents~~ the document provided to the peace officer under subsection (B)(2)(d)~~, (B)(2)(f) or (B)(2)(g)~~. The appointing agency shall maintain and make the ~~documents~~ document ~~and make them~~ available, upon request by the Board, for Board audit.

C. Firearms qualification required. A peace officer authorized to carry a firearm shall qualify to continue to be authorized to carry a firearm each year beginning January 1 following certification by completing a Board-prescribed firearms qualification course, using a service handgun and service ammunition, and a Board-prescribed target identification and judgment course.

1. Firearms qualification course standards.
   a. A firearms qualification course is a course:
      i. Prescribed under R13-4-116(E)(1), or
      ii. Determined by the Board to measure firearms competency at least as accurately as courses prescribed under R13-4-116(E)(1).
   b. The provider of a firearms qualification course shall ensure that the course includes:
      i. A timed accuracy component;
      ii. A type and style of target that is equal to, or more difficult than, targets used in a course prescribed under R13-4-116(E)(1); and
      iii. A success criterion that is equal to, or more difficult than, criteria used in a course prescribed under R13-4-116(E)(1).
2. Firearms target identification and judgment course standards.
   a. A firearms target identification and judgment course is a course:
      i. Prescribed under R13-4-116(E)(1), or
      ii. Determined by the Board to measure target identification and judgment competency at least as accurately as courses prescribed under R13-4-116(E)(1).
   b. The provider of a firearms target identification and judgment course shall ensure that the course includes:
      i. A timed accuracy component;

ii. A type and style of target discrimination test that is equal to, or more difficult than, those used in a course prescribed under R13-4-116(E)(1); and

iii. A success criterion that is equal to, or more difficult than, criteria used in a course prescribed under R13-4-116(E)(1).

3. The provider of a firearms qualification or firearms target identification and judgment course shall ensure that the course is taught by a firearms instructor who meets the requirements of R13-4-114(A)(2)(c).

D. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

R13-4-112. ~~Time-frames~~ Time Frames

A. For the purposes of A.R.S. § 41-1073, the Board establishes the following ~~time-frames~~ time frames for peace officer certification:

1. Administrative completeness review ~~time-frame~~ time frame: 90 days.
2. Substantive review ~~time-frame~~ time frame: 180 days.
3. Overall ~~time-frame~~ time frame: 270 days.

B. The administrative completeness review ~~time-frame~~ time frame begins on the date the Board receives the report required by R13-4-108(A)(1) from an appointing agency.

1. Within 90 days, the Board shall review the report and issue to the appointing agency a ~~statement~~ notice of administrative completeness or a notice of administrative ~~deficiencies~~ deficiency that lists each document or item of information establishing compliance with R13-4-105 that is missing.
2. If the Board issues a notice of administrative deficiency, the appointing agency shall make the missing documents and information available to the Board within 90 days of the date of the notice. The administrative completeness review ~~time-frame~~ time frame is suspended from the date of the deficiency notice until the date the missing documents and information are made available to the Board.
3. If the appointing agency fails to make available all missing documents and information within the 90 days provided, the Board shall close the applicant's file. An applicant whose file is closed and who wants to be certified shall apply again under R13-4-103.
4. When the file is administratively complete, the Board shall provide written notice of administrative completeness to the appointing agency.

C. The substantive review ~~time-frame~~ time frame begins on the date the Board issues the notice of administrative completeness.

1. During the substantive review ~~time-frame~~ time frame, the Board may make one comprehensive written request for additional information.
2. The appointing agency shall make available to the Board the additional information identified in the request for additional information within 60 days. The ~~time-frame~~ time frame for the Board to finish the

substantive review of the application is suspended from the date of the request for additional information until the additional information is made available to the Board.

3. If the appointing agency fails to make available the additional information requested within the 60 days provided, the Board shall close the applicant's file. An applicant whose file is closed and who wants to be certified shall apply again under R13-4-103.
4. When the substantive review is complete, the Board shall grant or deny certification.

R13-4-114. Minimum Course Requirements

A. Instructors. An academy administrator or agency head shall ensure that only an instructor who meets the requirements of this Section facilitates a Board-prescribed course.

1. Instructor classifications.
   a. General instructor. ~~A person~~ An individual qualified to teach topics not requiring a proficiency instructor under subsection (A)(1)(c).
   b. Specialist instructor. ~~A person~~ An individual, other than an Arizona peace officer, qualified to teach a topic in which the instructor has special expertise but who does not qualify for general instructor status.
   c. Proficiency instructor. ~~A person~~ An individual qualified to teach a topic area listed in R13-4-111(B)(2)(b).
2. Instructor qualification standards.
   a. A general instructor shall meet the requirements of subsections (A)(2)(a)(i) and (A)(2)(a)(ii) and either the requirement of subsection (A)(2)(a)(iii) or (A)(2)(a)(iv):
      i. Have two ~~years~~ years' experience as a certified peace officer;
      ii. Maintain instructional competency;
      iii. Successfully complete a Board-sponsored instructor training course or an instructor training course that contains all of the performance objectives and demonstrations of the Board-sponsored instructor course;
      iv. Possess a community college or university teaching certificate.
   b. A specialist instructor shall meet the requirements of subsections (A)(2)(b)(i) and (A)(2)(b)(ii) and either subsection (A)(2)(b)(iii) or subsections (A)(2)(b)(iv) and (A)(2)(b)(v):
      i. Be nominated by an agency head or the administrator of an academy authorized to provide a peace officer basic training course;
      ii. Maintain instructional competency;
      iii. Possess a professional license or certification other than a peace officer certification that relates to the topics to be taught;

iv. Provide documentation to the agency head or academy administrator for forwarding to the Board that demonstrates the expertise and ability to enhance peace officer training in a special field;

v. Possess a community college or university teaching certificate.

c. A proficiency instructor shall meet the requirements of subsections (A)(2)(c)(i) and (A)(2)(c)(ii) and either subsection (A)(2)(c)(iii) or (A)(2)(c)(iv):

i. Meet the requirements for general instructor;

ii. Maintain instructional competency;

iii. Successfully complete a proficiency instructor course in a topic area listed in R13-4-111(B)(2)(b) that includes a competency assessment to instruct in that area within the 585-hour full-authority peace officer basic training course listed in R13-4-116(E);

iv. Complete a form prescribed by the Board that documents advanced training and experience in the topic area including a competency assessment to instruct in that area within the 585-hour full-authority peace officer basic training course listed in R13-4-116(E);

d. A proficiency instructor shall meet the requirements of subsection (A)(2)(c) separately for each topic area listed in R13-4-111(B)(2)(b) for which the proficiency instructor seeks qualification.

3. Instructional competency. An academy administrator or an agency head shall immediately notify the Board in writing of any instructor:

a. Who jeopardizes the safety of students or the public,

b. Whose instruction violates acceptable training standards,

c. Who is grossly deficient in performance as an instructor, or

d. Who is a proficiency instructor and fails to complete satisfactorily the competency assessment to instruct in the instructor's topic area within the 585-hour full-authority peace officer basic training course.

4. If the Board determines that an instructor fails to comply with the provisions of this Section, has an instructional deficiency, or fails to maintain proficiency, any course facilitated by the instructor does not meet the requirements of this Section.

B. Curriculum standards. An academy administrator or agency head shall ensure that the curriculum for a Board-prescribed course meets the following standards:

1. Curriculum.

a. Curriculum development employs valid, job-based performance objectives and learning activities, and promotes student, officer, and public safety, as determined by a scientifically conducted validation study of the knowledge, skills, abilities, and aptitudes needed by the affected category of Arizona peace officer.

b. The curriculum meets or exceeds the requirements of subsection (B)(2), unless otherwise provided in this Section.

2. Curriculum format standard. The curriculum consists of the following:
   a. A general statement of instructional intent that summarizes the desired learning outcome, is broad in scope, and includes long-term or far-reaching learning goals;
   b. Lesson plans containing:
      i. Course title,
      ii. Hours of instruction,
      iii. Materials and aids to be used,
      iv. Instructional strategy,
      v. Topic areas in outline form,
      vi. Performance objectives or learning activities,
      vii. Success criteria, and
      viii. Reference material;
   c. Performance objectives consisting of at least the following components:
      i. The student, which is an individual or group that performs a behavior as the result of instruction;
      ii. The behavior, which is an observable demonstration by the student at the end of instruction that shows that the objective is achieved and allows evaluation of the student's capabilities to perform the behavior; and
      iii. The conditions, which is a description of the important conditions of instruction or evaluation under which the student performs the behavior. Unless specified otherwise within the lesson plan, instruction and evaluation will be in written or oral form;
   d. Learning activities. A student is not required to demonstrate mastery of learning activities as a condition for successfully completing the training. Learning activities are subject areas for which performance objectives are not appropriate because either:
      i. Reliable and meaningful assessment of mastery of the material would be extremely difficult or impossible, or
      ii. Mastery of the material is not likely to bear a direct relationship to the ability to perform entry-level peace officer job duties; and
   e. The following decimal numbering system to provide a logical means of organization:
      i. Functional area (1.0, 2.0, 3.0),
      ii. Topic area (1.1.0, 1.2.0, 1.3.0), and
      iii. Performance objective or learning activity (1.1.1, 1.1.2, 1.1.3).

C. The Board shall maintain and provide upon request a copy of curricula that meet the standards of this Section.

R13-4-116. Academy Requirements

A. Unless otherwise provided in this Article, only the basic training provided by an academy that the Board determines meets the standards prescribed in this Section may be used to qualify for certified peace officer status.

B. The academy administrator shall ensure that the academy has the following:

1. A classroom with adequate heating, cooling, ventilation, lighting, and space;
2. Chairs with tables or arms for writing;
3. Visual aid devices for classroom presentation;
4. Equipment in good condition for specialized instruction;
5. A safe driving range for conducting the defensive and pursuit driving course;
6. A firing range with adequate backstop to ensure the safety of all ~~persons~~ individuals on or near the range; and
7. A safe location for practical exercises.

C. Administrative requirements. The academy administrator shall ensure that the academy:

1. Establishes and maintains written policies, procedures, and rules concerning: ~~the operation~~
   a. Operation of the academy, ~~entrance~~
   b. Entrance requirements, ~~and student~~
   c. Student and instructor conduct, and
   d. Administering examinations;
2. Admits only ~~persons~~ individuals who meet the requirements of R13-4-105, as attested to by the appointing agency or, in the case of an open enrollee, by the academy administrator, on a form prescribed by the Board;
3. Administers to each student at the beginning of each academy session a written examination prescribed by the Board measuring competency in reading and writing English;
4. Schedules sufficient time for Board staff to administer the CFE as required by R13-4-110(A); and
5. ~~Employs~~ Uses only instructors who are qualified under R13-4-114(A).

D. Academic requirements. The academy administrator shall ensure that the academy:

1. Establishes a curriculum with performance objectives and learning activities that meet the requirements of subsection (E) and R13-4-114(B);
2. Requires instructors to use lesson plans that cover the course content and list the performance objectives to be achieved and learning activities to be used;
3. Administers written, oral, or practical demonstration examinations that measure the attainment of the performance objectives;

4. Reviews examination results with each student and ensures that the student ~~makes and understands~~ is shown any necessary corrections and signs and dates an acknowledgment that the student participated in the review;
5. Requires a student to complete successfully ~~an~~ oral or written ~~examination in each topic area~~ examinations that cover all topics in all functional areas before graduating.
   a. Successful completion of an examination is a score of 70 percent or greater~~.~~;
   b. For a student who scores less than 70 percent, the academy shall:
      i. Provide remedial training, and
      ii. Re-examine the student in the area of deficiency~~.~~; and
   c. The academy shall allow a student to retake ~~an~~ each examination ~~in a topic area~~ only once;
6. Requires a student to qualify with firearms as described in R13-4-116(E);
7. Ensures that a student meets the success criteria for police proficiency skills under subsection (E)(1);
8. Provides remedial training for a student who misses a class before allowing the student to graduate; and
9. Refuses to graduate a student who is absent more than 32 hours from the full-authority peace officer basic training course or 16 hours from the specialty or limited-authority peace officer basic training course.

E. Basic course requirements. The academy administrator shall ensure that the academy uses curricula that meet the requirements of R13-4-114 for the following basic courses of instruction.

1. The 585-hour full-authority peace officer basic training course shall include all of the topics listed in each of the following functional areas:
   a. Functional Area I - Introduction to Law Enforcement.
      i. Criminal justice systems,
      ii. History of law enforcement,
      iii. Law enforcement services,
      iv. Supervision and management,
      v. Ethics and professionalism, and
      vi. Stress management.
   b. Functional Area II - Law and Legal Matters.
      i. Introduction to criminal law;
      ii. Laws of arrest;
      iii. Search and seizure;
      iv. Rules of evidence;
      v. Summonses, subpoenas, and warrants;
      vi. Civil process;
      vii. Administration of criminal justice;
      viii. Juvenile law and procedures;

ix. Courtroom demeanor;

x. Constitutional law;

xi. Substantive criminal law, A.R.S. Titles 4, 13, and 36; and

xii. Liability issues.

c. Functional Area III - Patrol Procedures.

i. Patrol and observation (part 1),

ii. Patrol and observation (part 2),

iii. Domestic violence,

iv. Mental illness,

v. Crimes in progress,

vi. Crowd control formations and tactics,

vii. Bomb threats and disaster training,

viii. Intoxication cases,

ix. Communication and police information systems,

x. Hazardous materials,

xi. Bias-motivated crimes,

xii. Fires, and

xiii. Civil Disputes.

d. Functional Area IV - Traffic Control.

i. Impaired driver cases;

ii. Traffic citations;

iii. Traffic collision investigation;

iv. Traffic collision (practical);

v. Traffic direction; and

vi. Substantive Traffic Law, A.R.S. Title 28.

e. Functional Area V - Crime Scene Management.

i. Preliminary investigation and crime scene management,

ii. Crime scene investigation (practical),

iii. Physical evidence procedures,

iv. Interviewing and questioning,

v. Fingerprinting,

vi. Sex crimes investigations,

vii. Death ~~Investigations~~ investigations ~~(~~including ~~training certified by the Department of Health Services on~~ sudden infant death syndrome~~)~~,

viii. Organized crime activity,

ix. Investigation of specific crimes, and

x. Narcotics and dangerous drugs.

f. Functional Area VI - Community and Police Relations.

i. Cultural awareness,

ii. Victimology,

iii. Interpersonal communications,

iv. Crime prevention, and

v. Police and the community.

g. Functional Area VII - Records and Reports. Report writing.

h. Functional Area VIII - Police Proficiency Skills.

i. First aid,

ii. Firearms training (including firearms qualification),

iii. Physical conditioning,

iv. High-risk stops,

v. ~~Defensive~~ Arrest and control tactics,

vi. Vehicle operations, and

vii. Pursuit operations.

i. Functional Area IX - Orientation and Introduction.

i. Examinations and reviews,

ii. Counseling, and

iii. Non-Board specified courses.

2. The specialty peace officer basic training course shall include all of the topics necessary from the 585-hour full-authority peace officer basic training course for the curriculum to meet the requirements of R13-4-114(B).

3. The limited-authority peace officer basic training course shall include all of the topics necessary from the 585-hour full-authority peace officer basic training course for the curriculum to meet the requirements of R13-4-114(B).

~~4. The 48-hour limited-correctional peace officer supplement course shall include all of the topics listed in the following functional areas:~~

~~a. Functional Area I - Introduction to Law Enforcement: Management and Supervision.~~

~~b. Functional Area II - Law and Legal Matters.~~

~~i. Laws of arrest, and~~

~~ii. Search and seizure.~~

~~c. Functional Area III - Patrol Procedures.~~

~~i. Patrol and observation, and~~

~~ii. Bias-motivated crimes.~~

~~d. Functional Area IV - Crime Scene Management.~~

~~i. Preliminary investigation, and~~

~~ii. Crime scene management.~~

~~e. Functional Area V - Proficiency Skills.~~

~~i. First aid, and~~

~~ii. Firearms training.~~

~~5.~~4. Administrative functions such as orientation, introductions, examinations and reviews, and counseling are exempt from the requirements of R13-4-114(B).

F. Records required. The academy administrator shall ensure that the following records are maintained and made available for inspection by the Board or staff. The academy administrator shall provide to the Board copies of records upon request.

1. A record of all students attending the academy;
2. A manual containing the policies, procedures, and rules of the academy;
3. A document signed by each student indicating that the student received and read a copy of the academy policies, procedures, and rules;
4. An application for each student, on a form prescribed by the Board, from the appointing agency ~~for each student~~ or, in the case of an open enrollee, from the academy administrator, attesting that the requirements of R13-4-105 are met;
5. A copy of all lesson plans used by instructors;
6. An annually signed and dated acknowledgment that the academy administrator reviewed and approved each lesson plan used at the academy;
7. A copy of all examinations, answer sheets or records of performance, and examination review acknowledgments;
8. An attendance roster for all classes or other record that identifies absent students;
9. A record of classes missed by each student and the remedial training received;
10. A record of disciplinary actions for all students; and
11. A file for each student containing the student's performance history.

G. Reports required. The academy administrator shall submit to the Board:

1. At least 10 working days before the start of each academy session, a complete schedule of classes containing the name of the instructor for each class and the training location;
2. No more than five working days after the start of each academy session, on a form prescribed by the Board, a roster ~~containing the identification of~~ indicating whether a student is an open enrollee or appointed and if appointed, identifying the appointing agency, and the full name and Social Security number of each student;

3. No more than five working days after dismissing a student from the academy, notification of the dismissal and the reason;
4. No later than the tenth day of each month, a report containing:
   a. A summary of training activities and progress of the academy class to date;
   b. Unusual occurrences, accidents, or liability issues; and
   c. Other problems or matters of interest noted in the course of the academy, if not included under subsection (G)(4)(b);
5. No more than 10 working days after the end of each academy session, a complete schedule of classes containing the name of the instructor for each class and the training location;
6. No more than 10 working days after the end of each academy session, on a form prescribed by the Board, a roster ~~containing the identification of~~ indicating whether a student is an open enrollee or appointed and if appointed, identifying the appointing agency, and the full name and Social Security number of each student successfully completing the training.

H. Required inspections. Before an academy provides training to ~~persons~~ individuals seeking certification for any category of peace officer, the Board staff shall conduct an onsite inspection of the academy to determine compliance with this Section and R13-4-114. Board staff shall conduct additional inspections as often as the Board deems necessary.

1. Within 30 days after the inspection, the Board staff shall provide to the academy administrator an inspection report that lists any deficiencies identified and remedial actions the academy is required to take to comply with the standards of this Section and R13-4-114.
2. Within 30 days after receipt of the inspection report, the academy administrator shall submit to the Board a response that indicates the progress made to complete the remedial actions necessary to correct the deficiencies described in the inspection report. The academy administrator shall submit to the Board additional responses every 30 days until all remedial action is complete.
3. Within 30 days after receipt of notice that all remedial action is complete, Board staff shall conduct another inspection.
4. Following each inspection, Board staff shall present an inspection report to the Board describing the academy's compliance in meeting the standards of this Section and R13-4-114.

I. If an academy does not conduct a peace officer basic training course for 12 consecutive months, the academy shall not provide training until Board staff conducts another inspection as required by subsection (H). Otherwise, an academy may continue to provide training unless the Board determines that the academy is not in compliance with the standards of this Section or R13-4-114.

J. If the Board finds that an academy fails to comply with the provisions of this Section or R13-4-114, the academy shall not provide training to ~~persons~~ individuals seeking to be certified as peace officers.

K. An academy administrator shall ensure that an open enrollee is admitted only after the academy administrator complies with every requirement of an agency or agency head imposed by R13-4-105, R13-4-106, R13-4-107, and R13-4-108 except for R13-4-106(C)(4).

R13-4-117. Training Expense Reimbursements

A. Approval of training courses. The Board shall approve or deny training courses for training expense reimbursement based on compliance with this Section and R13-4-111, and availability of funds.

B. Application for reimbursement. Before the beginning of a training program described in R13-4-111, an agency planning to participate in the training and apply for reimbursement, shall notify the Board on prescribed forms.

C. Claim for reimbursement. When ~~a person~~ an individual completes a training course, the appointing agency may submit a claim for reimbursement on a form prescribed by the Board. The ~~claim~~ agency shall ~~be submitted~~ submit the claim within 60 days after ~~completion of~~ the training is completed.

D. Allowable reimbursements. The Board shall allow the following reimbursements subject to the limits on the amount of reimbursement as determined by the Board under subsection (E):

1. The actual cost of lodging and meals while a peace officer ~~attends~~ attended a training course,

~~2. The actual pay a peace officer received while attending a training course,~~

~~3.~~2. Tuition for a training course on a pro-rata basis for the actual hours of training attended, and

~~4.~~3. Other expenses incurred by a peace officer.

E. Limitations on reimbursements. The following limitations apply to applications for reimbursement involving training courses.

1. The Board shall not reimburse an agency if the peace officer has previously completed the same training course within three years~~.~~;
2. The Board shall not reimburse an agency for a peace officer who fails to complete a training course except upon request of the appointing agency. The agency shall present the reasons for the non-completion to the Board with the request for reimbursement~~.~~; and

~~3. The Board may pay salary reimbursement for a training course only for the actual hours of training attended at the percentage rate established by the Board.~~

~~4.~~3. The Board shall not reimburse an agency for ~~payment~~ the cost of insurance, medical, pension, uniform, clothing, equipment, or other benefits or expenses of a peace officer while attending a training course.

F. Academy reimbursement. The Board may reimburse an academy for the actual costs of materials, books, ammunition, registration fees and tuition, necessary for completion of a basic course up to the limits set by the Board. To receive reimbursement, an academy shall furnish paid receipts or invoices or other information as required by the Board to verify costs incurred. The Board shall not reimburse an academy for costs incurred

for registration fees, tuition, books, materials, or ammunition for a peace officer, if the Board has made these reimbursements for the peace officer's previous attendance at an academy.

R13-4-118. Hearings; Rehearings

A. If a respondent makes a ~~proper~~ request for hearing under R13-4-109(E), the hearing shall be held in accordance with A.R.S. Title 41, Chapter 6, Article 10.

B. If a respondent fails to comply with the requirements under R13-4-109(E) within 30 days of the notice of action sent under R13-4-109(E), the Board may consider the case based on the information available.

C. If a respondent requests a hearing, but fails to appear at the hearing, the Board or administrative law judge may vacate the hearing. If a hearing is vacated, the Board may deem the acts and violations charged in the notice of action admitted, and impose any of the sanctions provided by A.R.S. § 41-1822(C)(1).

D. The Board shall render a decision in writing. The Board shall serve notice of the decision ~~upon~~ on each party as required by A.R.S. § 41-1092.04.

E. Except as provided in subsection (I), a party is required to file a motion for rehearing or review of a Board decision to exhaust the party's administrative remedies.

~~E.~~F. A party may file a motion for rehearing or ~~reconsideration~~ review of ~~the~~ a decision with the Board not later than 30 days after service of the Board's decision, specifying the particular grounds for the motion.

~~F.~~G. The Board may grant a rehearing or ~~reconsideration~~ review of a decision for any of the following reasons materially affecting the moving party's rights:

1. Irregularity in the administrative proceedings, or any abuse of discretion that ~~deprives~~ deprived the moving party ~~was deprived~~ of a fair hearing;
2. Misconduct of the Board, the administrative law judge, or the prevailing party;
3. Mistake or surprise that could not have been prevented by ordinary prudence;
4. Newly discovered material evidence that could not with reasonable diligence have been discovered and produced at the hearing;
5. Error in the admission or rejection of evidence or other errors of law occurring at the hearing; or
6. The decision was not justified by the evidence or the decision was contrary to law.

~~G.~~H. The Board may affirm or modify the decision or grant a rehearing to any or all of the parties, on part or all of the issues, for any of the reasons in subsection ~~(F)~~ (G). An order granting a rehearing shall specify the particular issues in the rehearing and the rehearing shall concern only the matters specified.

I. If the Board makes a specific finding that a particular decision needs to be effective immediately to preserve the public peace, health, or safety and that a review or rehearing of the decision is impracticable, unnecessary, or contrary to the public interest, the Board shall issue the decision as a final decision without an opportunity for rehearing or review.

ARTICLE 2. CORRECTIONAL OFFICERS

R13-4-201. Definitions

~~In~~ The definitions in A.R.S. § 41-1661 apply to this Article~~,~~ . Additionally, unless the context otherwise requires:

"Academy" means the Correctional Officer Training Academy (COTA) of the Arizona Department of Corrections in Tucson, Arizona, or a satellite location authorized by the Director.

"Appointment" means the selection of ~~a person~~ an individual as a correctional officer.

"Applicant" means an ~~person~~ individual who applies to be a correctional officer.

~~"Board" is defined in A.R.S. § 41-1661(2).~~

"Cadet" means an ~~applicant who meets the requirements for appointment as~~ individual who is attending the academy and, upon graduation, will become a state correctional officer ~~and is selected to attend the academy~~.

~~"Correctional officer" is defined in A.R.S. § 41-1661(3).~~

"Dangerous drug or narcotic" is defined in R13-4-101.

"Department" means the Arizona Department of Corrections.

~~"Director" is defined in A.R.S. § 41-1661(4).~~

~~"Employing agency" is defined in A.R.S. § 41-1661(5).~~

"Experimentation" means the illegal use of marijuana, a dangerous drug, or narcotic, as described in R13-4-105(B) and (C).

"State correctional officer" means ~~a person~~ an individual employed by the Department in the correctional ~~service officer and correctional program~~ officer series.

R13-4-202. Uniform Minimum Standards

A. To be admitted to the academy for training as a state correctional officer, ~~a person~~ an individual shall:

1. Be a citizen of the United States or ~~be~~ eligible to work in the United States;
2. Be at least 21 years of age by the date of graduation from the academy;
3. Be a high school graduate or have successfully completed a General Education Development (G.E.D.) examination or equivalent as specified in R13-4-203(C)(3);
4. Have a valid Arizona driver's license (Class 2 or higher) by the date of graduation from the academy;
5. Undergo a complete background investigation that meets the standards of R13-4-203;
6. Undergo a physical examination (within 12 months before appointment) as prescribed by the Director by a licensed physician designated by the Director;
7. Not have been dishonorably discharged from the United States Armed Forces;

8. Not have experimented with marijuana within the past 12 months;
9. Not have experimented with a dangerous drug or narcotic within the past five years;
10. Not have ever illegally used marijuana, or a dangerous drug or narcotic other than for experimentation;
11. Not have a pattern of abuse of prescription medication; and
12. Not have committed a felony or a misdemeanor of a nature that the Board determines has a reasonable relationship to the functions of the position, in accordance with A.R.S. § 13-904(E).

B. If the Director wishes to appoint an individual whose conduct is grounds to deny certification under R13-4-109, the Director may petition the Board for a determination that the otherwise disqualifying conduct constitutes juvenile indiscretion by complying with R13-4-105(D).

~~**B.**~~**C.** Code of Ethics. To enhance the quality of performance and the conduct and the behavior of correctional officers, ~~a person~~ an individual appointed to be a correctional officer shall commit to the following Code of Ethics and shall affirm the commitment by signing the ~~code, on a form designated by the Board~~ Code:

"I shall maintain high standards of honesty, integrity, and impartiality, free from any personal considerations, favoritism, or partisan demands. I shall be courteous, considerate, and prompt when dealing with the public, realizing that I serve the public. I shall maintain mutual respect and professional cooperation in my relationships with other staff members.

I shall be firm, fair, and consistent in the performance of my duties. I shall treat others with dignity, respect, and compassion, and provide humane custody and care, void of all retribution, harassment, or abuse. I shall uphold the Constitutions of the United States and the state of Arizona, and all federal and state laws. Whether on or off duty, in uniform or not, I shall conduct myself in a manner that will not bring discredit or embarrassment to my agency or the state of Arizona.

I shall report without reservation any corrupt or unethical behavior that could affect either inmates, employees, or the integrity of my agency. I shall not use my official position for personal gain. I shall maintain confidentiality of information that has been entrusted to me and designated as such.

I shall not permit myself to be placed under any kind of personal obligation that could lead any person to expect official favors. I shall not accept or solicit from anyone, either directly or indirectly, anything of economic value such as a gift, gratuity, favor, entertainment, or loan, that is or may appear to be, designed to influence my official conduct. I will not discriminate against any inmate, employee, or any member of the public on the basis of race, gender, creed, or national origin. I will not sexually harass or condone sexual harassment of any person. I shall maintain the highest standards of personal hygiene, grooming, and neatness while on duty or otherwise representing the state of Arizona."

R13-4-203. Background Investigation

A. The Department shall conduct a background investigation before an applicant is admitted to the academy. The Department shall review the personal history statement submitted under subsection (B) and the results of the

background investigation required in subsection (C) to determine ~~that~~ whether the ~~person~~ individual meets the requirements of R13-4-202~~,~~ and ~~that~~ the ~~person's~~ individual's personal history statement is accurate and truthful.

B. Personal history. An applicant shall complete and submit to the employing agency a personal history statement on a form prescribed by the Board. The applicant shall complete the personal history statement ~~shall be completed~~ before the start of the background investigation~~. It shall contain~~ and ensure that the personal history statement ~~answers to questions required in~~ provides the information necessary for the Department to conduct the investigation described in subsection (C).

C. Investigative requirements. Before admitting an applicant to the academy, the Department shall collect, verify, and retain documents establishing that ~~an~~ the applicant meets the standards specified in this Article. At a minimum, this documentation shall include:

1. Proof of the applicant's age and United States citizenship or eligibility to work in the United States. A copy of any of the following regarding the applicant is acceptable proof:
   a. ~~The applicant's birth~~ Birth certificate,
   b. United States passport,
   c. Certification of United States Naturalization,
   d. Certificate of Nationality, or
   e. Immigration Form I-151 or I-1551.
2. Proof of the applicant's valid ~~Arizona~~ driver's license. A copy of the applicant's ~~Arizona~~ driver's license~~, along with~~ and written verification of the applicant's driving record from the ~~Arizona~~ applicable state's Department of Transportation, Motor Vehicle Division, is required proof.
3. Proof that the applicant is a high school graduate or its equivalent. The following are acceptable proof:
   a. A copy of a ~~high school~~ diploma~~, or graduation certificate~~ from a high school recognized by the department of education of the jurisdiction in which the diploma is issued;
   b. ~~Successful~~ A copy of a certificate showing successful completion of the ~~Arizona~~ General Education Development (G.E.D.) ~~tests or successful completion of an equivalent~~ test ~~from another state, that meets or exceeds the Arizona Department of Education's requirement for G.E.D. testing~~; or
   c. In the absence of proof of high school graduation or successful completion of the G.E.D. ~~tests~~ test,
      i. A copy of ~~an Associate's Degree~~ a degree or transcript from an accredited college or university showing successful completion of high school or high school equivalency;
      ~~ii. A certificate issued by the United States Armed Forces Institute (U.S.A.F.I.) before December 31, 1974, showing successful completion of high school equivalency;~~
      ~~iii.~~ii. A United States Military Service Record DD Form 214-#4 with the Education block indicating high school completion, or

~~iv.~~iii. ~~The applicant may submit other~~ Other evidence of high school education equivalency submitted to the Board for consideration ~~by the Board~~.

4. Record of any military discharge. A copy of the Military Service Record (DD Form 214-#4) is acceptable proof.
5. Results of a psychological fitness assessment approved by the Director and conducted by a psychologist or psychiatrist designated by the Department.
6. Personal ~~reference~~ references: The names and addresses of at least three individuals who can provide information regarding the applicant.
7. ~~and previous employer inquiries~~ Previous employers or schools attended. ~~Information provided by at least three personal references and~~ The names and addresses of all ~~previous~~ employers of and schools attended by the applicant for the past five years ~~shall be documented by the Department~~.
8. Residence history. The complete address for every location at which the applicant has lived in the last five years.

~~7.~~9. Law enforcement agency records. The Department shall request and review law enforcement agency records in jurisdictions where the applicant has lived, worked, or attended school in the past five years. ~~Information~~ The Department shall document the information obtained ~~shall be documented by the Department~~.

~~8.~~10. Criminal history query. ~~Results of the Department's~~ The Department shall query ~~of~~ the National Crime Information Center/Interstate Identification Index (NCIC/III), and the Arizona Criminal Information Center/Arizona Computerized Criminal History (ACIC/ACCH), or the equivalent for each state where the applicant has lived, worked, or attended school in the past five years and review ~~of that~~ the criminal history record for any arrest or conviction to determine compliance with R13-4-202.

~~9.~~11. ~~An applicant~~ Fingerprint card. The Department shall obtain from an applicant and submit a fingerprint card ~~processed~~ for processing by the Arizona Department of Public Safety and the Federal Bureau of Investigation.

a. The Department shall process ~~an applicant~~ a fingerprint card for ~~all cadets~~ an applicant entering the academy, except as provided in subsections (C)(9)(b) and (C)(9)(c). ~~Fingerprint cards shall be processed by the~~ The Department~~,~~ shall process a fingerprint card for an applicant even if the applicant has a processed applicant fingerprint card from a previous employer.
b. If ~~an applicant~~ the fingerprint card is not fully processed when the applicant is ready to enter the academy, the Department may allow the applicant to attend the academy if:
   i. A computerized criminal history check has been made and the results are on file with the Department, and
   ii. The applicant meets all other requirements of this Section and R13-4-202.

c. If the Department has not received a fully processed fingerprint card within 15 weeks of the date of admission to the academy, the ~~person~~ individual does not meet the requirements of this Section and may be terminated from the academy. The Department may extend the deadline for receipt of a processed fingerprint card for an additional 15 weeks. An individual terminated from the academy under this subsection ~~Upon receipt of a fully processed card, the person~~ may be re-employed under R13-4-208 when a fully processed fingerprint card is received.

R13-4-204. Records and Reports

A. Reports. The Department shall submit to the Board a report by the Director attesting that each ~~person~~ individual completing the academy meets the requirements of R13-4-202.

B. Records. The Department shall make Department records available to the Board upon request of the Board or its staff. The Department shall keep the records in a central location. The Department shall maintain:

1. A copy of reports submitted under subsection (A);
2. All written documentation obtained or recorded under R13-4-202 and R13-4-203; and
3. A record of all advanced training, specialized training, continuing education, and firearms qualification conducted under R13-4-206 ~~and R13-4-207~~.

C. Record retention. The Department shall maintain the records required by this Section as follows:

1. For applicants investigated under R13-4-203 who are not appointed: two years; and
2. For applicants who are appointed: five years from the date of ~~appointment~~ termination, except records retained under subsection (B)(3), shall be retained for three years.

R13-4-205. Basic Training Requirements

A. Required training for state correctional officers. Before appointment as a state correctional officer, ~~a person~~ an individual shall complete a Board-approved basic correctional officer training program. This program shall meet or exceed the requirements of this Section.

B. Curricula or training material approval ~~time-frames~~ time frames.

1. For the purposes of A.R.S. § 41-1073, the Board establishes the following ~~time-frames~~ time frames for curricula or training material that require Board approval under this Section and R13-4-206.
   a. Administrative completeness ~~time-frame~~ time frame: 60 days.
   b. Substantive review ~~time-frame~~ time frame: 60 days.
   c. Overall ~~time-frame~~ time frame: 120 days.
2. The administrative completeness review ~~time-frame~~ time frame begins on the date the Board receives the documents required by this Section or R13-4-206.

a. Within ~~90~~ 60 days, the Board shall review the documents and issue to the Department a statement of administrative completeness or a notice of administrative deficiencies that lists each item required by this Section that is missing.

b. If the Board issues a notice of administrative deficiency, the Department shall submit the missing documents and information within 90 days of the notice. The administrative completeness ~~time-frame~~ time frame is suspended from the date of the deficiency notice until the date the Board receives the missing documents and information.

c. If the Department fails to provide the missing documents within the 90 days provided, the Board shall deny the approval.

d. When the file is administratively complete, the Board shall provide written notice of administrative completeness to the Department.

3. The substantive review ~~time-frame~~ time frame begins on the date the Board issues the notice of administrative completeness.

a. During the substantive review ~~time-frame~~ time frame, the Board may make one comprehensive written request for additional information.

b. The Department shall submit to the Board the additional information identified in the request for additional information within 60 days. The ~~time-frame~~ time frame for the Board to finish the substantive review of the application is suspended from the date of the request for additional information until the Board receives the additional information.

c. The Board shall deny the approval if the additional information is not supplied within the 60 days provided.

d. When the substantive review is complete, the Board shall grant or deny approval.

C. Basic course specifications.

1. The Department shall develop the curriculum for the basic correctional officer training program.

a. The curriculum shall include courses in the following functional areas.

i. Functional Area I - Ethics and Professionalism;

ii. Functional Area II - Inmate Management;

iii. Functional Area III - Legal Issues;

iv. Functional Area IV - Communication Skills;

v. Functional Area V - Officer Safety, including firearms;

vi. Functional Area VI - Applied Skills;

vii. Functional Area VII - Security, Custody, and Control;

viii. Functional Area VIII - Conflict and Crisis Management; and

ix. Functional Area IX - Medical Emergencies, and Physical and Mental Health.

b. The curriculum shall also contain administrative time for orientation, counseling, testing, and remedial training.

2. ~~Curriculum~~ The Department shall ensure that curriculum submitted to the Board for approval ~~shall contain~~ contains lesson plans that include:
   a. Course title,
   b. Hours of instruction,
   c. Materials and aids to be used,
   d. Instructional strategy,
   e. Topic areas in outline form,
   f. Success criteria, and
   g. The performance objectives or learning activities to be achieved.
3. After initial approval by the Board, the Director or the Director's designee shall: ~~annually~~
   a. Annually review ~~and approve~~ each lesson plan submitted to and approved by the Board under subsection (C)(2); ~~used in the academy.~~ and
   b. If an approved lesson plan has been changed, submit the changed lesson plan to the Board for approval; or
   c. ~~The Director or the Director's designee~~ If an approved lesson plan has not been changed, ~~shall~~ sign and date an acknowledgment of approval for each lesson plan.
4. ~~A~~ The Department shall ensure that the following three components are specified for each performance objective ~~shall consist of three components~~:
   a. The learner, which is an individual or group that performs a behavior as the result of instruction;
   b. The behavior, which is an observable demonstration by the learner at the end of instruction that shows that the objective is achieved and allows evaluation of the learner's capabilities relative to the behavior.
   c. The conditions, which is a description of the important conditions of instruction or evaluation under which the learner will perform the stated behavior. Unless specified otherwise, the instruction and evaluation shall be in written or oral form.
5. ~~Instructors~~ The Department shall ensure that instructors of basic correctional officer training courses ~~shall~~ meet ~~instructor~~ proficiency requirements developed by the Department and approved by the Board. ~~Instructors shall be qualified by~~ The Department shall ensure that proficiency requirements for instructors include education, experience, or a combination of both~~, and~~. The Department shall ~~be affirmed~~ affirm to the Board that each instructor ~~by the Department as having~~ has the necessary qualifications before the instructor ~~delivering~~ delivers any instruction. In addition to these requirements, instructors of courses dealing with the proficiency skills of defensive tactics, physical conditioning, firearms, and medical

emergencies shall complete specialized training developed by the Department and approved by the Board. Instructors shall use lesson plans described in subsection (C)(2).

D. Academic requirements.

1. ~~Cadets~~ A cadet shall be given ~~any~~ a combination of written, oral, or practical demonstration examinations capable of measuring ~~their~~ the cadet's attainment of the performance objectives in each approved lesson plan.
2. Academy staff shall review examination results and academic progress with ~~cadets~~ each cadet ~~on a~~ weekly ~~basis~~. Academy staff shall ensure that ~~cadets are aware~~ each cadet is informed of correct responses.
3. ~~Cadets~~ A cadet shall complete all examinations before graduating from the academy. To successfully complete a written or oral examination, a cadet shall ~~have a~~ score ~~of~~ at least 70 percent.
   a. ~~For a student who~~ If a cadet receives a score of less than 70 percent, the academy shall provide the cadet with remedial training in areas of deficiency.
   b. The academy shall not offer a cadet more than one re-examination per lesson plan.
4. ~~Each~~ A cadet shall qualify with firearms as specified in subsection (C). Firearms qualification shall include:
   a. 50-shot daytime or nighttime qualification course with service handgun. The minimum passing score is 210 points out of a possible 250 points;
   b. Seven-shot qualification course with service shotgun; and
   c. Target identification and discrimination course.
5. ~~Each~~ A cadet shall meet success criteria described in the Board-approved curriculum for the proficiency skills of self-defense, physical conditioning, and medical emergencies, as approved under R13-4-205(C).
6. ~~An~~ The academy shall provide ~~cadets~~ a cadet who ~~do~~ does not attend a lesson with remedial training before graduation.
7. ~~An~~ The academy shall not graduate a cadet who attends less than 90 percent of the total hours of basic training ~~shall not graduate from the academy~~.

E. Exceptions. A cadet shall not function as a state correctional officer except:

1. As a part of an exercise within the approved basic training program ~~at the academy~~, if the cadet is under the direct supervision and control of a state correctional officer; or
2. At the discretion of the Director, for the duration of an emergency situation including, but not limited to, riots, insurrections, and natural disasters. A cadet shall not carry a firearm in the course of duty unless the cadet has successfully met the requirement of R13-4-205(D)(4).

F. Waiver of required training. The Board shall grant a complete or partial waiver of the required basic training, at the request of the Director, upon a finding by the Board that the best interests of the corrections profession are served and the public welfare and safety is not jeopardized by the waiver if an applicant:

1. ~~An applicant successfully~~ Successfully completes a basic corrections ~~recruit~~ officer training course comparable to or exceeding, in hours of instruction and subject matter, the Board-approved basic correctional officer training course and has a minimum of one year of experience as a correctional officer. ~~Written~~ The applicant shall include verification of previous experience and training ~~shall accompany~~ with the application for waiver;
2. ~~An applicant meets~~ Meets the minimum qualifications specified in R13-4-202; and
3. ~~An applicant successfully~~ Successfully completes a comprehensive examination measuring comprehension of the basic correctional officer training course. The comprehensive examination shall be prepared by the Department, ~~and~~ approved by the Board~~. It shall~~ , and include a written test and practical demonstrations of proficiency in firearms, physical conditioning, and defensive tactics.

~~**G.** Certificate of completion time-frame. The Board shall provide certificates of completion for each person named in the Director's attestation made under R13-4-204(A) within 30 days of Board receipt. The Board shall mail certificates of completion to the Director for distribution.~~

R13-4-206. Field Training and Continuing Training Including Firearms Qualification

A. Field training requirement. Before graduating from the academy or within two months after graduation, a cadet or state correctional officer shall participate in and successfully complete a Board-approved field training program.

~~**A.**~~**B.** Continuing training requirement.

1. A state correctional officer shall receive eight hours of Board-approved continuing training each calendar year beginning January 1~~,~~ following the date the officer received certified status.
2. ~~A~~ In addition to the training required under subsection (B)(1), a state correctional officer authorized to carry a firearm shall qualify each calendar year after appointment beginning January 1~~,~~ following the date the officer received certified status~~,~~. ~~on a Board-approved course of fire,~~ The firearms qualification training shall meet the standards specified under subsection ~~(E). Firearms qualification~~ (F) and shall not be used to satisfy the requirements of R13-4-206~~(B)~~ (C).

~~**B.**~~**C.** Continuing training requirements may be fulfilled by:

1. Advanced training programs, or
2. Specialized training programs.

~~**C.**~~**D.** Advanced training programs. The Department shall develop, design, implement, maintain, evaluate, and revise advanced training programs that include courses enhancing a correctional officer's knowledge, skills, or abilities for the job that the correctional officer performs. The courses within ~~this~~ an advanced training program shall ~~be approved by the Board and~~ include advanced or remedial training in any topic listed in R13-4-205(C).

~~D.~~**E.** Specialized training programs. The Department shall develop, design, implement, maintain, evaluate, and revise specialized training programs that address a particular need of the Department and target a select group of officers. The courses within ~~this~~ a specialized training program shall ~~be approved by the Board and~~ include topics different from those in the basic corrections training program or any advanced training programs.

~~E.~~**F.** Firearms qualification required. A correctional officer authorized to carry a firearm shall qualify to continue to be authorized to carry a firearm each calendar year beginning the year following the receipt of certified status by completing a Board-prescribed firearms qualification course using a service handgun, service shotgun, and service ammunition, and a Board-prescribed target identification and judgment course.

1. Firearms qualification course standards.
   a. A firearms qualification course is:
      i. A course prescribed under R13-4-205(C); or
      ii. A course determined by the Board to measure firearms competency at least as accurately as the course prescribed under R13-4-205(C).
   b. All firearms qualification courses shall include:
      i. A timed accuracy component;
      ii. A type and style of target that is equal to, or more difficult than, the targets used under R13-4-205(C); and
      iii. Success criteria that are equal to, or more difficult than, the success criteria used under R13-4-205(C).
2. Firearms target identification and judgment course standards.
   a. A firearms target identification and judgment course is:
      i. A course prescribed under R13-4-205(C); or
      ii. A course determined by the Board to measure target identification and judgment competency at least as accurately as those prescribed under R13-4-205(C).
   b. All firearms target identification and judgment courses shall include:
      i. A timed accuracy component;
      ii. A type and style of target discrimination that is equal to, or more difficult than, those used under R13-4-205(C); and
      iii. Success criteria that are equal to, or more difficult than, those used under R13-4-205(C),
3. All courses shall be presented by a firearms instructor ~~meeting~~ who meets the requirements ~~of~~ under R13-4-205(C)(5).

R13-4-208. Re-employment of State Correctional Officers

A. A state correctional officer who terminates employment may be re-employed by the Department within two years from the date of termination if the ~~person~~ former state correctional officer meets the requirements of R13-4-202 and R13-4-203~~,~~ at the time of re-employment.

B. A state correctional officer who terminates employment may be re-employed by the Department if re-employment is sought more than two years but less than three years from the original date of termination, if the ~~person~~ former state correctional officer meets the requirements of R13-4-202 and R13-4-203~~,~~ at the time of re-employment~~,~~ and completes the waiver provisions of R13-4-205(F).

C. A ~~person~~ former state correctional officer who seeks re-employment more than three years from the date of termination shall meet all the requirements of this Article at the time of re-employment.

ECONOMIC, SMALL BUSINESS, AND CONSUMER IMPACT STATEMENT[1]

TITLE 13. PUBLIC SAFETY

CHAPTER 4. PEACE OFFICER STANDARDS AND TRAINING BOARD

1. Identification of the rulemaking:

In response to a five-year-review report approved by the Council on June 7, 2011, and statutory changes (See Laws 2011, Chapter 303), the Board is updating its rules to make them consistent with statute, agency practice, and current rule-writing standards.

The Board believes the following changes made in this rulemaking will have minimal economic impact:

- Clarifying that an outside provider of training may provide only continuing training;
- Clarifying that the Board may withdraw its confirmation that a continuing training course conducted by an outside provider meets requirements of the basic peace officer course if the Board receives information that the course content does not meet requirements;
- Adding requirements regarding the time within which an open enrollee must obtain an appointment and additional training requirements if an appointment is not obtained within the specified time;
- Establishing that illegally possessing marijuana, as well as illegally using it, disqualifies an individual from being a peace officer. A definition of illegal is added;
- Simplifying the medical assessment of whether an individual is able to perform the essential functions of the job of peace officer;
- Adding three grounds for denial, suspension, or revocation of certification;
- Adding that certification as a specialty or limited-authority peace officer requires passing relevant portions of the comprehensive final examination;
- Adding a report regarding criminal convictions or pleas by peace officers;
- Adding a requirement that a cadet or state correctional officer complete a Board-approved field training program; and
- Deleting salary as a reimbursable training expense.

[1] If adequate data are not reasonably available, the agency shall explain the limitations of the data, the methods used in an attempt to obtain the data, and characterize the probable impacts in qualitative terms. (A.R.S. § 41-1055(C)).

The Board made the following changes but believes they will have no economic impact:

- Clarifying the difference between an individual who is appointed to an academy and one who attends an academy as an open enrollee;
- Deleting reference to a limited correctional peace officer because it is a position that no longer exists;
- Specifying conditions under which an agency may seek to have an individual appointed with restrictions;
- Clarifying restrictions on certified status that result from training or qualification deficiencies;
- Clarifying that it is an agency rather than an individual that applies for a waiver of required training; and
- Clarifying the status, training, and time requirements applicable to obtaining a waiver of required training.

a. The conduct and its frequency of occurrence that the rule is designed to change:
Until the rulemaking is in effect, the Board's rules will continue to be inconsistent with statutory changes. They will also not be updated in ways identified in the five-year-review report approved by Council on June 7, 2011.

b. The harm resulting from the conduct the rule is designed to change and the likelihood it will continue to occur if the rule is not changed:
It is not good government and is a source of potential confusion for the public for an agency to have rules that are inconsistent with statute. Also, the legislature expects an agency to make timely the changes identified as needed in a five-year-review report.

c. The estimated change in frequency of the targeted conduct expected from the rule change:
When the rulemaking goes into effect, the rules will be consistent with statute. Also, the needed changes identified in the 2011 five-year-review report will be made.

2. A brief summary of the information included in the economic, small business, and consumer impact statement:
The Board believes the rulemaking will have minimal economic impact on certified peace officers, applicants to be peace officers, law enforcement agencies, and the Board. The economic impact will result primarily from the changes listed in item 1.

3. The person to contact to submit or request additional data on the information included in the economic, small business, and consumer impact statement:
Name: Lyle Mann, Executive Director

Address: 2643 E. University
Phoenix, AZ 85034
Telephone: (602) 774-9350
Fax: (602) 244-0477
E-mail: lmann@azpost.gov
Web site: www.azpost.gov

4. Persons who will be directly affected by, bear the costs of, or directly benefit from the rulemaking:

Certified peace officers, applicants to be peace officers, law enforcement agencies, and the Board are persons that are directly affected by, will bear the costs of, and directly benefit from the rulemaking.

There are currently 14,604 certified peace officers in Arizona and 5,807 corrections officers. These individuals work for 165 law enforcement agencies. During the last year, 870 individuals were appointed to (75 percent) or were an open enrollee (25 percent) at one of the 12 academies in Arizona[2]. Of these, 680 (78 percent) completed the training and 97 percent passed the comprehensive final examination on the first attempt. One individual who started the training was denied certification for academic dishonesty while at the academy.

The rules provide a means for an agency to petition the Board for a determination that an applicant's use of illegal drugs was only for experimentation or otherwise disqualifying conduct constitutes juvenile indiscretion. Because the standards for granting a petition are defined clearly, the Board generally receives petitions only if the standards are met. During the last year, the Board received five petitions regarding use of illegal drugs and granted all of them.

The rulemaking adds illegally possessing marijuana as conduct that disqualifies an individual from becoming a peace officer although a petition can be made that the illegal possession was for experimentation. This change is necessary to protect public safety and enhance public

[2] The 12 academies are: AZ Law Enforcement Academy, AZ Western College Law Enforcement Training Academy, Chandler-Gilbert Community College Law Enforcement Training Academy, Glendale Community College Law Enforcement Training Academy, Maricopa County Sheriff's Office Academy, Mesa Police Department Academy, Northern AZ Regional Training Academy, Northeastern AZ Law Enforcement Training Academy, Phoenix Police Reserve Academy, Pima Community College Law Enforcement Training Academy, Pima County Sheriff's Department Training Academy, and Western AZ Law Enforcement Training Academy.

confidence in law enforcement. It will have a negative economic impact on an individual who illegally possessed marijuana for other than experimentation. It is difficult to estimate the number of individuals affected by this change because those who do not meet the minimum qualifications generally do not seek appointment or open enrollment.

The rules require that agencies provide a new report to the Board (See R13-4-108(A)(3)). The report is about a peace officer who is convicted of or pleads no contest to a misdemeanor or felony. The Board determined the report is necessary to enhance public confidence in law enforcement. The cost to an agency to provide the report is minimal.

Rather than specifying medical standards in great detail, the rulemaking simplifies the medical assessment to focus on whether an individual is able to perform the essential functions of the job of peace officer. Detail regarding the medical assessment that was previously in rule is now in a medical screening manual that is provided to physicians who complete an eight-hour Board-provided training class. The Board pays $500 each to two physicians who teach the training class for other physicians. A screening manual that costs $10 is provided to each attendee. During 2015, thirteen physicians completed the training. There are currently approximately 43 physicians qualified to provide the required medical screening for peace officers.

The newly required field training for correctional officers was developed within the Department of Corrections so the cost was absorbed into the operating budget. The training is being expanded from one to four weeks. The Department of Corrections intends to assist all cadets to complete the training successfully so there will be no cost to cadets. If necessary, a cadet will return to the academy and repeat relevant coursework.

The Board conducted 121 hearings last year. Of these, 115 involved allegations of misconduct and five were to evaluate petitions regarding drug experimentation. The final hearing was to deny future certification to an individual. As a result of the hearings, the Board revoked the certification of 34 peace officers. Eight of the revocations were automatic upon conviction for a felony. The remaining 26 revocations resulted from Board action. Thirteen were for criminal offenses and 13 were for dishonesty during an internal affairs investigation. The Board also suspended the certification of 19 peace officers. Nine of these

were for off-duty DUIs, six for on-duty sexual activity, three for misdemeanor criminal offenses, and one for performance issues.

Four peace officers currently have restricted status. One of these is for failing to comply with the annual training requirements. The others result from medical issues.

The Board currently has 26 FTEs. Fourteen of these are actually employed by the Board. Six are DPS employees assigned as support staff to the Board and one is employed by the Office of the Attorney General and assigned as support to the Board. There are also five outside law enforcement agency contractors who work with the Board. The Board's funding comes from the Criminal Justice Enhancement Fund established at A.R.S. § 41-2401. The monies in the fund come from surcharges imposed under A.R.S. § 12-116.01. The Board receives 16.64 percent of the monies in the fund. Last year this amounted to $6,553,201.

The Board incurred the cost of making these rules and will incur the cost of implementing them. It has the benefit of rules that are consistent with statute, practice, and current rule-writing standards.

5. Cost-benefit analysis:
    a. Costs and benefits to state agencies directly affected by the rulemaking including the number of new full-time employees at the implementing agency required to implement and enforce the proposed rule:
    The Board is the only agency directly affected by the rulemaking. Its costs and benefits are described in item 4.
    b. Costs and benefits to political subdivisions directly affected by the rulemaking:
    Some political subdivisions operate academies. All political subdivisions employ certified peace officers and many employ corrections officers. The costs and benefits of doing so are described in item 4.
    c. Costs and benefits to businesses directly affected by the rulemaking:
    Physicians who voluntarily choose to participate in the Board-provided training that enables the physicians to conduct medical examinations for peace officers will be affected by the rulemaking. Outside providers of training that previously provided other than continuing training will be restricted to providing continuing training under the new rules.

6. Impact on private and public employment:

   The Board believes there will be no impact on private or public employment.

7. Impact on small businesses[3]:

   a. Identification of the small business subject to the rulemaking:

      As indicated in item 5(c), physicians who voluntarily choose to participate in the Board-provided training that enables the physicians to conduct medical examinations for peace officers and outside providers of continuing training are small businesses subject to this rulemaking.

   b. Administrative and other costs required for compliance with the rulemaking:

      The provider of continuing training is required to provide each attendee with a certificate verifying attendance and either a copy of the Board's written confirmation that the course meets curriculum standards or a copy of the lesson plan or other information sufficient to determine compliance with curriculum standards (See R13-4-111(2)). The training provider voluntarily incurs this cost.

      A physician who conducts a medical evaluation of an individual is required to provide a report to the agency appointing the individual (See R13-4-107(B)(2)). The physician voluntarily incurs this cost.

   c. Description of methods that may be used to reduce the impact on small businesses:

      The economic impact on small businesses is the least possible that allows the Board to fulfill its statutory responsibilities.

8. Cost and benefit to private persons and consumers who are directly affected by the rulemaking:

   No private persons or consumers are directly affected by the rulemaking.

9. Probable effects on state revenues:

   There will be no effect on state revenue.

10. Less intrusive or less costly alternative methods considered:

    The Board believes the rules are the least intrusive and costly possible and there is no less intrusive or less costly alternative method. None was considered.

[3] Small business has the meaning specified in A.R.S. § 41-1001(21).

TITLE 13. PUBLIC SAFETY

CHAPTER 4. ARIZONA PEACE OFFICER STANDARDS AND TRAINING BOARD

(Authority: A.R.S. § 41-1822(1) et seq.)

The Arizona Law Enforcement Officer Advisory Council's name was changed by Laws 1994, Ch. 324, § 1, effective July 17, 1994. All references to the Council were changed to reflect the new Board. (Supp. 94-3).

ARTICLE 1. GENERAL PROVISIONS

New Article 1 consisting of Sections R13-4-101 through R13-4-118 adopted effective March 23, 1989.

Former Article 1 consisting of Sections R13-4-01 through R13-4-08 repealed effective March 23, 1989.

Section
R13-4-101. Definitions
R13-4-102. Internal Organization and Control of the Board
R13-4-103. Certification of Peace Officers
R13-4-104. Peace Officer Category Restrictions
R13-4-105. Minimum Qualifications for Appointment
R13-4-106. Background Investigation Requirements
R13-4-107. Medical Requirements
R13-4-108. Agency Records and Reports
R13-4-109. Denial, Revocation, Suspension, or Cancellation of Peace Officer Certified Status
R13-4-109.01. Restriction of Certified Peace Officer Status: Training or Qualification Deficiencies
R13-4-110. Basic Training Requirements
R13-4-111. Certification Retention Requirements
R13-4-112. Time-frames
R13-4-113. Repealed
R13-4-114. Minimum Course Requirements
R13-4-115. Repealed
R13-4-116. Academy Requirements
R13-4-117. Training Expense Reimbursements
R13-4-118. Hearings; Rehearings

ARTICLE 2. CORRECTIONAL OFFICERS

Article 2, consisting of Sections R13-4-201 through R13-4-208, adopted effective December 16, 1992, filed June 16, 1992 (Supp. 92-2).

Section
R13-4-201. Definitions
R13-4-202. Uniform Minimum Standards
R13-4-203. Background Investigation
R13-4-204. Records and Reports
R13-4-205. Basic Training Requirements
R13-4-206. Continuing Training Including Firearms Qualification
R13-4-207. Repealed
R13-4-208. Re-employment of State Correctional Officers

ARTICLE 1. GENERAL PROVISIONS

R13-4-101. Definitions

In this Article, unless the context otherwise requires:

"Academy" means an entity that conducts the Board-prescribed basic training courses for full-authority, specialty, or limited-authority peace officers.

"Agency" means a law enforcement entity empowered by the state of Arizona.

"Appointment" means the selection by an agency of a person to be a peace officer or peace officer trainee.

"Approved training program" means a course of instruction that meets Board-prescribed course requirements.

"Board" means the Arizona Peace Officer Standards and Training Board.

"Board-trained physician" means an occupational medicine specialist or a physician who has attended a Board course on peace officer job functions.

"Cancellation" means the annulment of certified status without prejudice to reapply for certification.

"Certified" means approved by the Board as being in compliance with A.R.S. Title 41, Chapter 12, Article 8 and this Chapter.

"CFE" means the Board-approved Comprehensive Final Examination that measures mastery of the knowledge and skills taught in the 585-hour full-authority peace officer basic training course.

"Denial" means the refusal of the Board to grant certified status.

"Dangerous drug or narcotic" means a substance identified in A.R.S. § 13-3401 as being a dangerous drug or narcotic drug.

"Experimentation" means the illegal use of marijuana or a dangerous drug or narcotic as described in R13-4-105(B) and (C).

"Full-authority peace officer" means a peace officer whose authority to enforce the laws of this state is not limited by this Chapter.

"Lapse" means the expiration of certified status.

"Limited-authority peace officer" means a peace officer who is certified to perform the duties of a peace officer only in the presence and under the supervision of a full-authority peace officer.

"Limited correctional peace officer" means a peace officer who has authority to perform the duties of a peace officer only while employed by and on duty with the Arizona Department of Corrections, and only for the purposes of guarding, transporting, or pursuing persons under the jurisdiction of the Arizona Department of Corrections.

"Outside provider" means an entity other than the Board or an agency that makes training available to peace officers.

"Peace officer" has the meaning in A.R.S. § 1-215.

"Peace officer trainee" means a person recruited and appointed by an agency to attend an academy.

"Physician" means a person licensed to practice allopathic or osteopathic medicine in this or another state.

"Restriction" means the Board's limitation on duties allowed to be performed by a certified peace officer.

"Revocation" means the permanent withdrawal of certified status.

"Service ammunition" means munitions that perform equivalently in all respects when fired during training or qualification to those carried on duty by a peace officer.

"Service handgun" means the specific handgun or equivalent that a peace officer carries for use on duty.

"Specialty peace officer" means a peace officer whose authority is limited to enforcing specific sections of the Arizona

Revised Statutes or Arizona Administrative Code, as specified by the appointing agency's statutory powers and duties.

"Success criteria" means a numerical statement that establishes the performance needed for a person to demonstrate competency in a knowledge, task, or ability required by this Chapter.

"Suspension" means the temporary withdrawal of certified status.

"Termination" means the end of employment or service with an agency as a peace officer through removal, discharge, resignation, retirement, or otherwise.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). Amended effective August 6, 1991 (Supp. 91-3). References to "Council" changed to "Board" (Supp. 94-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective March 11, 2006 (Supp. 06-1).

R13-4-102. Internal Organization and Control of the Board

A. Scheduled meetings. The Chair, in consultation with the Board, shall set regular meeting dates of the Board and shall post notice of each regular meeting according to A.R.S. § 38-431.02.

B. Meeting agenda. Items to be placed on the agenda for Board consideration shall be submitted no later than 20 days before the scheduled meeting.

C. Special meetings. Except in the case of an emergency meeting declared by the Governor or the Chair, the Chair shall give at least five days' written notice of a special meeting to each member of the Board and shall post notice of the special meeting according to A.R.S. § 38-431.02.

D. Subcommittees. The Chair may appoint subcommittees to inquire into any matter of Board interest. Each subcommittee shall report its findings, conclusions, and recommendations to the Board, in a manner directed by the Chair.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-103. Certification of Peace Officers

A. Certified status mandatory. A person who is not certified by the Board or whose certified status is inactive shall not function as a peace officer or be assigned the duties of a peace officer by an agency, except as provided in subsection (B).

B. Sheriffs are exempt from the requirement of certified status.

C. A person shall satisfy the minimum qualifications and training requirements to receive certified status.

D. Peace officer categories. The categories for which certified status may be granted are:
1. Full-authority peace officer,
2. Specialty peace officer,
3. Limited-authority peace officer, and
4. Limited correctional peace officer.

E. Application for certification. A person who seeks to be certified as a peace officer shall make application as follows:
1. Submit to an agency an application that contains all documents required by R13-4-105, R13-4-106(A) and (B), and R13-4-107;
2. Obtain an appointment from an agency; and
3. Obtain either a certificate of graduation from a Board-prescribed Peace Officer Basic Course or a certificate of successful completion of the waiver of training process prescribed by R13-4-110(D).

F. Establishment or enforcement of qualifications, standards, or training requirements. The Board may waive in whole or in part any provision of this Article upon a finding that the best interests of the law enforcement profession are served and the public welfare and safety is not jeopardized by the waiver. The Board may place restrictions or requirements on a peace officer as a condition of certified status.

G. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3201, effective January 11, 2003 (Supp. 02-3).

R13-4-104. Peace Officer Category Restrictions

A. Limited-authority peace officer.
1. A limited-authority peace officer shall be in the presence and under the supervision of a full-authority peace officer when engaged in patrol or investigative activities performed to detect, prevent, or suppress crime, or to enforce criminal or traffic laws of the state, county, or municipality.
2. A limited-authority peace officer may perform the following duties without supervision of a full-authority peace officer:
   a. Directing traffic, or assisting with crowd control; or
   b. Maintaining public order in the event of riot, insurrection, or disaster.

B. Limited correctional peace officer. A limited correctional peace officer shall not engage in high-speed vehicular pursuit operations.

C. Peace officer category change. A certified peace officer may be appointed to another peace officer category within the same agency without the background investigation, fingerprint check, and medical examination required in R13-4-105, R13-4-106, and R13-4-107 when these requirements were previously satisfied for appointment if:
1. No more than 30 days have elapsed since the peace officer's termination, and
2. The change is to a category for which the officer is qualified under R13-4-110(A).

D. Inactive status. Certified status of a peace officer becomes inactive upon termination.

E. Lapse of certified status. Certified status of a peace officer lapses after three consecutive years on inactive status.

F. Reinstatement from inactive status. A peace officer whose certified status is inactive and has not lapsed may have certification reinstated if the requirements of R13-4-105 are met for the new appointment, and if appointed:
1. In the same peace officer category, or;
2. As a specialty officer from inactive status as a full-authority peace officer.

G. Active status as a specialty, limited-authority, or limited correctional peace officer does not prevent lapse of certified status as a full-authority peace officer.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). Amended effective August 6, 1991 (Supp. 91-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Amended by

final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-105. Minimum Qualifications for Appointment

A. Except as provided in subsection (C) or (D), a person shall meet the following minimum qualifications before being appointed to or attending an academy:
1. Be a United States citizen;
2. Be at least 21 years of age; except that a person may attend an academy if the person will be 21 before graduating;
3. Be a high school graduate or have successfully completed a General Education Development (G.E.D.) examination;
4. Undergo a complete background investigation that meets the standards of R13-4-106. A person may begin an academy before the results of the fingerprint check are returned. However, the academy shall not graduate the person and the Board shall not reimburse the academy for the person's training expenses until a qualifying fingerprint check return is obtained;
5. Undergo a medical examination that meets the standards of R13-4-107 within one year before appointment. An agency may make a conditional offer of appointment before the medical examination. If the medical examination is conducted more than 180 days before appointment, the person shall submit a written statement indicating that the person's medical condition has not changed since the examination;
6. Not have been convicted of a felony or any offense that would be a felony if committed in Arizona;
7. Not have been dishonorably discharged from the United States Armed Forces;
8. Not have been previously denied certified status, have certified status revoked, or have current certified status suspended;
9. Not have illegally sold, produced, cultivated, or transported for sale marijuana;
10. Not have illegally used marijuana for any purpose within the past three years;
11. Not have ever illegally used marijuana other than for experimentation;
12. Not have ever illegally used marijuana while employed or appointed as a peace officer;
13. Not have illegally sold, produced, cultivated, or transported for sale a dangerous drug or narcotic;
14. Not have illegally used a dangerous drug or narcotic, other than marijuana, for any purpose within the past seven years;
15. Not have ever illegally used a dangerous drug or narcotic other than for experimentation;
16. Not have ever illegally used a dangerous drug or narcotic while employed or appointed as a peace officer;
17. Not have a pattern of abuse of prescription medication;
18. Undergo a polygraph examination that meets the requirements of R13-4-106, unless prohibited by law;
19. Not have been convicted of or adjudged to have violated traffic regulations governing the movement of vehicles with a frequency within the past three years that indicates a disrespect for traffic laws or a disregard for the safety of other persons on the highway;
20. Read the code of ethics in subsection (F) and affirm by signature the person's understanding of and agreement to abide by the code.

B. The illegal use of marijuana, or a dangerous drug or narcotic is presumed to be not for experimentation if:
1. The use of marijuana exceeds a total of 20 times or exceeds five times since the age of 21 years; or
2. The use of any dangerous drug or narcotic, other than marijuana, in any combination exceeds a total of five times, or exceeds one time since the age of 21 years.

C. An agency head who wishes to appoint a person whose illegal use of marijuana or a dangerous drug or narcotic is presumed to be not for experimentation under this Section may petition the Board for a determination that, given the unique circumstances of the person's use, the use was for experimentation. The petition shall:
1. Specify the type of drugs illegally used, the number of uses, the age at the time of each use, the method by which the information regarding illegal use of drugs came to the agency's attention, and any attempt by the agency head to verify the accuracy of the information; and
2. State the factors the agency head wishes the Board to consider in making its determination. These factors may include:
   a. The duration of use,
   b. The motivation for use,
   c. The time elapsed since the last use,
   d. How the drug was obtained,
   e. How the drug was ingested,
   f. Why the person stopped using the drug, and
   g. Any other factor the agency head believes is relevant to the Board's determination.

D. An agency head who wishes to appoint a person whose conduct is grounds to deny certification under R13-4-109 may petition the Board for a determination that the otherwise disqualifying conduct constitutes juvenile indiscretion. The petition shall:
1. Specify the nature of the conduct, the number of times the conduct occurred, the method by which information regarding the conduct came to the agency's attention, and any attempt by the agency head to verify the accuracy of the information; and
2. Include sufficient information for the Board to determine that all of the following are true:
   a. The conduct occurred when the person was less than age 18;
   b. The conduct occurred more than 10 years before application for appointment;
   c. The person has consistently exhibited responsible, law-abiding behavior between the time of the conduct and application for appointment;
   d. There is reason to believe that the person's immaturity at the time of the conduct contributed substantially to the conduct;
   e. There is evidence that the person's maturity at the time of application makes reoccurrence of the conduct unlikely; and
   f. The conduct was not so egregious that public trust in the law enforcement profession would be jeopardized if the person is certified.
3. If the Board finds that the information submitted is sufficient for the Board to determine that the factors listed in subsection (D)(2) are true, the Board shall determine that the conduct constituted juvenile indiscretion and grant appointment.

E. For a limited correctional peace officer, previous completion of a background investigation conducted under R13-4-203 and a physical examination conducted under R13-4-202(A)(6) satisfies the requirements of this Section when there has been no interruption of employment by the agency, except that:
1. The limited correctional peace officer shall submit to a polygraph examination as required by subsection (A)(18); and

2. The agency shall query the National Crime Information Center/Interstate Identification Index (NCIC/III), and the Arizona Criminal Information Center/Arizona Computerized Criminal History (ACIC/ACCH) and review the returns to determine that the person meets the requirements of this Section.

F. Code of Ethics. Because the people of the state of Arizona confer upon all peace officers the authority and responsibility to safeguard lives and property within constitutional parameters, a peace officer shall commit to the following Code of Ethics and shall affirm the peace officer's commitment by signing the Code.

"I will exercise self-restraint and be constantly mindful of the welfare of others. I will be exemplary in obeying the laws of the land and loyal to the state of Arizona and my agency and its objectives and regulations. Whatever I see or hear of a confidential nature or that is confided to me in my official capacity will be kept secure unless revelation is necessary in the performance of my duty.

I will never take selfish advantage of my position and will not allow my personal feelings, animosities, or friendships to influence my actions or decisions. I will exercise the authority of my office to the best of my ability, with courtesy and vigilance, and without favor, malice, ill will, or compromise. I am a servant of the people and I recognize my position as a symbol of public faith. I accept it as a public trust to be held so long as I am true to the law and serve the people of Arizona."

G. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). Amended effective August 6, 1991 (Supp. 91-3). Amended effective January 13, 1993; filed July 13, 1992 (Supp. 92-3). References to "Council" changed to "Board" (Supp. 94-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3201, effective January 11, 2003 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective July 10, 2006 (Supp. 06-1).

R13-4-106. Background Investigation Requirements

A. Personal history statement. A person who seeks to be appointed shall complete and submit to the appointing agency a personal history statement on a form prescribed by the Board before the start of a background investigation. The history statement shall contain answers to questions that aid in determining whether the person is eligible for certified status as a peace officer. The questions shall concern whether the person meets the minimum requirements for appointment, has engaged in conduct or a pattern of conduct that would jeopardize the public trust in the law enforcement profession, and is of good moral character.

B. Investigative requirements for the applicant. To assist with the background investigation, a person who seeks to be appointed shall provide the following:

1. Proof of United States citizenship. A copy of a birth certificate, United States passport, or United States naturalization papers is acceptable proof.
2. Proof of education. A copy of a diploma, certificate, or transcript is acceptable proof.
3. Record of any military discharge. A copy of the Military Service Record (DD Form 214, Member 4) is acceptable proof.
4. Personal references. The names and addresses of at least three people who can provide information as personal references.
5. Previous employers or schools attended. The names and addresses of all employers and schools attended within the previous five years.
6. Residence history. A listing of the complete address for every location that the person has lived in the last five years.

C. Investigative requirements for the agency. A complete background investigation includes the following inquiries and a review of the returns to determine that the person seeking appointment meets the requirements of R13-4-105, and that the person's personal history statement is accurate and truthful. For each person seeking to be appointed, the appointing agency shall:

1. Query all the law enforcement agency records in jurisdictions listed in subsections (B)(5) and (B)(6);
2. Query the motor vehicle division driving record from any state listed in subsections (B)(5) and (B)(6);
3. Complete and submit a Fingerprint Card Inventory Sheet to the Federal Bureau of Investigation and Arizona Department of Public Safety for query;
4. Query the National Crime Information Center/Interstate Identification Index (NCIC/III), and the Arizona Criminal Information Center/Arizona Computerized Criminal History (ACIC/ACCH), or the equivalent for each state listed in subsections (B)(5) and (B)(6);
5. Contact all personal references and employers listed in subsections (B)(4) and (B)(5) and document the answers to inquiries concerning whether the person meets the standards of this Section;
6. Administer a polygraph examination, unless prohibited by law. The results shall include a detailed report of the pre-test interview and any post-test interview and shall cover responses to all questions that concern minimum standards for appointment as required by R13-4-105, truthfulness on the personal history statement, and the commission of any crimes; and
7. If the results of the background investigation show that the person meets minimum qualifications for appointment, has not engaged in conduct or a pattern of conduct that would jeopardize public trust in the law enforcement profession, and is of good moral character, complete a report that attests to those findings.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). Amended effective January 13, 1993; filed July 13, 1992 (Supp. 92-3). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-107. Medical Requirements

A. Medical Categories. The medical categories for certification are:

1. Category I. No medical, physical, or mental circumstance exists that limits the person's ability to effectively perform all the duties of a peace officer or creates a reasonable probability of substantial harm to the person or others;
2. Category II. A medical, physical, or mental circumstance exists that absent a reasonable accommodation by the appointing agency would limit the person's ability to effectively perform all the duties of a peace officer or create a reasonable probability of substantial harm to the person or others; and

3. Category III. A medical, physical, or mental circumstance exists that despite reasonable accommodation by the appointing agency limits the person's ability to effectively perform all the duties of a peace officer or creates a reasonable probability of substantial harm to the person or others.

B. Eligibility for certified status.
1. Category I. A person in Category I may be appointed if the person meets all other qualifications.
2. Category II. If an agency chooses to make the required accommodation and appoint a person in Category II, and the examination was made by a Board-trained physician, the appointment may be made without further action by the Board. However, if the examining physician has not been trained by the Board, a medical review under subsection (H) by a Board-trained physician is required to determine eligibility for certified status. If the Board-trained physician agrees with the finding of the other physician, the appointment may be made without further action by the Board.
3. Category III. If an agency wishes to appoint a person in Category III, the agency shall submit a letter to the Board asking for a determination of eligibility for certification. The letter shall include a report from a Board-trained physician identifying the medical limitations and the proposed accommodations. The Board shall determine the person's eligibility for certified status, based upon whether the appointing agency is able to make reasonable accommodations, and whether by placing restrictions or requirements on the person as a condition of certified status under R13-4-103(F), the person is able to perform the duties authorized within the restriction without endangering the person or others.

C. Medical, physical, or mental circumstances in Category II and Category III include:
1. Angina pectoris;
2. Asthma;
3. Cancer - metastatic or leukemia;
4. Cardiac arrhythmias or murmurs;
5. Cerebral vascular accident;
6. Chest pains of unknown origin;
7. Contagious hepatitis;
8. Contagious tuberculosis;
9. Chronic respiratory disease;
10. Diabetes, insulin dependent or ketosis-prone;
11. Fixation of major joint;
12. Hearing not specified in subsection (D);
13. Herniated lumbar disc;
14. Hypertension, uncontrolled;
15. Inguinal hernia;
16. Liver or renal dysfunction;
17. Migraine headache;
18. Myocardial infarction, history of;
19. Paralysis;
20. Pilonidal cyst;
21. Prosthetic device, e.g., limbs, hearing aid, colostomy;
22. Recurrent dislocation of a major joint;
23. Schizophrenia or manic depressive psychosis;
24. Scoliosis greater than 15 degrees;
25. Seizure disorders;
26. Current substance abuse;
27. Valvular heart disease, uncorrected;
28. Vision not specified in subsection (D) or monocular vision;
29. Wasting disease, chronic, such as multiple sclerosis, myasthenia gravis, or amyotrophic lateral sclerosis; and
30. Any other medical, physical, or mental circumstance that the examining physician determines may interfere with the person's ability to function as a peace officer effectively or may create a reasonable probability of substantial harm to the person or others.

D. Vision and hearing. Vision and hearing meeting the following requirements are classified in Category I:
1. Visual acuity of:
   a. 20/20 or better uncorrected;
   b. 20/20 or better, corrected by spectacles or hard contact lenses, if uncorrected acuity is 20/80 or better. The applicant shall demonstrate satisfactory adaptation to the contact lenses; or
   c. 20/20 or better, corrected by soft contact lenses, if the uncorrected acuity is 20/200 or better. The applicant shall demonstrate satisfactory adaptation to the contact lenses;
2. Vision capable of distinguishing basic color groups against a favorable background.
3. Peripheral vision:
   a. That does not reveal scotoma or quadrantonopia; or
   b. In which vision perimeter testing is intact at 170 degrees; and
4. Uncorrected hearing with no loss greater than 25 db in the 500, 1000, 2000, or 3000 hertz frequencies as measured by an audiometer.

E. Medical history. A person who seeks to be appointed shall supply to the examining physician a statement of the person's medical history that includes past and present diseases, injuries, operations, immunization status, and medications taken.

F. Medical examination. The examining physician shall review the person's medical history and examine the person.

G. Examination report. The examining physician shall record the findings of the medical examination on a form prescribed by the Board. The physician shall indicate whether a medical, physical, or mental circumstance in Category II or III exists, describe how the circumstance affects the person's ability to perform the duties of a peace officer, and specify the type and duration of any treatment required. In all Category II or III cases, the physician shall advise the appointing agency in writing of any limitation on the person's ability to function as a peace officer.

H. Category II and Category III reviews. The diagnosis of a person with a circumstance classified in Category II or Category III by an examining physician who is not Board trained shall be reviewed by a Board-trained physician if the agency intends to appoint the person. The Board-trained physician may review prior medical examination reports concerning the person and contact examining physicians to review their findings. If required by the Board-trained physician, an independent medical examination shall be conducted, if the agency wishes to appoint the person, and the person shall be referred to a specialist in the appropriate medical field.

I. Additional findings. The appointing agency may submit to the Board results of additional examinations or tests, or obtain additional opinions from other licensed physicians.

J. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective January 11, 2003 (Supp. 02-3).

R13-4-108. Agency Records and Reports

A. Agency reports. On forms prescribed by the Board, an agency shall submit:
1. A report by the agency head attesting that the requirements of R13-4-105 are met for each person appointed. The report shall be submitted to the Board before a person attends an academy or performs the duties of a peace officer.
2. A report of the termination of a peace officer. The report shall be submitted to the Board within 15 days of the termination and include:
   a. The nature of the termination and effective date;
   b. A detailed description of any termination for cause; and
   c. A detailed description of, and supporting documentation for, any cause existing for suspension or revocation of certified status.

B. Agency records. An agency shall make its records available upon the request of the Board or staff. The agency shall maintain the following for each person for whom certification is sought:
1. An application file that contains all of the information required in R13-4-103(E) and R13-4-106(C) for each person appointed for certification as a peace officer;
2. A copy of reports submitted under subsection (A);
3. A signed copy of the affirmation to the Code of Ethics required under R13-4-105;
4. A written report of the results of a completed or partially completed background investigation and all written documentation obtained or recorded under R13-4-106;
5. A completed medical report required under R13-4-105; and
6. A record of all continuing training, proficiency training, and firearms qualifications conducted under R13-4-111.

C. Record retention. An agency shall maintain the records required by this Section as follows:
1. For applicants investigated under R13-4-106 who are not appointed: three years;
2. For applicants who are appointed: five years from the date of termination, except records retained under subsection (B)(6) shall be retained for three years following completion of training.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-109. Denial, Revocation, Suspension, or Cancellation of Peace Officer Certified Status

A. Causes for denial, suspension, or revocation. The Board may deny certified status or suspend or revoke the certified status of a peace officer for:
1. Failure to satisfy a minimum qualification for appointment listed in R13-4-105;
2. Willfully providing false information in connection with obtaining or reactivating certified status;
3. A medical, physical, or mental disability that substantially limits the person's ability to perform the duties of a peace officer effectively, or may create a reasonable probability of substantial harm to the person or others, for which a reasonable accommodation cannot be made;
4. Violation of a restriction or requirement for certified status imposed under R13-4-109.01, or R13-4-103(F);
5. The illegal use of marijuana, a dangerous drug, or a narcotic;
6. Unauthorized use of or being under the influence of spirituous liquor on duty;
7. The commission of a felony, an offense that would be a felony if committed in this state, or an offense involving dishonesty, unlawful sexual conduct, or physical violence;
8. Malfeasance, misfeasance, or nonfeasance in office; or
9. Any conduct or pattern of conduct that tends to disrupt, diminish, or otherwise jeopardize public trust in the law enforcement profession.

B. Cause for cancellation. The Board shall cancel the certified status of a peace officer if the Board determines that the person was not qualified when certified status was granted, and revocation is not warranted under subsection (A).

C. Cause for mandatory revocation. Upon the receipt of a certified copy of a judgment of a felony conviction of a peace officer, the Board shall revoke certified status of the peace officer.

D. Action by the Board. Upon receipt of information that cause exists to deny certification, or to cancel, suspend, or revoke the certified status of a peace officer, the Board shall determine whether action is to be initiated regarding the retention of certified status. The Board may conduct additional inquiries or investigations to obtain sufficient information to make a fair determination.

E. Notice of action. The Board shall notify the affected person of Board action to initiate proceedings regarding certified status for a cause listed under subsection (A) or (B). The notice shall be served as required by A.R. S. § 41-1092.04, and specify the cause for the action. Within 30 days of delivery, the person named in the notice shall advise the Board or its staff in writing whether a hearing is requested. Failure to file a written request for hearing at the Board offices within 30 days of service of the notice constitutes a waiver of the right to a hearing.

F. Effect of agency action. Action by an agency or a decision resulting from an appeal of that action does not preclude action by the Board to deny, cancel, suspend, or revoke the certified status of a peace officer.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-109.01. Restriction of Certified Peace Officer Status: Training or Qualification Deficiencies

A. Restricted status. The Board shall restrict certified status if a peace officer fails to satisfy the requirements of R13-4-111.
1. The Board shall consider reports of training or qualification deficiencies at a regularly scheduled public meeting and provide a peace officer alleged to have a training or qualification deficiency the opportunity to be heard without referral to an independent hearing officer. The issue at the public meeting shall be restricted to whether the peace officer has successfully completed the required training or qualification and can produce documentation to verify it.
2. A restriction shall remain in effect until the training or qualification requirement is met and the peace officer files written verification of the training or qualification with the Board.
3. The Board shall provide notice of action and hearing, or reinstatement following a restriction under this Section by regular mail to the peace officer at the employing agency address. The Board shall provide a copy of the

restriction or reinstatement notice by regular mail to the agency head.

B. Firearms qualification. If a peace officer fails to satisfy R13-4-111(C), the peace officer shall not carry or use a firearm on duty.

C. Continuing and proficiency training. If a peace officer fails to satisfy R13-4-111(A) or (B), the peace officer shall not engage in enforcement duties, carry a firearm, wear or display a badge, wear a uniform, make arrests, perform patrol functions, or operate a marked police vehicle.

Historical Note

New Section made by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-110. Basic Training Requirements

A. Required training for certified status. The Board shall not certify and a person shall not perform the duties of a peace officer until the person successfully completes basic training as follows:

1. To be certified as a full-authority peace officer, a person shall complete the 585-hour full-authority peace officer basic training course, specified in R13-4-116, at an academy and pass the CFE.
   a. Board staff shall administer the CFE.
   b. The Board shall ensure that the CFE is administered during the final two weeks of the full-authority peace officer basic training course.
   c. A person passes the CFE by achieving a score of at least 70 percent on each of the three blocks of the CFE when each block is scored separately.
   d. A person who fails one or more blocks of the CFE may retake the failed block one time before the person is scheduled to graduate from the academy.
   e. A person who fails a retake of a block of the CFE, as described in subsection (A)(1)(d), may retake the failed block once more within 60 days from the original testing date if the person remains appointed by the original appointing agency or enrolled in the academy.
   f. A person who fails a second retake of a block of the CFE, as described in subsection (A)(1)(e), may pursue certification only by repeating the 585-hour full-authority peace officer basic training course.
   g. An agency head is not required to continue to appoint a person during the 60 days permitted for a second retake of a failed block of the CFE, as described in subsection (A)(1)(e).
2. To be certified as a specialty peace officer, a person shall complete a Board-prescribed specialty peace officer basic training course or the 585-hour full-authority peace officer basic training course, specified in R13-4-116, at an academy.
3. To be certified as a limited-authority peace officer, a person shall complete a Board-prescribed limited-authority peace officer basic training course or the 585-hour full-authority peace officer basic training course, specified in R13-4-116, at an academy.
4. To be certified as a limited correctional peace officer, a person shall complete the correctional officer basic training course specified in R13-4-205 and the 48-hour limited correctional peace officer supplement course specified in R13-4-116, at the Arizona correctional officer training academy.

B. Exceptions. The training requirement in subsection (A) is waived when an agency uses a person during a:

1. Riot, insurrection, disaster, or other event that exhausts the peace officer resources of the agency and the person is attending an academy; or
2. Field training program that is a component of a basic training program at an academy, and the person is under the direct supervision and control of a certified peace officer.

C. Firearms training required.

1. Unless otherwise specified in this Section, a peace officer shall complete the firearms qualification courses required in R13-4-116(E) before the peace officer carries a firearm in the course of duty.
2. Before carrying a firearm in the course of duty, a limited correctional peace officer shall:
   a. Meet the requirements of R13-4-205, and
   b. Complete a night-time firearms qualification shoot based on the course of fire, as described in R13-4-205.

D. Waiver of required training. A person may apply to the Board for a waiver of required training if the person's certified status is lapsed or the person has functioned in the capacity of a peace officer in another state or for a federal law enforcement agency. The Board shall grant a complete or partial waiver of required training if the Board determines that the best interests of the law enforcement profession are served, the public welfare and safety are not jeopardized, and:

1. The appointing agency submits to the Board written verification of the person's previous experience and training on a form prescribed by the Board;
2. The person meets the minimum qualifications listed in R13-4-105;
3. The person complies with the requirements of R13-4-103(E)(1);
4. The appointing agency complies with the requirements of R13-4-106(C);
5. The person successfully completes an examination measuring the person's comprehension of the full-authority peace officer basic training course as follows:
   a. If during the last three years, the person has at least two years of experience as a peace officer in another state or for a federal law enforcement agency, and the person submits to the Board basic training and in-service training records that the Board determines demonstrate substantial comparability to Arizona's full-authority peace officer basic training course, the person shall pass the portions of the CFE covering legal and liability issues specific to Arizona;
   b. If the person's certification is lapsed, the person shall pass all blocks of the CFE; or
   c. If the person's out-of-state or federal law enforcement experience does not meet the criterion in subsection (D)(5)(a), but the Board determines that the person's basic training and in-service training records demonstrate substantial comparability to Arizona's full-authority peace officer basic training course, the person shall pass all blocks of the CFE; and
6. In addition to the examination required under subsection (D)(5), the person satisfactorily performs the practical demonstrations of proficiency in physical conditioning, vehicle operations, pursuit operations, and firearms, including firearms qualifications, as required under R13-4-116(E)(1).

E. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3201, effective January 11, 2003 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective July 10, 2006 (Supp. 06-1).

R13-4-111. Certification Retention Requirements

A. Continuing training required.

1. The following continuing training standards apply for a peace officer to retain certification:
   a. A full-authority peace officer shall complete eight hours of continuing training each year beginning January 1, following the date the officer is certified.
   b. A specialty, limited-authority, or limited correctional peace officer shall complete eight hours of continuing training every three years beginning January 1, following the date the officer is certified.
2. Continuing training course standards for peace officers. The provider of a continuing training course for peace officers shall ensure that:
   a. The course curriculum consists of advanced or remedial instruction on one or more of the topic areas specified in R13-4-116(E)(1);
   b. The instructor meets the requirements of R13-4-114(A)(2)(a) or (b);
   c. An attendance verification certificate, which includes a statement that the provider believes the course meets the requirements of this Section, is given to each attendee for audit purposes;
   d. If the training provider is an agency, an attendance roster and lesson plan or other information sufficient to determine compliance with this Section is made available upon request by the Board for Board audit;
   e. If the training provider is an outside provider that does not seek confirmation that the course meets the requirements under subsection (A)(3)(c), a copy of the lesson plan or other information sufficient to determine compliance with this Section is given to each attendee; and
   f. If the training provider is an outside provider that seeks and receives confirmation under subsection (A)(3)(c), a copy of the Board's written confirmation is distributed to each attendee.
3. Training providers. Courses of continuing training may be conducted by the Board, an agency, or an outside provider.
   a. All Board-provided continuing training courses meet the requirements of this Section.
   b. Agency-provided continuing training courses meet the requirements of this Section if all the requirements of subsection (A)(2) are met.
   c. Outside-provider continuing training courses meet the requirements of this Section if all the requirements of subsection (A)(2) are met. The Board shall inform an outside provider in writing whether a continuing training course meets these requirements if a course package is submitted to the Board, before the training is conducted, that includes:
      i. A description of the training course that allows the Board to determine whether the course contains advanced or remedial instruction on one or more of the topic areas specified in R13-4-116(E)(1);
      ii. The name of the person, or if applicable, the institution or organization, providing the training with sufficient information to allow the Board to determine whether the requirements of R13-4-114(A)(2)(a) or (b) are met;
      iii. A course schedule listing the number of instructional hours; and
      iv. An attestation that the outside provider shall, upon request by the Board, make the lesson plan or other information sufficient to determine compliance with this Section available for Board audit, and shall ensure that the requirement of subsection (A)(2)(b) is met.
   d. The Board's confirmation that a continuing training course conducted by an outside provider meets the requirements of this Section is effective as long as the information submitted to the Board under subsection (A)(3)(c) is unchanged.
4. A limited correctional peace officer satisfies the requirements of this Section by obtaining training that is:
   a. Approved under R13-4-206,
   b. Provided by an instructor who meets the requirements of R13-4-205(C)(5), and
   c. On a topic area listed in R13-4-116(E)(4).
5. Required records. A peace officer shall provide to the appointing agency a copy of all documents provided to the peace officer under subsection (A)(2)(c), (A)(2)(e), or (A)(2)(f). The appointing agency shall maintain the documents and make them available, upon request by the Board, for Board audit.

B. Proficiency training required.

1. To retain certification, a peace officer who is not in a supervisory position within the peace officer's appointing agency shall complete eight hours of proficiency training every three years beginning January 1, following the date the peace officer is certified.
2. Proficiency training course standards. The provider of a proficiency training course for peace officers shall ensure that:
   a. The training requires physical demonstration of one or more performance objectives included in the 585-hour full-authority peace officer basic training course under R13-4-116 and demonstration of the use of judgment in the application of the physical act;
   b. The curriculum consists of advanced or remedial instruction on one or more of the following topic areas:
      i. Defensive tactics and impact weapons,
      ii. Tactical firearms (not the annual firearms qualification required under this Section),
      iii. Emergency vehicle operations,
      iv. Pursuit operations,
      v. First aid and emergency care,
      vi. Physical conditioning, and
      vii. High-risk stops;
   c. The instructor meets the requirements of R13-4-114(A)(2)(c);
   d. An attendance verification certificate, which includes a statement that the provider believes the course meets the requirements of this Section, is given to each attendee for audit purposes;
   e. If the training provider is an agency, an attendance roster and lesson plan or other information sufficient to determine compliance with this Section is made available upon request by the Board for Board audit;

f. If the training provider is an outside provider that does not seek confirmation under subsection (B)(3)(c) that the course meets the requirements of this Section, a copy of the lesson plan or other information sufficient to determine compliance with this Section is given to each attendee; and
g. If the training provider is an outside provider that seeks and receives confirmation under subsection (B)(3)(c), a copy of the Board's written confirmation is given to each attendee.

3. Training providers. Proficiency training courses may be conducted by the Board, an agency, or an outside provider.
   a. All Board-provided proficiency training courses meet the requirements of this Section.
   b. Agency-provided proficiency training courses meet the requirements of this Section if all the requirements of subsection (B)(2) are met.
   c. Outside-provider proficiency training courses meet the requirements of this Section if all the requirements of subsection (B)(2) are met. The Board shall inform an outside provider in writing whether a proficiency training course meets these requirements if a course package is submitted to the Board, before the training is conducted, that includes:
      i. A description of the training course that allows the Board to determine whether the course contains advanced or remedial instruction on one or more of the topic areas specified in subsection (B)(2);
      ii. The name of the person, or if applicable, the institution or organization, providing the training with sufficient information to allow the Board to determine whether the requirements of R13-4-114(A)(2)(c) are met;
      iii. A course schedule listing the number of instructional hours; and
      iv. An attestation that the outside provider shall, upon request by the Board, make the lesson plan and other information sufficient to determine compliance with this Section available for Board audit, and shall ensure that the requirement of subsection (B)(2)(d) is met.
   d. The Board's confirmation that a proficiency training course conducted by an outside provider meets the requirements of this Section is effective as long as the information submitted to the Board under subsection (B)(3)(c) is unchanged.
4. A limited correctional peace officer satisfies the requirements of this Section by obtaining training that is:
   a. Approved under R13-4-206,
   b. Provided by an instructor who meets the requirements of R13-4-205(C), and
   c. On a topic area listed in subsection (B)(2)(b) except (B)(2)(b)(iv).
5. Required records. A peace officer shall provide to the appointing agency a copy of all documents provided to the peace officer under subsection (B)(2)(d), (B)(2)(f) or (B)(2)(g). The appointing agency shall maintain the documents and make them available, upon request by the Board, for Board audit.

C. Firearms qualification required. A peace officer authorized to carry a firearm shall qualify to continue to be authorized to carry a firearm each year beginning January 1 following certification by completing a Board-prescribed firearms qualification course, using a service handgun and service ammunition, and a Board-prescribed target identification and judgment course.
1. Firearms qualification course standards.
   a. A firearms qualification course is a course:
      i. Prescribed under R13-4-116(E)(1), or
      ii. Determined by the Board to measure firearms competency at least as accurately as courses prescribed under R13-4-116(E)(1).
   b. The provider of a firearms qualification course shall ensure that the course includes:
      i. A timed accuracy component;
      ii. A type and style of target that is equal to, or more difficult than, targets used in a course prescribed under R13-4-116(E)(1); and
      iii. A success criterion that is equal to, or more difficult than, criteria used in a course prescribed under R13-4-116(E)(1).
2. Firearms target identification and judgment course standards.
   a. A firearms target identification and judgment course is a course:
      i. Prescribed under R13-4-116(E)(1), or
      ii. Determined by the Board to measure target identification and judgment competency at least as accurately as courses prescribed under R13-4-116(E)(1).
   b. The provider of a firearms target identification and judgment course shall ensure that the course includes:
      i. A timed accuracy component;
      ii. A type and style of target discrimination test that is equal to, or more difficult than, those used in a course prescribed under R13-4-116(E)(1); and
      iii. A success criterion that is equal to, or more difficult than, criteria used in a course prescribed under R13-4-116(E)(1).
3. The provider of a firearms qualification or firearms target identification and judgment course shall ensure that the course is taught by a firearms instructor who meets the requirements of R13-4-114(A)(2)(c).

D. This Section is effective six months after filing with the Secretary of State as required by A.R.S. § 41-1823(A).

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Section repealed; new Section made by final rulemaking at 8 A.A.R. 3201, effective January 11, 2003 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective July 10, 2006 (Supp. 06-1).

R13-4-112. Time-frames

A. For the purposes of A.R.S. § 41-1073, the Board establishes the following time-frames for peace officer certification:
1. Administrative completeness review time-frame: 90 days.
2. Substantive review time-frame: 180 days.
3. Overall time-frame: 270 days.

B. The administrative completeness review time-frame begins on the date the Board receives the report required by R13-4-108(A)(1) from an appointing agency.
1. Within 90 days, the Board shall review the report and issue to the appointing agency a statement of administrative completeness or a notice of administrative deficien-

cies that lists each document or item of information establishing compliance with R13-4-105 that is missing.

2. If the Board issues a notice of administrative deficiency, the appointing agency shall make the missing documents and information available to the Board within 90 days of the date of the notice. The administrative completeness review time-frame is suspended from the date of the deficiency notice until the date the missing documents and information are made available to the Board.
3. If the appointing agency fails to make available all missing documents and information within the 90 days provided, the Board shall close the applicant's file. An applicant whose file is closed and who wants to be certified shall apply again under R13-4-103.
4. When the file is administratively complete, the Board shall provide written notice of administrative completeness to the appointing agency.

C. The substantive review time-frame begins on the date the Board issues the notice of administrative completeness.

1. During the substantive review time-frame, the Board may make one comprehensive written request for additional information.
2. The appointing agency shall make available to the Board the additional information identified in the request for additional information within 60 days. The time-frame for the Board to finish the substantive review of the application is suspended from the date of the request for additional information until the additional information is made available to the Board.
3. If the appointing agency fails to make available the additional information requested within the 60 days provided, the Board shall close the applicant's file. An applicant whose file is closed and who wants to be certified shall apply again under R13-4-103.
4. When the substantive review is complete, the Board shall grant or deny certification.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Adopted effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Section repealed; new Section made by final rulemaking at 8 A.A.R. 3201, effective January 11, 2003 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective March 11, 2006 (Supp. 06-1).

R13-4-113. Repealed

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). Amended effective August 6, 1991 (Supp. 91-3). Reference to "Council" changed to "Board" (Supp. 94-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Section repealed by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-114. Minimum Course Requirements

A. Instructors. An academy administrator or agency head shall ensure that only an instructor who meets the requirements of this Section facilitates a Board-prescribed course.

1. Instructor classifications.
   a. General instructor. A person qualified to teach topics not requiring a proficiency instructor under subsection (A)(1)(c).
   b. Specialist instructor. A person, other than an Arizona peace officer, qualified to teach a topic in which the instructor has special expertise but who does not qualify for general instructor status.
   c. Proficiency instructor. A person qualified to teach a topic area listed in R13-4-111(B)(2)(b).
2. Instructor qualification standards.
   a. A general instructor shall meet the requirements of subsections (A)(2)(a)(i) and (A)(2)(a)(ii) and either the requirement of subsection (A)(2)(a)(iii) or (A)(2)(a)(iv):
      i. Have two years experience as a certified peace officer;
      ii. Maintain instructional competency;
      iii. Successfully complete a Board-sponsored instructor training course or an instructor training course that contains all of the performance objectives and demonstrations of the Board-sponsored instructor course;
      iv. Possess a community college or university teaching certificate.
   b. A specialist instructor shall meet the requirements of subsections (A)(2)(b)(i) and (A)(2)(b)(ii) and either subsection (A)(2)(b)(iii) or subsections (A)(2)(b)(iv) and (A)(2)(b)(v):
      i. Be nominated by an agency head or the administrator of an academy authorized to provide a peace officer basic training course;
      ii. Maintain instructional competency;
      iii. Possess a professional license or certification other than a peace officer certification that relates to the topics to be taught;
      iv. Provide documentation to the agency head or academy administrator for forwarding to the Board that demonstrates the expertise and ability to enhance peace officer training in a special field;
      v. Possess a community college or university teaching certificate.
   c. A proficiency instructor shall meet the requirements of subsections (A)(2)(c)(i) and (A)(2)(c)(ii) and either subsection (A)(2)(c)(iii) or (A)(2)(c)(iv):
      i. Meet the requirements for general instructor;
      ii. Maintain instructional competency;
      iii. Successfully complete a proficiency instructor course in a topic area listed in R13-4-111(B)(2)(b) that includes a competency assessment to instruct in that area within the 585-hour full-authority peace officer basic training course listed in R13-4-116(E);
      iv. Complete a form prescribed by the Board that documents advanced training and experience in the topic area including a competency assessment to instruct in that area within the 585-hour full-authority peace officer basic training course listed in R13-4-116(E);
   d. A proficiency instructor shall meet the requirements of subsection (A)(2)(c) separately for each topic area listed in R13-4-111(B)(2)(b) for which the proficiency instructor seeks qualification.
3. Instructional competency. An academy administrator or an agency head shall immediately notify the Board in writing of any instructor:
   a. Who jeopardizes the safety of students or the public,
   b. Whose instruction violates acceptable training standards,
   c. Who is grossly deficient in performance as an instructor, or

d. Who is a proficiency instructor and fails to complete satisfactorily the competency assessment to instruct in the instructor's topic area within the 585-hour full-authority peace officer basic training course.

4. If the Board determines that an instructor fails to comply with the provisions of this Section, has an instructional deficiency, or fails to maintain proficiency, any course facilitated by the instructor does not meet the requirements of this Section.

B. Curriculum standards. An academy administrator or agency head shall ensure that the curriculum for a Board-prescribed course meets the following standards:

1. Curriculum.
   a. Curriculum development employs valid, job-based performance objectives and learning activities, and promotes student, officer, and public safety, as determined by a scientifically conducted validation study of the knowledge, skills, abilities, and aptitudes needed by the affected category of Arizona peace officer.
   b. The curriculum meets or exceeds the requirements of subsection (B)(2), unless otherwise provided in this Section.
2. Curriculum format standard. The curriculum consists of the following:
   a. A general statement of instructional intent that summarizes the desired learning outcome, is broad in scope, and includes long-term or far-reaching learning goals;
   b. Lesson plans containing:
      i. Course title,
      ii. Hours of instruction,
      iii. Materials and aids to be used,
      iv. Instructional strategy,
      v. Topic areas in outline form,
      vi. Performance objectives or learning activities,
      vii. Success criteria, and
      viii. Reference material;
   c. Performance objectives consisting of at least the following components:
      i. The student, which is an individual or group that performs a behavior as the result of instruction;
      ii. The behavior, which is an observable demonstration by the student at the end of instruction that shows that the objective is achieved and allows evaluation of the student's capabilities to perform the behavior; and
      iii. The conditions, which is a description of the important conditions of instruction or evaluation under which the student performs the behavior. Unless specified otherwise within the lesson plan, instruction and evaluation will be in written or oral form;
   d. Learning activities. A student is not required to demonstrate mastery of learning activities as a condition for successfully completing the training. Learning activities are subject areas for which performance objectives are not appropriate because either:
      i. Reliable and meaningful assessment of mastery of the material would be extremely difficult or impossible, or
      ii. Mastery of the material is not likely to bear a direct relationship to the ability to perform entry-level peace officer job duties; and
   e. The following decimal numbering system to provide a logical means of organization:
      i. Functional area (1.0, 2.0, 3.0),
      ii. Topic area (1.1.0, 1.2.0, 1.3.0), and
      iii. Performance objective or learning activity (1.1.1, 1.1.2, 1.1.3).

C. The Board shall maintain and provide upon request a copy of curricula that meet the standards of this Section.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Section repealed; new Section made by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective March 11, 2006 (Supp. 06-1).

R13-4-115. Repealed

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Section repealed by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-116. Academy Requirements

A. Unless otherwise provided in this Article, only the basic training provided by an academy that the Board determines meets the standards prescribed in this Section may be used to qualify for certified peace officer status.

B. The academy administrator shall ensure that the academy has the following:

1. A classroom with adequate heating, cooling, ventilation, lighting, and space;
2. Chairs with tables or arms for writing;
3. Visual aid devices for classroom presentation;
4. Equipment in good condition for specialized instruction;
5. A safe driving range for conducting the defensive and pursuit driving course;
6. A firing range with adequate backstop to ensure the safety of all persons on or near the range; and
7. A safe location for practical exercises.

C. Administrative requirements. The academy administrator shall ensure that the academy:

1. Establishes and maintains written policies, procedures, and rules concerning the operation of the academy, entrance requirements, and student and instructor conduct;
2. Admits only persons who meet the requirements of R13-4-105, as attested to by the appointing agency on a form prescribed by the Board;
3. Administers to each student at the beginning of each academy session a written examination prescribed by the Board measuring competency in reading and writing English;
4. Schedules sufficient time for Board staff to administer the CFE as required by R13-4-110(A); and
5. Employs only instructors who are qualified under R13-4-114(A).

D. Academic requirements. The academy administrator shall ensure that the academy:

1. Establishes a curriculum with performance objectives and learning activities that meet the requirements of subsection (E) and R13-4-114(B);
2. Requires instructors to use lesson plans that cover the course content and list the performance objectives to be achieved and learning activities to be used;

3. Administers written, oral, or practical demonstration examinations that measure the attainment of performance objectives;
4. Reviews examination results with each student and ensures that the student makes and understands any necessary corrections and signs and dates an acknowledgment that the student participated in the review;
5. Requires a student to complete successfully an oral or written examination in each topic area before graduating.
   a. Successful completion of an examination is a score of 70 percent or greater.
   b. For a student who scores less than 70 percent, the academy shall:
      i. Provide remedial training, and
      ii. Re-examine the student in the area of deficiency.
   c. The academy shall allow a student to retake an examination in a topic area only once;
6. Requires a student to qualify with firearms as described in R13-4-116(E);
7. Ensures that a student meets the success criteria for police proficiency skills under subsection (E) (1);
8. Provides remedial training for a student who misses a class before allowing the student to graduate; and
9. Refuses to graduate a student who is absent more than 32 hours from the full-authority peace officer basic training course or 16 hours from the specialty or limited-authority peace officer basic training course.

E. Basic course requirements. The academy administrator shall ensure that the academy uses curricula that meet the requirements of R13-4-114 for the following basic courses of instruction.

1. The 585-hour full-authority peace officer basic training course shall include all of the topics listed in each of the following functional areas:
   a. Functional Area I - Introduction to Law Enforcement.
      i. Criminal justice systems,
      ii. History of law enforcement,
      iii. Law enforcement services,
      iv. Supervision and management,
      v. Ethics and professionalism, and
      vi. Stress management.
   b. Functional Area II - Law and Legal Matters.
      i. Introduction to criminal law;
      ii. Laws of arrest;
      iii. Search and seizure;
      iv. Rules of evidence;
      v. Summonses, subpoenas, and warrants;
      vi. Civil process;
      vii. Administration of criminal justice;
      viii. Juvenile law and procedures;
      ix. Courtroom demeanor;
      x. Constitutional law;
      xi. Substantive criminal law, A.R.S. Titles 4, 13, and 36; and
      xii. Liability issues.
   c. Functional Area III - Patrol Procedures.
      i. Patrol and observation (part 1),
      ii. Patrol and observation (part 2),
      iii. Domestic violence,
      iv. Mental illness,
      v. Crimes in progress,
      vi. Crowd control formations and tactics,
      vii. Bomb threats and disaster training,
      viii. Intoxication cases,
      ix. Communication and police information systems,
      x. Hazardous materials,
      xi. Bias-motivated crimes,
      xii. Fires, and
      xiii. Civil Disputes.
   d. Functional Area IV - Traffic Control.
      i. Impaired driver cases;
      ii. Traffic citations;
      iii. Traffic collision investigation;
      iv. Traffic collision (practical);
      v. Traffic direction; and
      vi. Substantive Traffic Law, A.R.S. Title 28.
   e. Functional Area V - Crime Scene Management.
      i. Preliminary investigation and crime scene management,
      ii. Crime scene investigation (practical),
      iii. Physical evidence procedures,
      iv. Interviewing and questioning,
      v. Fingerprinting,
      vi. Sex crimes investigations,
      vii. Death Investigations (including training certified by the Department of Health Services on sudden infant death syndrome),
      viii. Organized crime activity,
      ix. Investigation of specific crimes, and
      x. Narcotics and dangerous drugs.
   f. Functional Area VI - Community and Police Relations.
      i. Cultural awareness,
      ii. Victimology,
      iii. Interpersonal communications,
      iv. Crime prevention, and
      v. Police and the community.
   g. Functional Area VII - Records and Reports. Report writing.
   h. Functional Area VIII - Police Proficiency Skills.
      i. First aid,
      ii. Firearms training (including firearms qualification),
      iii. Physical conditioning,
      iv. High risk stops,
      v. Defensive tactics,
      vi. Vehicle operations, and
      vii. Pursuit operations.
   i. Functional Area IX - Orientation and Introduction.
      i. Examinations and reviews,
      ii. Counseling, and
      iii. Non-Board specified courses.
2. The specialty peace officer basic training course shall include all of the topics necessary from the 585-hour full-authority peace officer basic training course for the curriculum to meet the requirements of R13-4-114(B).
3. The limited-authority peace officer basic training course shall include all of the topics necessary from the 585-hour full-authority peace officer basic training course for the curriculum to meet the requirements of R13-4-114(B).
4. The 48-hour limited correctional peace officer supplement course shall include all of the topics listed in the following functional areas:
   a. Functional Area I - Introduction to Law Enforcement: Management and Supervision.
   b. Functional Area II - Law and Legal Matters.
      i. Laws of arrest, and
      ii. Search and seizure.
   c. Functional Area III - Patrol Procedures.

i. Patrol and observation, and
ii. Bias-motivated crimes.
d. Functional Area IV - Crime Scene Management.
i. Preliminary investigation, and
ii. Crime scene management.
e. Functional Area V - Proficiency Skills.
i. First aid, and
ii. Firearms training.
5. Administrative functions such as orientation, introductions, examinations and reviews, and counseling are exempt from the requirements of R13-4-114(B).

F. Records required. The academy administrator shall ensure that the following records are maintained and made available for inspection by the Board or staff. The academy administrator shall provide to the Board copies of records upon request.
1. A record of all students attending the academy;
2. A manual containing the policies, procedures, and rules of the academy;
3. A document signed by each student indicating that the student received and read a copy of the academy policies, procedures, and rules;
4. An application, on a form prescribed by the Board, from the appointing agency for each student attesting that the requirements of R13-4-105 are met;
5. A copy of all lesson plans used by instructors;
6. An annually signed and dated acknowledgment that the academy administrator reviewed and approved each lesson plan used at the academy;
7. A copy of all examinations, answer sheets or records of performance, and examination review acknowledgments;
8. An attendance roster for all classes or other record that identifies absent students;
9. A record of classes missed by each student and the remedial training received;
10. A record of disciplinary actions for all students; and
11. A file for each student containing the student's performance history.

G. Reports required. The academy administrator shall submit to the Board:
1. At least 10 working days before the start of each academy session, a complete schedule of classes containing the name of the instructor for each class and the training location;
2. No more than five working days after the start of each academy session, on a form prescribed by the Board, a roster containing the identification of the appointing agency, and the full name and Social Security number of each student;
3. No more than five working days after dismissing a student from the academy, notification of the dismissal and the reason;
4. No later than the tenth day of each month, a report containing:
a. A summary of training activities and progress of the academy class to date;
b. Unusual occurrences, accidents, or liability issues; and
c. Other problems or matters of interest noted in the course of the academy, if not included under subsection (G)(4)(b);
5. No more than 10 working days after the end of each academy session, a complete schedule of classes containing the name of the instructor for each class and the training location;
6. No more than 10 working days after the end of each academy session, on a form prescribed by the Board, a roster containing the identification of the appointing agency, and the full name and Social Security number of each student successfully completing the training.

H. Required inspections. Before an academy provides training to persons seeking certification for any category of peace officer, the Board staff shall conduct an onsite inspection of the academy to determine compliance with this Section and R13-4-114. Board staff shall conduct additional inspections as often as the Board deems necessary.
1. Within 30 days after the inspection, the Board staff shall provide to the academy administrator an inspection report that lists any deficiencies identified and remedial actions the academy is required to take to comply with the standards of this Section and R13-4-114.
2. Within 30 days after receipt of the inspection report, the academy administrator shall submit to the Board a response that indicates the progress made to complete the remedial actions necessary to correct the deficiencies described in the inspection report. The academy administrator shall submit to the Board additional responses every 30 days until all remedial action is complete.
3. Within 30 days after receipt of notice that all remedial action is complete, Board staff shall conduct another inspection.
4. Following each inspection, Board staff shall present an inspection report to the Board describing the academy's compliance in meeting the standards of this Section and R13-4-114.

I. If an academy does not conduct a peace officer basic training course for 12 consecutive months, the academy shall not provide training until Board staff conducts another inspection as required by subsection (H). Otherwise, an academy may continue to provide training unless the Board determines that the academy is not in compliance with the standards of this Section or R13-4-114.

J. If the Board finds that an academy fails to comply with the provisions of this Section or R13-4-114, the academy shall not provide training to persons seeking to be certified as peace officers.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended effective October 20, 1995; filed with the Secretary of State April 20, 1995 (Supp. 95-2). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3). Amended by final rulemaking at 12 A.A.R. 331, effective March 11, 2006 (Supp. 06-1).

R13-4-117. Training Expense Reimbursements

A. Approval of training courses. The Board shall approve or deny training courses for training expense reimbursement based on compliance with this Section and R13-4-111, and availability of funds.

B. Application for reimbursement. Before the beginning of a training program described in R13-4-111, an agency planning to participate in the training and apply for reimbursement, shall notify the Board on prescribed forms.

C. Claim for reimbursement. When a person completes a training course, the appointing agency may submit a claim for reimbursement on a form prescribed by the Board. The claim shall be submitted within 60 days after completion of training.

D. Allowable reimbursements. The Board shall allow the following reimbursements subject to the limits on the amount of reimbursement as determined by the Board under subsection (E):

1. The actual cost of lodging and meals while a peace officer attends a training course,
2. The actual pay a peace officer received while attending a training course,
3. Tuition for a training course on a pro rata basis for the actual hours of training attended, and
4. Other expenses incurred by a peace officer.

E. Limitations on reimbursements. The following limitations apply to applications for reimbursement involving training courses.

1. The Board shall not reimburse an agency if the peace officer has previously completed the same training course within three years.
2. The Board shall not reimburse an agency for a peace officer who fails to complete a training course except upon request of the appointing agency. The agency shall present the reasons for the non-completion to the Board with the request for reimbursement.
3. The Board may pay salary reimbursement for a training course only for the actual hours of training attended at the percentage rate established by the Board.
4. The Board shall not reimburse an agency for payment of insurance, medical, pension, uniform, clothing, equipment, or other benefits or expenses of a peace officer while attending a training course.

F. Academy reimbursement. The Board may reimburse an academy for the actual costs of materials, books, ammunition, registration fees and tuition, necessary for completion of a basic course up to the limits set by the Board. To receive reimbursement an academy shall furnish paid receipts or invoices or other information as required by the Board to verify costs incurred. The Board shall not reimburse an academy for costs incurred for registration fees, tuition, books, materials, or ammunition for a peace officer, if the Board has made these reimbursements for the peace officer's previous attendance at an academy.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-118. Hearings; Rehearings

A. If a respondent makes a proper request for hearing under R13-4-109(E), the hearing shall be held in accordance with A.R.S. Title 41, Chapter 6, Article 10.

B. If a respondent fails to comply with the requirements under R13-4-109(E) within 30 days of the notice of action sent under R13-4-109(E), the Board may consider the case based on the information available.

C. If a respondent requests a hearing, but fails to appear at the hearing, the Board or administrative law judge may vacate the hearing. If a hearing is vacated, the Board may deem the acts and violations charged in the notice of action admitted, and impose any of the sanctions provided by A.R.S. § 41-1822(C)(1).

D. The Board shall render a decision in writing. The Board shall serve notice of the decision upon each party as required by A.R.S. § 41-1092.04.

E. A party may file a motion for rehearing or reconsideration of the decision with the Board not later than 30 days after service of the Board's decision, specifying the particular grounds for the motion.

F. The Board may grant a rehearing or reconsideration of a decision for any of the following reasons materially affecting the moving party's rights:

1. Irregularity in the administrative proceedings, or any abuse of discretion that deprives the moving party was deprived of a fair hearing;
2. Misconduct of the Board, the administrative law judge, or the prevailing party;
3. Mistake or surprise that could not have been prevented by ordinary prudence;
4. Newly discovered material evidence that could not with reasonable diligence have been discovered and produced at the hearing;
5. Error in the admission or rejection of evidence or other errors of law occurring at the hearing; or
6. The decision was not justified by the evidence or the decision was contrary to law.

G. The Board may affirm or modify the decision or grant a rehearing to any or all of the parties, on part or all of the issues, for any of the reasons in subsection (F). An order granting a rehearing shall specify the particular issues in the rehearing and the rehearing shall concern only the matters specified.

Historical Note

Adopted effective March 23, 1989 (Supp. 89-1). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

ARTICLE 2. CORRECTIONAL OFFICERS

R13-4-201. Definitions

In this Article, unless the context otherwise requires:

"Academy" means the Correctional Officer Training Academy (COTA) of the Arizona Department of Corrections in Tucson, Arizona, or a satellite location authorized by the Director.

"Appointment" means the selection of a person as a correctional officer.

"Applicant" means an person who applies to be a correctional officer.

"Board" is defined in A.R.S. § 41-1661(2).

"Cadet" means an applicant who meets the requirements for appointment as a correctional officer and is selected to attend the academy.

"Correctional officer" is defined in A.R.S. § 41-1661(3).

"Dangerous drug or narcotic" is defined in R13-4-101.

"Department" means the Arizona Department of Corrections.

"Director" is defined in A.R.S. § 41-1661(4).

"Employing agency" is defined in A.R.S. § 41-1661(5).

"Experimentation" means the illegal use of marijuana, a dangerous drug, or narcotic, as described in R13-4-105(B) and (C).

"State correctional officer" means a person employed by the Department in the correctional service officer and correctional program officer series.

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). Reference to "Council" changed to "Board" and definitions relabeled accordingly (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-202. Uniform Minimum Standards

A. To be admitted to the academy for training as a state correctional officer, a person shall:

1. Be a citizen of the United States or be eligible to work in the United States;

2. Be at least 21 years of age;
3. Be a high school graduate or have successfully completed a General Education Development (G.E.D.) examination or equivalent as specified in R13-4-203(C)(3);
4. Have a valid Arizona driver's license (Class 2 or higher);
5. Undergo a complete background investigation that meets the standards of R13-4-203;
6. Undergo a physical examination (within 12 months before appointment) as prescribed by the Director by a licensed physician designated by the Director;
7. Not have been dishonorably discharged from the United States Armed Forces;
8. Not have experimented with marijuana within the past 12 months;
9. Not have experimented with a dangerous drug or narcotic within the past five years;
10. Not have ever illegally used marijuana, or a dangerous drug or narcotic other than for experimentation;
11. Not have a pattern of abuse of prescription medication;
12. Not have committed a felony or a misdemeanor of a nature that the Board determines has a reasonable relationship to the functions of the position, in accordance with A.R.S. § 13-904(E).

B. Code of Ethics. To enhance the quality of performance and the conduct and the behavior of correctional officers, a person appointed to be a correctional officer shall commit to the following Code of Ethics and shall affirm the commitment by signing the code, on a form designated by the Board:

"I shall maintain high standards of honesty, integrity, and impartiality, free from any personal considerations, favoritism, or partisan demands. I shall be courteous, considerate, and prompt when dealing with the public, realizing that I serve the public. I shall maintain mutual respect and professional cooperation in my relationships with other staff members.

I shall be firm, fair, and consistent in the performance of my duties. I shall treat others with dignity, respect, and compassion, and provide humane custody and care, void of all retribution, harassment, or abuse. I shall uphold the Constitutions of the United States and the state of Arizona, and all federal and state laws. Whether on or off duty, in uniform or not, I shall conduct myself in a manner that will not bring discredit or embarrassment to my agency or the state of Arizona.

I shall report without reservation any corrupt or unethical behavior that could affect either inmates, employees, or the integrity of my agency. I shall not use my official position for personal gain. I shall maintain confidentiality of information that has been entrusted to me and designated as such.

I shall not permit myself to be placed under any kind of personal obligation that could lead any person to expect official favors. I shall not accept or solicit from anyone, either directly or indirectly, any thing of economic value such as a gift, gratuity, favor, entertainment, or loan, that is or may appear to be, designed to influence my official conduct. I will not discriminate against any inmate, employee, or any member of the public on the basis of race, gender, creed, or national origin. I will not sexually harass or condone sexual harassment of any person. I shall maintain the highest standards of personal hygiene, grooming, and neatness while on duty or otherwise representing the state of Arizona."

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). Reference to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-203. Background Investigation

A. The Department shall conduct a background investigation before an applicant is admitted to the academy. The Department shall review the personal history statement submitted under subsection (B) and the results of the background investigation required in subsection (C) to determine that the person meets the requirements of R13-4-202, and that the person's personal history statement is accurate and truthful.

B. Personal history. An applicant shall complete and submit to the employing agency a personal history statement on a form prescribed by the Board. The history statement shall be completed before the start of the background investigation. It shall contain answers to questions required in subsection (C).

C. Investigative requirements. Before admitting an applicant to the academy, the Department shall collect, verify, and retain documents establishing that an applicant meets the standards specified in this Article. At a minimum, this documentation shall include:

1. Proof of the applicant's age and United States citizenship or eligibility to work in the United States. A copy of any of the following is acceptable proof:
   a. The applicant's birth certificate,
   b. United States passport,
   c. Certification of United States Naturalization,
   d. Certificate of Nationality, or
   e. Immigration Form I-151 or I-1551.
2. Proof of the applicant's valid Arizona driver's license. A copy of the applicant's Arizona driver's license, along with written verification of the driving record from the Arizona Department of Transportation, Motor Vehicle Division, is required proof.
3. Proof that the applicant is a high school graduate or its equivalent. The following are acceptable proof:
   a. A copy of a high school diploma, or graduation certificate;
   b. Successful completion of the Arizona General Education Development (G.E.D.) tests or successful completion of an equivalent test from another state, that meets or exceeds the Arizona Department of Education's requirement for G.E.D. testing;
   c. In the absence of proof of high school graduation or successful completion of G.E.D. tests,
      i. A copy of an Associate's Degree or transcript from an accredited college or university showing successful completion of high school equivalency;
      ii. A certificate issued by the United States Armed Forces Institute (U.S.A.F.I.) before December 31, 1974, showing successful completion of high school equivalency;
      iii. A United States Military Service Record DD Form 214-#4 with the Education block indicating high school completion, or
      iv. The applicant may submit other evidence of high school education equivalency for consideration by the Board.
4. Record of any military discharge. A copy of the Military Service Record (DD Form 214-#4) is acceptable proof.
5. Results of a psychological fitness assessment approved by the Director and conducted by a psychologist or psychiatrist designated by the Department.
6. Personal reference and previous employer inquiries. Information provided by at least three personal references

and all previous employers of the applicant for the past five years shall be documented by the Department.

7. Law enforcement agency records. The Department shall request and review law enforcement agency records in jurisdictions where the applicant has lived, worked, or attended school in the past five years. Information obtained shall be documented by the Department.
8. Results of the Department's query of the National Crime Information Center/Interstate Identification Index (NCIC/III), and the Arizona Criminal Information Center/Arizona Computerized Criminal History (ACIC/ACCH), or the equivalent for each state where the applicant has lived, worked, or attended school in the past five years and review of that criminal history record for any arrest or conviction to determine compliance with R13-4-202.
9. An applicant fingerprint card processed by the Arizona Department of Public Safety and the Federal Bureau of Investigation.
   a. The Department shall process an applicant fingerprint card for all cadets entering the academy, except as provided in subsections (C)(9)(b) and (C)(9)(c). Fingerprint cards shall be processed by the Department, even if the applicant has a processed applicant fingerprint card from a previous employer.
   b. If an applicant fingerprint card is not fully processed when the applicant is ready to enter the academy, the Department may allow the applicant to attend the academy if:
      i. A computerized criminal history check has been made and the results are on file with the Department, and
      ii. The applicant meets all other requirements of this Section and R13-4-202.
   c. If the Department has not received a fully processed fingerprint card within 15 weeks of the date of admission to the academy, the person does not meet the requirements of this Section. Upon receipt of a fully processed card, the person may be re-employed under R13-4-208.

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). Reference to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-204. Records and Reports

A. Reports. The Department shall submit to the Board a report by the Director attesting that each person completing the academy meets the requirements of R13-4-202.

B. Records. The Department shall make Department records available to the Board upon request of the Board or its staff. The Department shall keep the records in a central location. The Department shall maintain:
1. A copy of reports submitted under subsection (A);
2. All written documentation obtained or recorded under R13-4-202 and R13-4-203; and
3. A record of all advanced training, specialized training, continuing education, and firearms qualification conducted under R13-4-206 and R13-4-207.

C. Record retention. The Department shall maintain the records required by this Section as follows:
1. For applicants investigated under R13-4-203 who are not appointed: two years; and
2. For applicants who are appointed: five years from the date of appointment, except records retained under subsection (B)(3), shall be retained for three years.

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-205. Basic Training Requirements

A. Required training for state correctional officers. Before appointment as a state correctional officer, a person shall complete a Board-approved basic correctional officer training program. This program shall meet or exceed the requirements of this Section.

B. Curricula or training material approval time-frames.
1. For the purposes of A.R.S. § 41-1073, the Board establishes the following time-frames for curricula or training material that require Board approval under this Section and R13-4-206.
   a. Administrative completeness time-frame: 60 days.
   b. Substantive review time-frame: 60 days.
   c. Overall time-frame: 120 days.
2. The administrative completeness review time-frame begins on the date the Board receives the documents required by this Section or R13-4-206.
   a. Within 90 days, the Board shall review the documents and issue to the Department a statement of administrative completeness or a notice of administrative deficiencies that lists each item required by this Section that is missing.
   b. If the Board issues a notice of administrative deficiency, the Department shall submit the missing documents and information within 90 days of the notice. The administrative completeness time-frame is suspended from the date of the deficiency notice until the date the Board receives the missing documents and information.
   c. If the Department fails to provide the missing documents within the 90 days provided, the Board shall deny the approval.
   d. When the file is administratively complete, the Board shall provide written notice of administrative completeness to the Department.
3. The substantive review time-frame begins on the date the Board issues the notice of administrative completeness.
   a. During the substantive review time-frame, the Board may make one comprehensive written request for additional information.
   b. The Department shall submit to the Board the additional information identified in the request for additional information within 60 days. The time-frame for the Board to finish the substantive review of the application is suspended from the date of the request for additional information until the Board receives the additional information.
   c. The Board shall deny the approval if the additional information is not supplied within the 60 days provided.
   d. When the substantive review is complete, the Board shall grant or deny approval.

C. Basic course specifications.
1. The Department shall develop the curriculum for the basic correctional officer training program.
   a. The curriculum shall include courses in the following functional areas.
      i. Functional Area I - Ethics and Professionalism;
      ii. Functional Area II - Inmate Management;
      iii. Functional Area III - Legal Issues;
      iv. Functional Area IV - Communication Skills;

v. Functional Area V - Officer Safety, including firearms;
vi. Functional Area VI - Applied Skills;
vii. Functional Area VII - Security, Custody, and Control;
viii. Functional Area VIII - Conflict and Crisis Management; and
ix. Functional Area IX - Medical Emergencies, and Physical and Mental Health.

b. The curriculum shall also contain administrative time for orientation, counseling, testing, and remedial training.

2. Curriculum submitted to the Board for approval shall contain lesson plans that include:
   a. Course title,
   b. Hours of instruction,
   c. Materials and aids to be used,
   d. Instructional strategy,
   e. Topic areas in outline form,
   f. Success criteria, and
   g. The performance objectives or learning activities to be achieved.
3. After initial approval, the Director or the Director's designee shall annually review and approve each lesson plan used in the academy. The Director or the Director's designee shall sign and date an acknowledgment of approval for each lesson plan.
4. A performance objective shall consist of three components:
   a. The learner, which is an individual or group that performs a behavior as the result of instruction;
   b. The behavior, which is an observable demonstration by the learner at the end of instruction that shows that the objective is achieved and allows evaluation of the learner's capabilities relative to the behavior.
   c. The conditions, which is a description of the important conditions of instruction or evaluation under which the learner will perform the stated behavior. Unless specified otherwise, the instruction and evaluation shall be in written or oral form.
5. Instructors of basic correctional officer training courses shall meet instructor proficiency requirements developed by the Department and approved by the Board. Instructors shall be qualified by education, experience, or a combination of both, and shall be affirmed by the Department as having the necessary qualifications before delivering any instruction. In addition to these requirements, instructors of courses dealing with the proficiency skills of defensive tactics, physical conditioning, firearms, and medical emergencies shall complete specialized training developed by the Department and approved by the Board. Instructors shall use lesson plans described in subsection (C)(2).

D. Academic requirements.
1. Cadets shall be given any combination of written, oral, or practical demonstration examinations capable of measuring their attainment of the performance objectives in each approved lesson plan.
2. Academy staff shall review examination results and academic progress with cadets on a weekly basis. Academy staff shall ensure that cadets are aware of correct responses.
3. Cadets shall complete all examinations before graduating from the academy. To successfully complete a written or oral examination, a cadet shall have a score of at least 70 percent.
   a. For a student who receives a score of less than 70 percent, the academy shall provide the cadet with remedial training in areas of deficiency.
   b. The academy shall not offer more than one re-examination per lesson plan.
4. Each cadet shall qualify with firearms as specified in subsection (C). Firearms qualification shall include:
   a. 50-shot daytime or nighttime qualification course with service handgun. The minimum passing score is 210 points out of a possible 250 points;
   b. Seven-shot qualification course with service shotgun; and
   c. Target identification and discrimination course.
5. Each cadet shall meet success criteria described in the Board-approved curriculum for the proficiency skills of self-defense, physical conditioning, and medical emergencies, as approved under R13-4-205(C).
6. An academy shall provide cadets who do not attend a lesson with remedial training before graduation.
7. An academy shall not graduate a cadet who attends less than 90 percent of the total hours of basic training shall not graduate from the academy.

E. Exceptions. A cadet shall not function as a state correctional officer except:
1. As a part of an exercise within the approved basic training program at the academy, if the cadet is under the direct supervision and control of a state correctional officer; or
2. At the discretion of the Director, for the duration of an emergency situation including, but not limited to riots, insurrections, and natural disasters. A cadet shall not carry a firearm in the course of duty unless the cadet has successfully met the requirement of R13-4-205(D)(4).

F. Waiver of required training. The Board shall grant a complete or partial waiver of the required basic training, at the request of the Director, upon a finding by the Board that the best interests of the corrections profession are served and the public welfare and safety is not jeopardized by the waiver if:
1. An applicant successfully completes a basic corrections recruit training course comparable to or exceeding, in hours of instruction and subject matter, the Board-approved basic correctional officer training course and has a minimum of one year of experience as a correctional officer. Written verification of previous experience and training shall accompany the application;
2. An applicant meets the minimum qualifications specified in R13-4-202; and
3. An applicant successfully completes a comprehensive examination measuring comprehension of the basic correctional officer training course. The examination shall be prepared by the Department and approved by the Board. It shall include a written test and practical demonstrations of proficiency in firearms, physical conditioning, and defensive tactics.

G. Certificate of completion time-frame. The Board shall provide certificates of completion for each person named in the Director's attestation made under R13-4-204(A) within 30 days of Board receipt. The Board shall mail certificates of completion to the Director for distribution.

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-206. Continuing Training Including Firearms Qualification

A. Continuing training requirement.
1. A state correctional officer shall receive eight hours of Board-approved continuing training each calendar year beginning January 1, following the date the officer received certified status.
2. A state correctional officer authorized to carry a firearm shall qualify each calendar year after appointment beginning January 1, following the date the officer received certified status, on a Board-approved course of fire, under subsection (E). Firearms qualification shall not be used to satisfy the requirements of R13-4-206(B).

B. Continuing training requirements may be fulfilled by:
1. Advanced training programs, or
2. Specialized training programs.

C. Advanced training programs. The Department shall develop, design, implement, maintain, evaluate, and revise advanced training programs that include courses enhancing a correctional officer's knowledge, skills, or abilities for the job that the correctional officer performs. The courses within this program shall be approved by the Board and include advanced or remedial training in any topic listed in R13-4-205(C).

D. Specialized training programs. The Department shall develop, design, implement, maintain, evaluate, and revise specialized training programs that address a particular need of the Department and target a select group of officers. The courses within this program shall be approved by the Board and include topics different from those in the basic corrections training program or any advanced training programs.

E. Firearms qualification required. A correctional officer authorized to carry a firearm shall qualify to continue to be authorized to carry a firearm each calendar year beginning the year following the receipt of certified status by completing a Board prescribed firearms qualification course using a service handgun, service shotgun, and service ammunition, and a Board prescribed target identification and judgment course.
1. Firearms qualification course standards.
   a. A firearms qualification course is:
      i. A course prescribed under R13-4-205(C); or
      ii. A course determined by the Board to measure firearms competency at least as accurately as the course prescribed under R13-4-205(C).
   b. All courses shall include:
      i. A timed accuracy component;
      ii. A type and style of target that is equal to, or more difficult than the targets used under R13-4-205(C); and
      iii. Success criteria that are equal to, or more difficult than the success criteria used under R13-4-205(C).
2. Firearms target identification and judgment course standards.
   a. A firearms target identification and judgment course is:
      i. A course prescribed under R13-4-205(C); or
      ii. A course determined by the Board to measure target identification and judgment competency at least as accurately as those prescribed under R13-4-205(C).
   b. All courses shall include:
      i. A timed accuracy component;
      ii. A type and style of target discrimination that is equal to, or more difficult than, those used under R13-4-205(C); and
      iii. Success criteria that are equal to, or more difficult than, those used under R13-4-205(C),
3. All courses shall be presented by a firearms instructor meeting the requirements of R13-4-205(C)(5).

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). References to "Council" changed to "Board" (Supp. 94-3). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-207. Repealed

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). References to "Council" changed to "Board" (Supp. 94-3). Section repealed by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

R13-4-208. Re-employment of State Correctional Officers

A. A state correctional officer who terminates employment may be re-employed by the Department within two years from the date of termination if the person meets the requirements of R13-4-202 and R13-4-203, at the time of re-employment.

B. A state correctional officer who terminates employment may be re-employed by the Department if re-employment is sought more than two years but less than three years from the original date of termination, if the person meets the requirements of R13-4-202 and R13-4-203, at the time of re-employment, and completes the waiver provisions of R13-4-205(F).

C. A person who seeks re-employment more than three years from date of termination shall meet all the requirements of this Article at the time of re-employment.

Historical Note

Adopted effective December 16, 1992, filed June 16, 1992 (Supp. 82-2). Amended by final rulemaking at 8 A.A.R. 3201, effective July 11, 2002 (Supp. 02-3).

41-1821. Arizona peace officer standards and training board; membership; appointment; term; vacancies; meetings; compensation; acceptance of grants

A. An Arizona peace officer standards and training board is established that consists of thirteen members appointed by the governor. The membership shall include:

1. Two sheriffs, one appointed from a county having a population of two hundred thousand or more persons and the remaining sheriff appointed from a county having a population of less than two hundred thousand persons.
2. Two chiefs of city police, one appointed from a city having a population of sixty thousand or more persons and the remaining chief appointed from a city having a population of less than sixty thousand persons, as reflected by the most recent United States decennial census.
3. A college faculty member in public administration or a related field.
4. The attorney general.
5. The director of the department of public safety.
6. The director of the state department of corrections.
7. One member who is employed in administering county or municipal correctional facilities.
8. Two certified law enforcement officers with a rank of patrolman or sergeant, with one appointed from a county sheriff's office and the other from a city police department.
9. Two public members.

B. The governor shall appoint a chairman from among the members at its first meeting and every year thereafter, except that an ex officio member shall not be appointed chairman. The governor shall not appoint more than one member from the same law enforcement agency. No board member who was qualified when appointed becomes disqualified unless the member ceases to hold the office that qualified the member for appointment.

C. Meetings shall be held at least quarterly or upon the call of the chairman or by the written request of five members of the board or by the governor. A vacancy on the board shall occur when a member except an ex officio member is absent without the permission of the chairman from three consecutive meetings. The governor may remove a member except an ex officio member for cause.

D. The term of each regular member shall be three years unless a member vacates the public office which qualified the member for this appointment.

E. The board members are not eligible to receive per diem but are eligible to receive reimbursement for travel expenses pursuant to title 38, chapter 4, article 2.

F. On behalf of the board, the executive director may seek and accept contributions, grants, gifts, donations, services or other financial assistance from any individual, association, corporation or other organization having an interest in police training, and from the United States of America and any of its agencies or instrumentalities, corporate or otherwise. Only the executive director of the board may seek monies pursuant to this subsection. Such monies shall be deposited in the fund created by section 41-1825.

G. Membership on the board shall not constitute the holding of an office, and members of the board shall not be required to take and file oaths of office before serving on the board. No member of the board shall be disqualified from holding any public office or employment nor shall such member forfeit any such office or

employment by reason of such member's appointment, notwithstanding the provisions of any general, special or local law, ordinance or city charter.

41-1822. Powers and duties of board; definition

A. With respect to peace officer training and certification, the board shall:

1. Establish rules for the government and conduct of the board, including meeting times and places and matters to be placed on the agenda of each meeting.

2. Make recommendations, consistent with this article, to the governor, the speaker of the house of representatives and the president of the senate on all matters relating to law enforcement and public safety.

3. Prescribe reasonable minimum qualifications for officers to be appointed to enforce the laws of this state and the political subdivisions of this state and certify officers in compliance with these qualifications. Notwithstanding any other law, the qualifications shall require United States citizenship, shall relate to physical, mental and moral fitness and shall govern the recruitment, appointment and retention of all agents, peace officers and police officers of every political subdivision of this state. The board shall constantly review the qualifications established by this section and may amend the qualifications at any time, subject to the requirements of section 41-1823.

4. Prescribe minimum courses of training and minimum standards for training facilities for law enforcement officers. Only this state and political subdivisions of this state may conduct basic peace officer training. Basic peace officer academies may admit individuals who are not peace officer cadets only if a cadet meets the minimum qualifications established by paragraph 3 of this subsection. Training shall include:

(a) Courses in responding to and reporting all criminal offenses that are motivated by race, color, religion, national origin, sexual orientation, gender or disability.

(b) Training certified by the director of the department of health services with assistance from a representative of the board on the nature of unexplained infant death and the handling of cases involving the unexplained death of an infant.

(c) Medical information on unexplained infant death for first responders, including awareness and sensitivity in dealing with families and child care providers, and the importance of forensically competent death scene investigations.

(d) Information on the protocol of investigation in cases of an unexplained infant death, including the importance of a consistent policy of thorough death scene investigation.

(e) The use of the infant death investigation checklist pursuant to section 36-3506.

(f) If an unexplained infant death occurs, the value of timely communication between the medical examiner's office, the department of health services and appropriate social service agencies that address the issue of infant death and bereavement, to achieve a better understanding of these deaths and to connect families to various community and public health support systems to enhance recovery from grief.

5. Recommend curricula for advanced courses and seminars in law enforcement and intelligence training in universities, colleges and community colleges, in conjunction with the governing body of the educational institution.

6. Make inquiries to determine whether this state or political subdivisions of this state are adhering to the standards for recruitment, appointment, retention and training established pursuant to this article. The failure of this state or any political subdivision to adhere to the standards shall be reported at the next regularly scheduled meeting of the board for action deemed appropriate by that body.
7. Employ an executive director and other staff as are necessary to fulfill the powers and duties of the board in accordance with the requirements of the law enforcement merit system council.
B. With respect to state department of corrections correctional officers, the board shall:
1. Approve a basic training curriculum of at least two hundred forty hours.
2. Establish uniform minimum standards. These standards shall include high school graduation or the equivalent and a physical examination as prescribed by the director of the state department of corrections.
3. Establish uniform standards for background investigations, including criminal histories under section 41-1750, of all applicants before enrolling in the academy. The board may adopt special procedures for extended screening and investigations in extraordinary cases to ensure suitability and adaptability to a career as a correctional officer.
4. Issue a certificate of completion to any state department of corrections correctional officer who satisfactorily complies with the minimum standards and completes the basic training program. The board may issue a certificate of completion to a state department of corrections correctional officer who has received comparable training in another state if the board determines that the training was at least equivalent to that provided by the academy and if the person complies with the minimum standards.
5. Establish continuing training requirements and approve curricula.
C. With respect to peace officer misconduct, the board may:
1. Receive complaints of peace officer misconduct from any person, request law enforcement agencies to conduct investigations and conduct independent investigations into whether an officer is in compliance with the qualifications established pursuant to subsection A, paragraph 3 of this section.
2. Receive a complaint of peace officer misconduct from the president or chief executive officer of a board recognized law enforcement association that represents the interests of certified law enforcement officers if the association believes that a law enforcement agency refused to investigate or made findings that are contradictory to prima facie evidence of a violation of the qualifications established pursuant to subsection A, paragraph 3 of this section. If the board finds that the law enforcement agency refused to investigate or made findings that contradicted prima facie evidence of a violation of the qualifications established pursuant to subsection A, paragraph 3 of this section, the board shall conduct an independent investigation to determine whether the officer is in compliance with the qualifications established pursuant to subsection A, paragraph 3 of this section and provide a letter of the findings based on the investigation conducted by the board to the president or chief executive officer of the board recognized law enforcement association who made the complaint.
D. The board may:

1. Deny, suspend, revoke or cancel the certification of an officer who is not in compliance with the qualifications established pursuant to subsection A, paragraph 3 of this section.
2. Provide training and related services to assist state, tribal and local law enforcement agencies to better serve the public.
3. Enter into contracts to carry out its powers and duties.
E. This section does not create a cause of action or a right to bring an action, including an action based on discrimination due to sexual orientation.
F. For the purposes of this section, "sexual orientation" means consensual homosexuality or heterosexuality.

41-1823. Adoption of minimum qualifications; certification required
A. No minimum qualifications for law enforcement officers adopted pursuant to this article shall be effective until six months after they have been filed with the secretary of state pursuant to section 41-1031.
B. Except for agency heads duly elected as required by the constitution and persons given the authority of a peace officer pursuant to section 8-205, 11-572, 12-253, 13-916 or 22-131, no person may exercise the authority or perform the duties of a peace officer unless he is certified by the board pursuant to section 41-1822, subsection A, paragraph 3.

41-1824. Training expenditures
In exercising its powers and duties, the board shall endeavor to minimize costs of administration, including utilization of training facilities already in existence and available, so that the greatest possible proportion of the funds available to it shall be expended for the purposes of providing training for local law enforcement officers.

41-1825. Peace officers' training fund
A. A special fund designated as the peace officers' training fund is established. All monies deposited in the fund are continuously appropriated to the department of public safety for the benefit of the board. The monies shall be used exclusively for the costs of training peace officers, including Indian tribe police officers who are training to be qualified pursuant to section 13-3874 and full authority peace officers who are appointed by the director of the state department of corrections and the director of the department of juvenile corrections, for grants to state agencies, counties, cities and towns of this state for peace officer training and for expenses for the operation of the board. No peace officers' training fund monies may be spent for training correctional officers of the state department of corrections.
B. All amounts to be paid or advanced from the fund shall be on warrants drawn by the department of administration on presentation of a proper claim or voucher that is approved and signed by the executive director.
C. The executive director shall lawfully disburse monies as approved by the board.
D. The board may use and the department of public safety shall provide to the board administrative support services. The board shall reimburse the department

for expenses incurred for administrative support services. This subsection does not require the department to provide administrative support services that are different in kind from those that were provided on January 1, 2000. For the purposes of this subsection, "administrative support services" includes all services relating to business office, finance and procurement, information management and technology, fleet, human resources, supply, telecommunications, facilities, security and clerical and administrative assistance personnel.

41-1826. Arizona law enforcement training academy; former property; title transfer
A. Notwithstanding any law to the contrary and for the benefit of the board, the department of public safety shall transfer to the state department of corrections the title to the property that was formerly known as the Arizona law enforcement training academy and that is operated as the correctional officer training academy in Tucson.
B. If at any time after title is transferred the state department of corrections leases or sells the property, the proceeds from the lease or sale shall be deposited, pursuant to sections 35-146 and 35-147, as follows:
1. 53.66 per cent of the proceeds or 53.66 per cent of the fair market value, whichever is greater, in the peace officers' training fund established by section 41-1825.
2. 46.34 per cent of the proceeds or 46.34 per cent of the fair market value, whichever is greater, in the state general fund.

41-1827. Application for grants
Any state agency, county, city or town which desires to receive a grant pursuant to section 41-1825 shall make application to the board for such aid. The application shall contain such information as the board may request.

41-1828. Allocation of monies
A. On the recommendation of the board, the executive director shall allocate and the state treasurer shall pay from the peace officers' training fund to each county, city or town of this state that has applied and qualified for a grant pursuant to this chapter a sum that will reimburse the political subdivision in an amount not to exceed one-half of the salary paid to each peace officer while participating in training. The cost of the training and living and travel expenses up to the maximum as prescribed by title 38, chapter 4, article 2 that are incurred by state, county, city or town officers while participating in training may be paid to the appropriate state agency or political subdivision.
B. If the monies in the peace officers' training fund budgeted by the board for such salary reimbursement are insufficient to allocate such amount to each participating county, city or town, the amount that is allocated to each shall be reduced proportionately. The board may refuse to allocate monies to any state agency, county, city or town that has not, throughout the period covered by the allocation, adhered to the recruitment and training standards established by the board as

applicable to personnel recruited or trained by the state agency, county, city or town during the allocation period.

41-1828.01. Required law enforcement agency reporting

A. A law enforcement agency may report to the board any peace officer misconduct in violation of the rules for retention established pursuant to section 41-1822, subsection A, paragraph 3 at any time and shall report this misconduct on the peace officer's termination, resignation or separation from the agency.

B. On request of a law enforcement agency conducting a background investigation of an applicant for the position of a peace officer, another law enforcement agency employing, previously employing or having conducted a complete or partial background investigation on the applicant shall advise the requesting agency of any known misconduct in violation of the rules for retention established pursuant to section 41-1822, subsection A, paragraph 3.

C. Civil liability may not be imposed on either a law enforcement agency or the board for providing information specified in subsections A and B of this section if there exists a good faith belief that the information is accurate.

ARIZONA STATE BOARD OF DENTAL EXAMINERS (R-16-0204)

Title 4, Chapter 11, Article 2, Licensure by Credential; Article 3, Examinations, Licensing Qualifications, Application and Renewal, Time-Frames

Amend: R4-11-201; R4-11-202; R4-11-203; R4-11-204; R4-11-301; R4-11-303; R4-11-304; R4-11-305

Repeal: R4-11-302

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-4**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Chris Kleminich, Staff Attorney

DATE: January 15, 2016

SUBJECT: **ARIZONA STATE BOARD OF DENTAL EXAMINERS (R-16-0204)**
Title 4, Chapter 11, Article 2, Licensure by Credential; Article 3, Examinations, Licensing Qualifications, Application and Renewal, Time-Frames

Amend: R4-11-201; R4-11-202; R4-11-203; R4-11-204; R4-11-301; R4-11-303; R4-11-304; R4-11-305

Repeal: R4-11-302

General Comments

Purpose of the Agency and Summary of What the Rulemaking Does

The purpose of the Arizona State Board of Dental Examiners (Board) is to "promote the safe and professional practice of dentistry in this state." Laws 2015, Ch. 315, § 19.

This rulemaking amends eight rules, and repeals one rule, in A.A.C. Title 4, Chapter 11, Articles 2 and 3. The Board is taking this action in response to a five-year-review report on these articles, approved by the Council on October 4, 2011.

Article Contents, Including the Subject Matter of Each Rule Affected

Article 2 contains five rules, four of which are affected by this rulemaking, that relate to licensure by credential. The rules address clinical examinations and requirements; dental licensure by credential and application; dental hygienist licensure by credential and application; dental assistant radiography certification by credential; and application for dental assistant radiography certification by credential.

Article 3 contains five rules, all of which are affected by this rulemaking, that relate to examinations, licensing qualifications, application and renewal, and time-frames. The rules

address applications; determination of successful completion of licensure examinations; application processing procedures: issuance, denial, and renewal of dental licenses, restricted permits, dental hygiene licenses, dental consultant licenses, denturist certificates, drug or device dispensing registrations, and business entity registrations; application processing procedures: issuance and denial of dental assistant certificates; and application processing procedures: issuance, denial, and renewal of general anesthesia and semi-conscious sedation permits, conscious sedation permits, and oral conscious sedation permits.

Year that Each Rule was Last Amended or Newly Made

Sections 301, 303, and 305 were last amended on April 2, 2005. The rules in Article 2 were last amended on November 8, 2003. Sections 302 and 304 were last amended on February 4, 1999.

Proposed Action

The following is a non-exhaustive summary of the actions being taken by the Board in this rulemaking:

- Section 201: Subsection (A)(1), related to the consideration of applications for licensure by credential at the next scheduled Board meeting, is being deleted, as the Board has delegated much of its authority for the issuance of licenses to the Executive Director. The Board reviews applications with disclosures. Subsection (A)(2)(c), which allowed for a detailed report prepared by a Board-recognized organization as a way to demonstrate satisfactory completion of a clinical examination, is being deleted. Clarifying changes are also being made.
- Section 202: Clarifying changes are being made.
- Section 203: The Board is mirroring the Dental Hygienist Licensure by Credential Application with the Dental Licensure by Credential Application. Text is being deleted from subsection (A), as it is duplicative of A.R.S. § 32-1284. Clarifying changes are also being made.
- Section 204: Clarifying changes are being made.
- Section 301: Under subsection (A)(3), the Board will now accept a verified third-party transcript provider for dental, dental hygiene, or denturist transcripts. Subsection (A)(4), regarding proof of dental hygiene clinical examination, is being updated to be consistent with A.R.S. § 32-1285. Subsection (A)(6) will now require a “healthcare provider level” CPR certificate for applicants. Subsection (A)(7) will allow license verifications from other states to be accepted without being sent directly to the Board. Subsection (A)(9) is being clarified, as it will note that denturist applicants need a Health Integrity and Protection Data Bank report. Clarifying changes are also being made.
- Section 302: The rule is being repealed, as the Board no longer gives examinations.
- Section 303: Mobile dental facility and portable dental unit permits are being added to the Board’s licensing time-frame rules. In addition, the amount of time that the 90-day substantive review time-frame may be extended is being decreased from 45 days to 28 days, in accordance with A.R.S. § 41-1075(B).
- Section 304: Clarifying changes are being made.

- Section 305: The names of anesthesia and sedation permits are being updated. In addition, the amount of time that the 120-day substantive review time-frame may be extended is being decreased from 60 days to 36 days, in accordance with A.R.S. § 41-1075(B). Clarifying changes are also being made.

Summary of Reasons for the Proposed Action

The Board believes that this rulemaking will benefit the public health and safety by more clearly establishing the procedures for licensure by credential, examinations, licensing qualifications, application and renewal, and time-frames.

Exemption or Request and Approval for Exception from the Moratorium

The Board received an exception from Executive Order 2015-01 on July 9, 2015.

Substantive or Procedural Concerns

None.

1. Are the rules legal, consistent with legislative intent, and within the agency's statutory authority?

Yes. As general authority for the rules, the Board cites to A.R.S. § 32-1207 which provides, in part, that the Board shall "[a]dopt rules not inconsistent with this chapter [Title 32, Chapter 11, Dentistry] for the regulation of its own conduct, for holding examinations and for regulating the practice of dentists and supervised personnel".

As specific authority for the rules, the Board cites to a number of its statutes, all of which demonstrate that the Board has authority to regulate in the areas that are covered by these rules.

2. Are the rules written in a manner that is clear, concise, and understandable to the general public?

Yes. The rules are clear, concise, and understandable.

3. Does the agency adequately address the comments on the proposed rules and any supplemental proposals?

Yes. The Board did not receive any comments on the rulemaking.

4. Are the final rules a substantial change, considered as a whole, from the proposed rules and any supplemental proposals?

No. After Council staff noted that the substantive review time-frame extension periods in R4-11-303(E)(5) and R4-11-305(E)(5) violated A.R.S. § 41-1075(B), as they exceeded 25 percent of the overall time-frame, the Board amended the rules accordingly. As the amendments

are only intended to bring the rules into compliance with statute, and because the changes are minor when considering the rulemaking as a whole, staff does not believe that the changes are substantial. Non-substantive technical changes have also been made by the Board.

5. Does the preamble disclose a reference to any study relevant to the rules that the agency reviewed and either did or did not rely on in the agency's evaluation of or justification for the rules?

No. The Board indicates that it did not review or rely upon any study for the rulemaking.

6. Are the rules more stringent than corresponding federal law and, if so, is there statutory authority that allows the agency to exceed the requirements of federal law?

No. The Board indicates that no federal laws directly correspond to the rules.

7. Do the rules require a permit or license and if so, does the agency use a general permit or is any exception applicable under A.R.S. § 41-1037?

Yes. The Board is required to issue licenses or certificates as specified under A.R.S. §§ 32-1234, 32-1240, and 32-1292.01. These licenses and certificates arguably fall within the definition of "general permit" in A.R.S. § 41-1001, as they are issued to qualified individuals to conduct activities that are substantially similar in nature.

8. Do the rules establish a new fee or contain a fee increase?

No. The rules do not establish a new fee or contain a fee increase.

9. Conclusion

The Board requests the usual 60-day delayed effective date for the rules. This analyst recommends approval of the rules.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-4**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA STATE BOARD OF DENTAL EXAMINERS (R-16-0204)**
Title 4, Chapter 11, Article 2, Licensure by Credential; Article 3, Examinations, Licensing Qualifications, Application and Renewal, Time-Frames

Amend: R4-11-201; R4-11-202; R4-11-203; R4-11-204; R4-11-301; R4-11-303; R4-11-304; R4-11-305

Repeal: R4-11-302

I reviewed the economic, small business, and consumer impact statement (EIS) and make the following comments. These comments are made to assist the Council in its review and may be used as the Council determines.

GRRC Economist comments:

The amendments are intended to allow the Board to conform to statutory changes, and to comply with revisions recommended in Board's previous five-year-review report. The amendments seek to improve the clarity of the administrative and procedural aspects of the rules. As of November 2015, active licenses and registrations governed by the board included 4,701 dentist licenses, 4,260 dental hygienist licenses, 12 denturist licenses, 15 dental consultant licenses, and 326 business entity registrations.

The Board has certified that the Joint Legislative Budget Committee has not been notified because the number of new full-time employees necessary to implement and enforce the rule is zero. Notice of new FTEs is required by A.R.S. § 41-1055(B)(3)(a).

1. **Costs and Benefits for:**

a. The implementing agency:

The amendments will result in minimal implementation costs for the Board, and will benefit the Board by adding clarity and consistency to the rules.

b. Political subdivisions:

The Board indicates that the amendments will have no impact on political subdivisions.

c. Businesses:

Only small businesses are directly affected by this rulemaking.

d. Small businesses:

The amendments are not anticipated to result in compliance costs for small businesses, but will result in benefits due to increased clarity and understandability. The 326 business entities registered with the Board are all small businesses.

e. Consumers directly affected by the rulemaking:

The public and consumers are not directly affected by this rulemaking.

2. Do the probable benefits outweigh the probable costs?

Based on the information provided, the Board indicates that the benefits to amending the rules outweigh the probable costs. As discussed above, the amendments reduce the regulatory burden by adding additional clarity and consistency with state statutes.

3. Analysis of methods to reduce the small business impact:

The Board indicates that the amendments are designed to have the least impact possible on small business, while still allowing the Board to fulfill its statutory responsibilities.

4. The probable effect on state revenues:

The Board anticipates that the amendments will have no impact on state revenues.

5. Analysis of any less intrusive or less costly alternative methods:

The Board did not consider other alternatives, because the amendments represent the most cost effective and efficient method of complying with statutory changes and its proposed actions in five-year-review reports.

6. Whether an analysis was submitted to the agency regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states:

No business competitiveness analysis was submitted to the Board.

7. A description of any data on which a rule is based with an explanation of how the data was obtained and why the data is acceptable data, and the methods used by the agency to evaluate the costs and benefits in the EIS.

The Board indicates that no outside data or studies were used in the development of the rules.

8. Conclusion:

The submitted economic, small business and consumer impact statement is generally accurate, and contains the information required for compliance with A.R.S. §§ 41-1035, 41-1052(D)(1-3), and 41-1055. This analyst recommends that the rules be approved.

ARIZONA STATE BOARD OF DENTAL EXAMINERS
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Telephone (602) 242-1492 • Fax (602) 242-1445
www.azdentalboard.us

December 21, 2015

Nicole A. Ong, Chair
Governor's Regulatory Review Council
100 N. 15th Ave. #402
Phoenix, AZ 85007

SUBJECT: A.A.C. Title 4, Articles 2 and 3: submission of final rule for Council review and approval pursuant to A.R.S. § 41-1052.

Dear Ms. Ong:

Subject to approval by the Governor's Regulatory Review Council (GRRC), the Board of Dental Examiners approved the above-referenced rules at a regularly scheduled Board meeting held in compliance with Arizona statutes on December 4, 2015. The close of record was at 5:00 p.m. on October 19, 2015.

The Board's Septemeber 6, 2011 five-year rule review identified necessary amendments to AAC Title 4, Chapter 11, Article 2 Licensure by Credential, Article 3 Examinations Licensing Qualifications, Application and Renewal, and Time-Frames. The five-year rule review proposed the following actions:

- Repeals the consideration of an application for licensure by credential at the next scheduled Board meeting in AAC R4-11-201. When licensure by credential was enacted, the Board reviewed every application. The Board has delegated the issuance of licenses to the Executive Director. Now the Board reviews applications with disclosures.
- For consistency, adds United States territory and District of Columbia throughout Article 2.
- Repeals R4-11-201(A)(2)(c) which required a detailed report prepared by a Board recognized organization (PBIS). The Committee agreed that it was impossible to compare an older exam with present day WREB. The Board began reviewing comparison reports in 2003. Since that time, the Board not denied licensure based on the comparison report.
- Amend R4-11-203(A) & (B) Dental Hygienist Licensure by Credential; Application to mirror R4-11-202(A) & (B) Dental Licensure by Credential; Application. The repealed text in R4-11-203(A) currently exists in Arizona Revised Statutes § 32-1284.
- Adds accepting a verified third-party transcript provider for dental, dental hygiene or denturist transcripts to R4-11-301(A)(3). At the April 11, 2014 meeting, the Board voted to open a docket for this amendment.
- Amendment to R4-11-301(A)(4) updates language regarding proof of dental hygiene clinical examination taken within the last five years to match ARS § 32-1285, amended in 2013.
- Amend R4-11-301(A)(6) to require Healthcare Provider CPR for applicants. Healthcare Provider CPR is required to renew a license.
- Amend R4-11-301(A)(7) to allow license verifications from other states to be accepted without being sent directly to the Board. More and more states are using electronic methods of transmitting verifications of licensure. Indiana was the first state to send digital verifications and two more states have recently contacted the Board to set up retrieval of their digital verifications.
- Amends R4-11-301(A)(9) to clarify that denturist applicants need a Health Integrity and Protection Data Bank report.
- Repeals R4-11-302 – Determination of Successful Completion of Licensure Examinations. The Board no longer gives examinations.
- Adds Mobile Dental Facility and Portable Dental Unit Permits to R4-11-303 License Timeframe Rules
- Updates R4-11-304 to clarify Radiography Certification by Credential.

- Amendment to R4-11-305 updates names of anesthesia and sedation permits.

On July 9, 2015, the agency received an exemption to the rulemaking moratorium to proceed with this rulemaking from Ted Vogt, Chief of Operations of the Office of the Arizona Governor (see attahed letter).

The Board published a Notice of Rulemaking Docket Opening regarding this issue on September 18 2015 and published a Notice of Proposed Rulemaking on September 18, 2015. A public hearing was held October 19, 2015. No one attended the hearing and no written comments were received.

The preamble discloses a reference to any study relevant to the rule that the Board reviewed and either did or did not rely on in its evaluation of or justification for the rule. The Board is not requesting an immediate effective date for the rule. The rule does not contain any new fees or fee increases. The Board did not notify JLBC, as there is no need for new full-time employees to implement and enforce the rule. The rule does require a license, permit, or certificaion. No analysis was submitted to the Board that compares the rule's impact of the competitiveness of businesses in this state to the impact on businesses in other states. This rulemaking relates to the five-year rule review report approved by GRRC on September 6, 2011.

The enclosures include the statutory and administrative rule definitions used in the approved rule.

Sincerely,

Elaine Hugunin

Elaine Hugunin
Executive Director

EH/dw
Enclosures: Two copies of the following:
Notice of Final Rulemaking, including the preamble
Table of contents for the approved rule
Text of the approved rule
Economic Impact Statement
Letter dated July 9, 2015 Approving Rulemaking Moratorium Exemption
Definition of terms

NOTICE OF FINAL RULEMAKING

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 11. STATE BOARD OF DENTAL EXAMINERS

PREAMBLE

1.	**Articles, Parts, or Sections Affected**	**Rulemaking Action**
	R4-11-201	Amend
	R4-11-202	Amend
	R4-11-203	Amend
	R4-11-204	Amend
	R4-11-301	Amend
	R4-11-302	Repeal
	R4-11-303	Amend
	R4-11-304	Amend
	R4-11-305	Amend

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statute: A.R.S. § 32-1207

Implementing statute: A.R.S. §§ 32-1232, 32-1233, 32-1234(A) and (E), 32-1240, 32-1284(A) and (B), 32-1285, and 32-1292.01

3. The effective date of the rule:

The rule is effective 60 days after the date the final rule is filed with the Secretary

of State.

4. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the proposed rule:

Notice of Rulemaking Docket Opening: 21 A.A.R. 1988, September 18, 2015

Notice of Proposed Rulemaking: 21 A.A.R. 1887, September 18, 2015

5. The agency's contact person who can answer questions about the rulemaking:

Name: Elaine Hugunin, Executive Director

Address: State Board of Dental Examiners

4205 N. 7th Ave., Suite 300

Phoenix, AZ 85013

Telephone: (602) 542-4493

Fax: (602) 242-1445

E-mail: elaine.hugunin@azdentalboard.us

Website: www.dentalboard.az.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

The Five-Year rule review identified necessary amendments to AAC Title 4, Chapter 11, Article 2 Licensure by Credential, Article 3 Examinations Licensing Qualifications, Application and Renewal, and Time-Frames. The Board has proposed the following changes to AAC Articles listed above:

- Repeals the consideration of an application for licensure by credential at the next

scheduled Board meeting in AAC R4-11-201. When licensure by credential was enacted, the Board reviewed every application. The Board has delegated the issuance of licenses to the Executive Director. Now the Board reviews applications with disclosures.

- For consistency, adds United States territory and District of Columbia throughout Article 2.
- Repeals R4-11-201(A)(2)(c) which required a detailed report prepared by a Board recognized organization (PBIS). The Committee agreed that it was impossible to compare an older exam with the present day Western Regional Examining Board (WREB) exam. The Board began reviewing comparison reports in 2003. Since that time, the Board not denied licensure based on the comparison report.
- Amend R4-11-203(A) & (B) Dental Hygienist Licensure by Credential; Application to mirror R4-11-202(A) & (B) Dental Licensure by Credential; Application. The repealed text in R4-11-203(A) currently exists in Arizona Revised Statutes § 32-1284.
- Adds accepting a verified third-party transcript provider for dental, dental hygiene or denturist transcripts to R4-11-301(A)(3). At the April 11, 2014 meeting, the Board voted to open a docket for this amendment.
- Amendment to R4-11-301(A)(4) updates language regarding proof of dental hygiene clinical examination taken within the last five years to match ARS § 32-1285, amended in 2013.
- Amend R4-11-301(A)(6) to require Healthcare Provider CPR for applicants. Healthcare Provider CPR is required to renew a license.

- Amend R4-11-301(A)(7) to allow license verifications from other states to be accepted without being sent directly to the Board. More and more states are using electronic methods of transmitting verifications of licensure. Indiana was the first state to send digital verifications and two more states have recently contacted the Board to set up retrieval of their digital verifications.
- Amends R4-11-301(A)(9) to clarify that denturist applicants need a Health Integrity and Protection Data Bank report.
- Repeals R4-11-302 – Determination of Successful Completion of Licensure Examinations. The Board no longer gives examinations.
- Adds Mobile Dental Facility and Portable Dental Unit Permits to R4-11-303 License Timeframe Rules
- Updates R4-11-304 to clarify Radiography Certification by Credential.
- Amendment to R4-11-305 updates names of anesthesia and sedation permits.

The rule will include format, style, and grammar necessary to comply with the current rules of the Secretary of State.

The Board believes that approval of these rules will benefit the public health and safety by clearly establishing the procedures for licensure by credential, examinations, licensing qualifications, application and renewal, and time-frames.

7. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data

underlying each study, and any analysis of each study and other supporting material:

The agency did not review or rely on any study relevant to the rule.

8. A showing of good cause why the rules are necessary to promote a statewide interest if the rules will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. The summary of the economic, small business, and consumer impact:

The amended rule will impact the Board, licensees and the public.

The amended rule's impact on established Board of Dental Examiners' procedures and office related costs is minimal. The rule's net economic impact for the Board is minimal.

The Board estimates the amended rule will have minimal economic impact on licensees. The cost to the individual or entity is minimal.

The amended rule has no economic impact on the public.

The Board, licensees, and the public benefit from rules that are clear, concise, and understandable. The Board believes that approval of these rules will benefit the public health and safety by clearly establishing the procedures for licensure by

credential, examinations, licensing qualifications, application and renewal, and time-frames.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

There are no substantial changes in the final rules from the proposed rules. In R4-11-203, we need to strike the "A" at the beginning of the text, because the "B" text is being deleted, and the "; and" after the word "Article" needs to be stricken, as it is not necessary without the "B" subsection. In R4-11-303(E)(5) and R4-11-305(E)(5), the substantive review time-frame extension period exceeds the statutory allowance of 25 percent of the overall time-frame period in A.R.S. § 41-1075(B). The time-frame extenstions are changed to 28 days and 36 days respectively. Those non-substantive changes have been made in the Notice of Final Rulemaking. Minor changes to style, format, grammar, and punctuation were made as requested by GRRC staff.

11. An agency's summary of the public stakeholder comments made about the rulemaking and the agency response to the comments:

A public hearing was held October 19, 2015. No one attended the hearing and no written comments were received.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

Not applicable

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The rules require the Board to issue a license or certificate as specified under A.R.S. §§ 32-1234, 32-1240, and 32-1292.01. This license or certificate arguably falls within the definition of general permit in A.R.S. §§ 41-1001 and 41-1037. The Board chooses to issue the specific license or certificate as required by our statutes.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The agency has determined that there is no corresponding federal law.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

None

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the *Register* as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

No

15. The full text of the rules follows:

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 11. STATE BOARD OF DENTAL EXAMINERS

ARTICLE 2. LICENSURE BY CREDENTIAL

R4-11-201. Clinical Examination: Requirements

R4-11-202. Dental Licensure by Credential: Application

R4-11-203. Dental Hygienist Licensure by Credential: Application

R4-11-204. Dental Assistant Radiography Certification by Credential

ARTICLE 3. EXAMINATIONS, LICENSING QUALIFICATIONS, APPLICATION AND RENEWAL, TIME-FRAMES

R4-11-301. Application

~~R4-11-302. Determination of Successful Completion of Licensure Examination~~

R4-11-303. Application Processing Procedures: Issuance, Denial, and Renewal of Dental Licenses, Restricted Permits, Dental Hygiene Licenses, Dental Consultant Licenses, Denturist Certificates, Drug or Device Dispensing Registrations, ~~and~~ Business Entity Registration, and Mobile Dental Facility and Portable Dental Unit Permits

R4-11-304. Application Processing Procedures: Issuance and Denial of Dental Assistant Certificates Radiography Certification by Credential

R4-11-305. Application Processing Procedures: Issuance, Denial, and Renewal of General Anesthesia and ~~Semi-conscious~~ Deep Sedation Permits, ~~Conscious~~ Parenteral Sedation Permits, ~~and~~ Oral ~~Conscious~~ Sedation Permits, and Permit to Employ a Physician Anesthesiologist or CRNA

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 11. STATE BOARD OF DENTAL EXAMINERS

ARTICLE 2. LICENSURE BY CREDENTIAL

R4-11-201. Clinical Examination; Requirements

A. ~~The Board shall:~~

~~1. Consider an application for licensure at the next scheduled Board meeting after the application is administratively complete.~~

~~2~~ If an applicant is applying under A.R.S. §§ 32-1240(A) or 32-1292.01(A), the Board shall ensure that the applicant has passed the clinical examination of another state, United States territory, District of Columbia or a regional testing agency. ~~that maintains a standard of licensure determined by the Board to be substantially equivalent to that of Arizona based on review of any one of the following forms of evidence that are satisfactory to the Board~~ Satisfactory completion of the clinical examination may be demonstrated by one of the following:

~~a~~ 1. Certified documentation, sent directly from another state, United States territory, District of Columbia or a regional testing agency, that ~~shows that~~ confirms successful completion of the clinical examination or multiple examinations ~~the applicant~~ ~~passed are Board-approved and~~ administered by the state, United States territory, District of Columbia or regional testing agency. The certified documentation shall contain the name of the applicant, date of examination or examinations~~, total score for each examination, name of any separately scored component of the examination, and separate scores~~

~~for each component~~ and proof of a passing score; or

~~b~~2. Certified documentation sent directly from another state, United States territory or District of Columbia dental board that shows the applicant passed that state's, United States territory's or District of Columbia's clinical examination before that state's, United States territory's or District of Columbia's participation in a regional examination. The certified documentation shall contain the name of applicant, date of examination or examinations~~, total score for each examination, name of any separately-scored component of the examination and separate scores for each component~~ and proof of a passing score~~;~~. ~~or~~

~~c. A detailed report prepared by a Board-recognized organization capable of assessing whether a clinical examination submitted maintains all of the following clinical examination elements in Arizona's standard of licensure:~~

~~i. The purposes, interpretations, and uses of the clinical examination are clearly stated in order to make appropriate pass or fail decisions.~~

~~ii. The knowledge, skills, and abilities that are important in the clinical practice of dentistry or dental hygiene are identified.~~

~~iii. Examination specifications provide a detailed description of the content of the examination and specify the scorable tasks that are used to evaluate each discipline. The specifications should include scoring weights associated with each content area.~~

~~iv. Policies and procedures are defined and published to standardize examination administration. This administrative protocol addresses legal~~

~~issues and fair testing practices.~~

~~v. The state or testing agency provides candidates with clear and comprehensive information about the examination program, including application requirements, examination content, performance expectations, reporting of results, and an appeals process.~~

~~vi. Policies for examiner selection and retention are defined and published.~~

~~vii. An examiner training program is established and implemented. The program introduces examiners to appropriate applications of the agency's evaluation criteria and assesses their ability to apply the criteria. The methodology of examiner standardization and its results are documented.~~

~~viii. Post-examination analyses are routinely conducted. Reliability and other factors affecting validity are investigated.~~

~~ix. A program is developed and implemented for on-going evaluation of examiner ratings. The examining agency provides examiners with feedback on their individual rating performance. Policies and procedures are defined for remediation or discontinuance of examiners based on analyses of their performance.~~

B. An applicant shall meet the licensure requirements in R4-11-301 and R4-11-303. ~~The applicant is exempt from complying with R4-11-301(A)(4)~~

R4-11-202. Dental Licensure by Credential; Application

A. A dentist applying under A.R.S. § 32-1240(A) shall comply with all other applicable requirements in A.R.S. Title 32, Chapter 11 and this Article.

B. A dentist applying under A.R.S. § 32-1240(A)(1) shall:

1. Have a current dental license in another state, territory or district of the United States;
2. Submit a written affidavit affirming that the dentist has practiced dentistry for a minimum of 5000 hours during the five years immediately before applying for licensure by credential. For purposes of this subsection, dental practice includes experience as a dental educator at a dental program accredited by the American Dental Association Commission on Dental Accreditation or employment as a dentist in a public health setting;
3. Submit a written affidavit affirming that the applicant has complied with the continuing dental education requirement of the state in which the applicant is currently licensed; and
4. Provide evidence regarding the clinical examination by complying with one of the subsections in ~~R4-11-201(A)(2)~~ R4-11-201(A)(1)

C. A dentist applying under A.R.S. § 32-1240(A)(2) shall submit certified documentation sent directly from the applicable state, United States territory, District of Columbia or regional testing agency to the Board that contains the name of applicant, date of examination or examinations~~, total score for each examination, name of any separately scored component of the examination and scores for each component~~ and proof of a passing score.

D. For any application submitted under A.R.S. § 32-1240(A), the Board may request additional clarifying evidence required under the applicable subsection in ~~R4-11-201(A)(2)~~ R4-11-201(A)(1).

E. An applicant for dental licensure by credential shall pay the fee prescribed in A.R.S. §

32-1240, except the fee is reduced by 50% for applicants who will be employed or working under contract in:

1. Underserved areas, such as declared or eligible Health Professional Shortage Areas (HPSAs); or
2. Other facilities caring for underserved populations as recognized by the Arizona Department of Health Services and approved by the Board.

F. An applicant for dental licensure by credential who works in areas or facilities described in subsection (E) shall:

1. Commit to a three-year, exclusive service period,
2. File a copy of a contract or employment verification statement with the Board, and
3. As a licensee, submit an annual contract or employment verification statement to the Board by December 31 of each year.

G. A licensee's failure to comply with the requirements in subsection (F) is considered unprofessional conduct and may result in disciplinary action based on the circumstances of the case.

R4-11-203. Dental Hygienist Licensure by Credential; Application

A. A dental hygienist applying under A.R.S. § 32-1292.01(A) shall~~:~~

~~1.~~ Comply with all other applicable requirements in A.R.S. Title 32, Chapter 11 and this Article~~; and~~

~~2. Not be the subject of final or pending disciplinary action in any state, territory, or district of the United States or have resigned or surrendered a license while under investigation by or while disciplinary action was pending before any professional~~

~~licensing agency.~~

~~**B.** The Board shall:~~

~~1. Suspend an application for licensure by credential if disciplinary action by a dental regulatory agency against the applicant is currently pending in another jurisdiction, and~~

~~2. Not issue or deny licensure by credential to the applicant until the matter is resolved~~.

~~**C.**~~**B.** A dental hygienist applying under A.R.S. § 32-1292.01(A)(1) shall:

1. Have a current dental hygienist license in another state, territory, or district of the United States;
2. Submit a written affidavit affirming that the applicant has practiced as a dental hygienist for a minimum of 1000 hours during the two years immediately before applying for licensure by credential. For purposes of this subsection, dental hygienist practice includes experience as a dental hygienist educator at a dental program accredited by the American Dental Association Commission on Dental Accreditation or employment as a dental hygienist in a public health setting;
3. Submit a written affidavit affirming that the applicant has complied with the continuing dental hygienist education requirement of the state in which the applicant is currently licensed; and
4. Provide evidence regarding the clinical examination by complying with one of the subsections in ~~R4-11-201(A)(2)~~ R4-11-201(A)(1).

~~**D.**~~**C.** A dental hygienist applying under A.R.S. § 32-1292.01(A)(2) shall submit certified documentation sent directly from the applicable state, United States territory,

District of Columbia or regional testing agency to the Board that contains the name of applicant, date of examination or examinations~~, total score for the examination, name of any separately scored component of the examination and separate scores for each component~~ and proof of a passing score.

~~E.~~**D.** For any application submitted under A.R.S. § 32-1292.01(A), the Board may request additional clarifying evidence as required under the applicable subsection in ~~R4-11-201(A)(2)~~ R4-11-201(A).

~~F.~~**E.** An applicant for dental hygienist licensure by credential shall pay the fee prescribed in A.R.S. § 32-1292.01, except the fee is reduced by 50% for applicants who will be employed or working under contract in:

1. Underserved areas such as declared or eligible Health Professional Shortage Areas (HPSAs); or
2. Other facilities caring for underserved populations, as recognized by the Arizona Department of Health Services and approved by the Board.

~~G.~~**F.** An applicant for dental hygienist licensure by credential who works in areas or facilities described in subsection ~~(F)~~ (E) shall:

1. Commit to a three-year exclusive service period,
2. File a copy of a contract or employment verification statement with the Board, and
3. As a licensee, submit an annual contract or employment verification statement to the Board by December 31 of each year.

~~H.~~**G.** A licensee's failure to comply with the requirements in ~~R4-11-203(G)~~ R4-11-203(F) is considered unprofessional conduct and may result in disciplinary action

based on the circumstances of the case.

R4-11-204. Dental Assistant Radiography Certification by Credential

Eligibility. To be eligible for dental assistant radiography certification by credential, an applicant shall have a current certificate or other form of approval for taking dental radiographs, issued by a professional licensing agency in another ~~jurisdiction of the United States~~ state, United States territory or the District of Columbia that required successful completion of a written ~~and clinical~~ dental radiography examination~~s or a single dental radiography examination with written and clinical components~~.

ARTICLE 3. EXAMINATIONS, LICENSING QUALIFICATIONS, APPLICATION AND RENEWAL, TIME-FRAMES

R4-11-301. Application

A. An applicant for licensure or certification shall provide the following information and documentation ~~on a form provided by the Board~~:

1. A sworn statement of the applicant's qualifications for the license or certificate on a form provided by the Board;
2. A photograph of the applicant that is no more than 6 months old;
3. An official, sealed transcript sent directly to the Board from either:
   a. ~~the~~ The applicant's dental, dental hygiene, or denturist school ~~to the Board;~~ or
   b. A verified third-party transcript provider.
4. Except for a dental consultant license applicant, dental and dental hygiene license applicants provide proof of successfully completing a clinical examination by submitting:
   a. If applying for dental licensure by examination, a copy of the certificate or

score card from the Western Regional Examining Board, indicating that the applicant passed the Western Regional Examining Board examination within the five years immediately before the date the application is filed with the Board; ~~or~~

b. ~~If applying for licensure by credential, certified documentation sent directly from the applicable testing agency or state to the Board containing the name of the applicant, date of examination or examinations, total score for each examination, name of any separately-scored component of the examination, and scores for each component~~ If applying for dental hygiene licensure by examination, a copy of the certificate or scorecard from the Western Regional Examining Board or an Arizona Board-approved clinical examination administered by a state, United States territory, District of Columbia or regonal testing agency. The certificate or scorecard must indicate that the applicant passed the examination within the five years immediately before the date the application is filed with the Board; or

c. If applying for licensure by credential, certified documentation sent directly from the applicable state, United States territory, District of Columbia or regional testing agency to the Board containing the name of the applicant, date of examination or examinations and proof of a passing score;

5. Except for a dental consultant license applicant as provided in A.R.S. § 32-1234(A)(7), dental and dental hygiene license applicants must have an official score card sent directly from the National Board examination to the Board;

6. A copy showing the expiration date of the applicant's current cardiopulmonary

resuscitation healthcare provider level certificate from the American Red Cross, the American Heart Association, or another certifying agency that follows the same procedures, standards, and techniques for CPR training and certification as the American Red Cross or American Heart Association;

7. A license or certification verification from any other jurisdiction in which an applicant is licensed or certified, sent directly from that jurisdiction to the Board. If the license verification cannot be sent directly to the Board from the other jurisdiction, the applicant must submit a written affidavit affirming that the license verification submitted was issued by the other jurisdiction;
8. If ~~the~~ a dental or dental hygiene applicant has been licensed in another jurisdiction for more than six months, a copy of the self-inquiry from the National Practitioner Data Bank that is no more than ~~6 months~~ 30days old;
9. ~~If the applicant has never been licensed to practice in any jurisdiction or has been practicing for less than six months, a letter of endorsement from the dental, dental hygiene, or denturist school from which the applicant graduated that confirms the applicant's graduation~~ If a denturist applicant has been certified in another jurisdiction for more than six months, a copy of the self-inquiry from the Health Integrity and Protection Data Bank that is no more than 30 days old;
10. If the applicant is in the military or employed by the United States government, a letter of endorsement from the applicant’s commanding officer or supervisor that confirms the applicant's military service or United States government employment record; and
11. The jurisprudence examination fee.

B. The Board may request that an applicant provide:

1. An official copy of the applicant's dental, dental hygiene, or denturist school diploma,
2. A copy of a certified document that indicates the reason for a name change if the applicant's application contains different names,
3. Written verification of the applicant's work history, and
4. A copy of a high school diploma or equivalent certificate.

C. An applicant shall pass the Arizona jurisprudence examination with a minimum score of 75%.

R4-11-302. ~~Determination of Successful Completion of Licensure Examination~~

Repealed

~~To determine the minimum passing grade in all examinations conducted by the Board:~~

1. ~~The Board may require a composite average of 75% for successful completion of the examination; or~~
2. ~~The Board may use a performance rating of 0 to 6 to evaluate each procedure performed and require a specific point total to achieve successful completion.~~
3. ~~The Board shall vote, at least 30 days before the examination, to determine which scoring system is to be used. For the percentage system the Board shall also determine the relative values of the individual procedures tested. For the proficiency evaluation the Board shall determine the minimum point total required to successfully complete the examination.~~

R4-11-303. Application Processing Procedures: Issuance, Denial, and Renewal of Dental Licenses, Restricted Permits, Dental Hygiene Licenses, Dental Consultant

Licenses, Denturist Certificates, Drug or Device Dispensing Registrations, ~~and~~ Business Entity Registration and Mobile Dental Facility and Portable Dental Unit Permits

A. The Board office shall complete an administrative completeness review within 24 days of the date of receipt of an application for a license, certificate, permit, or registration.

1. Within 14 calendar days of receiving an initial or renewal application for a dental license, restricted permit, dental hygiene license, dental consultant license, denturist certificate, drug dispensing registration, ~~or~~ business entity registration, mobile dental facility or portable dental unit permit, the Board office shall notify the applicant, in writing, whether the application package is complete or incomplete.
2. If the application package is incomplete, the Board office shall provide the applicant with a written notice that includes a comprehensive list of the missing information. The 24-day time-frame for the Board office to finish the administrative completeness review is suspended from the date the notice of incompleteness is served until the applicant provides the Board office with all missing information.
3. If the Board office does not provide the applicant with notice regarding administrative completeness, the application package shall be deemed complete 24 days after receipt by the Board office.

B. An applicant with an incomplete application package shall submit all missing information within 60 calendar days of service of the notice of incompleteness.

C. Upon receipt of all missing information, the Board office shall notify the applicant, in writing, within 10 calendar days, that the application package is complete. If an applicant fails to submit a complete application package within the time allowed in subsection (B), the Board office shall close the applicant's file. An applicant whose file is closed and who later wishes to obtain a license, certificate, permit, or registration shall apply again as required in R4-11-301.

D. The Board shall not approve or deny an application until the applicant has fully complied with the requirements of A.A.C. Title 4, Chapter 11, Article 3.

E. The Board shall complete a substantive review of the applicant's qualifications in no more than 90 calendar days from the date on which the administrative completeness review of an application package is complete.

1. If the Board finds an applicant to be eligible for a license, certificate, permit, or registration and grants the license, certificate, permit, or registration, the Board office shall notify the applicant in writing.
2. If the Board finds an applicant to be ineligible for a license, certificate, permit, or registration, the Board office shall issue a written notice of denial to the applicant that includes:
   a. Each reason for the denial, with citations to the statutes or rules on which the denial is based;
   b. The applicant's right to request a hearing on the denial, including the number of days the applicant has to file the request;
   c. The applicant's right to request an informal settlement conference under A.R.S. § 41-1092.06; and

d. The name and telephone number of an agency contact person who can answer questions regarding the application process.

3. If the Board finds deficiencies during the substantive review of an application package, the Board office may issue a comprehensive written request to the applicant for additional documentation. An additional supplemental written request for information may be issued upon mutual agreement between the Board or Board office and the applicant.

4. The 90-day time-frame for a substantive review of an applicant's qualifications is suspended from the date of a written request for additional documentation until the date that all documentation is received. The applicant shall submit the additional documentation before the next regularly scheduled Board meeting.

5. If the applicant and the Board office mutually agree in writing, the 90-day substantive review time-frame may be extended once for no more than ~~45~~28 days.

F. The following time-frames apply for an initial or renewal application governed by this Section:

1. Administrative completeness review time-frame: 24 calendar days.
2. Substantive review time-frame: 90 calendar days.
3. Overall time-frame: 114 calendar days.

G. An applicant whose license is denied has a right to a hearing, an opportunity for rehearing, and, if the denial is upheld, may seek judicial review pursuant to A.R.S. Title 41, Chapter 6, Article 10, and A.R.S. Title 12, Chapter 7, Article 6.

R4-11-304. Application Processing Procedures: Issuance and Denial of Dental Assistant Certificates Radiography Certification by Credential

A. Within 14 calendar days of receiving an application from an applicant for a dental assistant ~~certificate~~ radiography certification by credential, the Board or its designee shall notify the applicant, in writing, that the application package is complete or incomplete. If the package is incomplete, the notice shall specify what information is missing.

B. An applicant with an incomplete application package shall supply the missing information within 60 calendar days from the date of the notice. If the applicant fails to do so, an applicant shall begin the application process anew.

C. Upon receipt of all missing information, within 10 calendar days, the Board or its designee shall notify the applicant, in writing, that the application is complete.

D. The Board or its designee shall not process an application until the applicant has fully complied with the requirements of this Article.

E. The Board or its designee shall notify an applicant, in writing, whether the certificate is granted or denied, no later than 90 calendar days after the date of the notice advising the applicant that the package is complete.

~~**F.** The Board or its designee shall deny certification if an applicant fails the clinical or written portions of the Dental Assisting National Board examination.~~

~~G~~F. The notice of denial shall inform the applicant of the following:

1. The reason for the denial, with a citation to the statute or rule which requires the applicant to pass the examination;
2. The applicant's right to request a hearing on the denial, including the number of days the applicant has to file the request;
3. The applicant's right to request an informal settlement conference under A.R.S. §

41-1092.06; and

4. The name and telephone number of an agency contact person or a designee who can answer questions regarding the application process.

~~H~~G. The following time-frames apply for certificate applications governed by this Section:

1. Administrative completeness review time-frame: 24 calendar days.
2. Substantive review time-frame: 90 calendar days.
3. Overall time-frame: 114 calendar days.

~~I~~H. An applicant whose certificate is denied has a right to a hearing, an opportunity for rehearing, and, if the denial is upheld, may seek judicial review pursuant to A.R.S. Title 41, Chapter 6, Article 10, and A.R.S. Title 12, Chapter 7, Article 6.

R4-11-305. Application Processing Procedures: Issuance, Denial, and Renewal of General Anesthesia and ~~Semi-conscious~~ Deep Sedation Permits, ~~Conscious~~ Parenteral Sedation Permits, ~~and~~ Oral ~~Conscious~~ Sedation Permits, and Permit to Employ a Physician Anesthesiologist or CRNA

A. The Board office shall complete an administrative completeness review within 24 days from the date of the receipt of an application for a permit.

1. Within 14 calendar days of receiving an initial or renewal application for a general anesthesia and ~~semi-conscious~~ deep sedation permit, ~~conscious~~ parenteral sedation permit, ~~or~~ oral ~~conscious~~ sedation permit or permit to employ a physician anesthesiologist or CRNA the Board office shall notify the applicant, in writing, whether the application package is complete or incomplete.
2. If the application package is incomplete, the Board office shall provide the

applicant with a written notice that includes a comprehensive list of the missing information. The 24-day time-frame for the Board office to finish the administrative completeness review is suspended from the date the notice of incompleteness is served until the applicant provides the Board office with all missing information.

3. If the Board office does not provide the applicant with notice regarding administrative completeness, the application package shall be deemed complete 24 days after receipt by the Board office.

B. An applicant with an incomplete application package shall submit all missing information within 60 calendar days of service of the notice of incompleteness.

C. Upon receipt of all missing information, the Board office shall notify the applicant, in writing, within 10 calendar days, that the application package is complete. If an applicant fails to submit a complete application package within the time allowed in subsection (B), the Board office shall close the applicant's file. An applicant whose file is closed and who later wishes to obtain a permit shall apply again as required in A.A.C. Title 4, Chapter 11, Article 13.

D. The Board shall not approve or deny an application until the applicant has fully complied with the requirements of this Section and A.A.C. Title 4, Chapter 11, Article 13.

E. The Board shall complete a substantive review of the applicant's qualifications in no more than 120 calendar days from the date on which the administrative completeness review of an application package is complete.

1. If the Board finds an applicant to be eligible for a permit and grants the permit,

the Board office shall notify the applicant in writing.

2. If the Board finds an applicant to be ineligible for a permit, the Board office shall issue a written notice of denial to the applicant that includes:
   a. Each reason for the denial, with citations to the statutes or rules on which the denial is based;
   b. The applicant's right to request a hearing on the denial, including the number of days the applicant has to file the request;
   c. The applicant's right to request an informal settlement conference under A.R.S. § 41-1092.06; and
   d. The name and telephone number of an agency contact person who can answer questions regarding the application process.
3. If the Board finds deficiencies during the substantive review of an application package, the Board office shall issue a comprehensive written request to the applicant for additional documentation.
4. The 120-day time-frame for a substantive review of an applicant's qualifications is suspended from the date of a written request for additional documentation until the date that all documentation is received.
5. If the applicant and the Board office mutually agree in writing, the 120-day substantive review time-frame may be extended once for no more than ~~60~~36 days. ~~The applicant shall submit the additional documentation before the next regularly scheduled Board meeting.~~

F. The following time-frames apply for an initial or renewal application governed by this Section:

1. Administrative completeness review time-frame: 24 calendar days.
2. Substantive review time-frame: 120 calendar days.
3. Overall time-frame: 144 calendar days.

Articles 2 & 3 Licensure Rules

Economic, Small Business and Consumer Impact Statement

A. Economic, small business and consumer impact summary

1. Final rule making

The Five-Year rule review identified necessary amendments to AAC Title 4, Chapter 11, Article 2 Licensure by Credential, Article 3 Examinations Licensing Qualifications, Application and Renewal, and Time-Frames. The Board has proposed the following changes to AAC Articles listed above:

- Repeals the consideration of an application for licensure by credential at the next scheduled Board meeting in AAC R4-11-201. When licensure by credential was enacted, the Board reviewed every application. The Board has delegated the issuance of licenses to the Executive Director. Now the Board reviews applications with disclosures.
- For consistency, adds United States territory and District of Columbia throughout Article 2.
- Repeals R4-11-201(A)(2)(c) which required a detailed report prepared by a Board recognized organization (PBIS). The Committee agreed that it was impossible to compare an older exam with the present day Western Regional Examining Board (WREB) exam. The Board began reviewing comparison reports in 2003. Since that time, the Board not denied licensure based on the comparison report.
- Amend R4-11-203(A) & (B) Dental Hygienist Licensure by Credential; Application to mirror R4-11-202(A) & (B) Dental Licensure by Credential; Application. The repealed text in R4-11-203(A) currently exists in Arizona Revised Statutes § 32-1284.

- Adds accepting a verified third-party transcript provider for dental, dental hygiene or denturist transcripts to R4-11-301(A)(3). At the April 11, 2014 meeting, the Board voted to open a docket for this amendment.
- Amendment to R4-11-301(A)(4) updates language regarding proof of dental hygiene clinical examination taken within the last five years to match ARS § 32-1285, amended in 2013.
- Amend R4-11-301(A)(6) to require Healthcare Provider CPR for applicants. Healthcare Provider CPR is required to renew a license.
- Amend R4-11-301(A)(7) to allow license verifications from other states to be accepted without being sent directly to the Board. More and more states are using electronic methods of transmitting verifications of licensure. Indiana was the first state to send digital verifications and two more states have recently contacted the Board to set up retrieval of their digital verifications.
- Amends R4-11-301(A)(9) to clarify that denturist applicants need a Health Integrity and Protection Data Bank report.
- Repeals R4-11-302 – Determination of Successful Completion of Licensure Examinations. The Board no longer gives examinations.
- Adds Mobile Dental Facility and Portable Dental Unit Permits to R4-11-303 License Timeframe Rules
- Updates R4-11-304 to clarify Radiography Certification by Credential.
- Amendment to R4-11-305 updates names of anesthesia and sedation permits.

The rule will include format, style, and grammar necessary to comply with the

current rules of the Secretary of State.

2. Information contained in this report

The amended rule will impact the Board, licensees, and the public. The amended rule's impact on established Board of Dental Examiners' procedures and office related costs is minimal. As of November 1, 2015, the Board issued 4,701 dentist licenses, 4,260 dental hygienist licenses, 12 denturist licenses, 15 dental consultant licenses, and 326 business entity registrations.

The Board estimates the amended rule will have minimal economic impact on licensees. The cost to the individual or entity is minimal.

The amended rule has no economic impact on the public.

The Board, licensees, and the public benefit from rules that are clear, concise, and understandable. The Board believes that approval of these rules will benefit the public health and safety by clearly establishing the procedures for licensure by credential, examinations, licensing qualifications, application and renewal, and time-frames.

3. Name and address of agency employees who can submit additional data on the information included in this statement

Name: Elaine Hugunin, Executive Director

Address: State Board of Dental Examiners

4205 N. 7th Ave., Suite 300

Phoenix, AZ 85013

Telephone: (602) 542-4493

Fax: (602) 242-1445

E-mail: elaine.hugunin@azdentalboard.us

Website: www.dentalboard.az.gov

B. Economic, small business and consumer impact statement

1. Final rulemaking

The Five-Year rule review identified necessary amendments to AAC Title 4, Chapter 11, Article 2 Licensure by Credential, Article 3 Examinations Licensing Qualifications, Application and Renewal, and Time-Frames. The Board has proposed the following changes to AAC Articles listed above:

- Repeals the consideration of an application for licensure by credential at the next scheduled Board meeting in AAC R4-11-201. When licensure by credential was enacted, the Board reviewed every application. The Board has delegated the issuance of licenses to the Executive Director. Now the Board reviews applications with disclosures.
- For consistency, adds United States territory and District of Columbia throughout Article 2.
- Repeals R4-11-201(A)(2)(c) which required a detailed report prepared by a Board recognized organization (PBIS). The Committee agreed that it was impossible to compare an older exam with the present day Western Regional Examining Board (WREB) exam. The Board began reviewing comparison reports in 2003. Since that time, the Board not denied licensure based on the comparison report.
- Amend R4-11-203(A) & (B) Dental Hygienist Licensure by Credential;

Application to mirror R4-11-202(A) & (B) Dental Licensure by Credential; Application. The repealed text in R4-11-203(A) currently exists in Arizona Revised Statutes § 32-1284.

- Adds accepting a verified third-party transcript provider for dental, dental hygiene or denturist transcripts to R4-11-301(A)(3). At the April 11, 2014 meeting, the Board voted to open a docket for this amendment.
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- Amend R4-11-301(A)(7) to allow license verifications from other states to be accepted without being sent directly to the Board. More and more states are using electronic methods of transmitting verifications of licensure. Indiana was the first state to send digital verifications and two more states have recently contacted the Board to set up retrieval of their digital verifications.
- Amends R4-11-301(A)(9) to clarify that denturist applicants need a Health Integrity and Protection Data Bank report.
- Repeals R4-11-302 – Determination of Successful Completion of Licensure Examinations. The Board no longer gives examinations.
- Adds Mobile Dental Facility and Portable Dental Unit Permits to R4-11-303 License Timeframe Rules
- Updates R4-11-304 to clarify Radiography Certification by Credential.

- Amendment to R4-11-305 updates names of anesthesia and sedation permits.

The rule will include format, style, and grammar necessary to comply with the current rules of the Secretary of State.

2. Persons who are affected, bear costs or directly benefit

Cost bearers

The cost of the licensure rules is borne by the Board, licensees, and the public.

Beneficiaries

The Board, licensees, and the public benefit from rules that are clear, concise, and understandable. The Board believes that approval of these rules will benefit the public health and safety by clearly establishing the procedures for licensure by credential, examinations, licensing qualifications, application and renewal, and time-frames.

3. Cost/benefit analysis

Costs/revenues scale

Annual costs/revenues changes are designated as minimal when less than $1000 in additional costs or revenues, moderate when between $1000 and $10,000 in additional costs or revenues, and substantial when greater than $10,000 in additional costs or revenues.

a. Probable costs and benefits to the implementing agencies

Board of Dental Examiners

Rule	Description of effect	Increased Costs/ Decreased Revenues	Decreased Costs/ Increased Revenues
R4-11-201. Clinical Examination: Requirements, R4-11-202. Dental Licensure by Credential: Application, R4-11-203. Dental Hygienist Licensure by Credential: Application, R4-110-204. Dental Assistant Radiography Certification by Credential, R4-11-301. Application, ~~R4-11-302. Determiniation of Successful Completion of Licensure Examination~~, R4-11-303. Application Processing Procedures: Issuance, Denial, and Renewal of Dental Licenses, Restricted Permits, Dental Hygiene Licenses, Dental Consultant Licenses, Denturist Certificates, Drug or Device Dispensing Registrations, ~~and~~ Business Entity Registraion, and Mobile Dental Facility and Portable Dental Unit Permits, R4-11-304. Application Processing	Rulemaking-related costs involve staff time to write rules and economic and small business and consumer impact statement. Costs to licensees to comply with rulemaking.	Minimal, no new FTEs will be needed. Minimal	None None

Procedures: Issuance and Denial of Dental Assistant Certificates Radiography Certification by Credential, and R4-11-305. Application Processing Procedures: Issuance, Denial, and Renewal of General Anesthesia and ~~Semi-conscious~~ Deep Sedation Permits, ~~Conscious~~ Parenteral Sedation Permits, ~~and~~ Oral ~~Conscious~~ Sedation Permits, and Permit to Employ a Physician Anesthesiologist or CRNA			
Total Annual Net Cost		Minimal	None

b. Probable costs and benefits to a political subdivision

None

c. Probable costs and benefits to business

None

Cost/benefit summary

The amended rule's impact on established Board of Dental Examiners' procedures and office related costs is minimal.

The Board estimates the amended rule will have minimal economic impact on licensees.

The amended rule has no economic impact on the public.

4. Private and public employment impact

The rehearing and review rule will not have an impact on private and public employment.

5. Impact on small businesses

a. An identification of the small businesses subject to the final rulemaking.

As of November 1, 2015, there were 326 small business entities in Arizona.

b. The administrative and other costs required for compliance with the final rulemaking.

There are no administrative or other costs required for compliance with the final rulemaking.

c. A description of the methods that the agency may use to reduce the impact on small businesses.

None

d. The probable cost and benefit to private persons and consumers who are directly affected by the final rulemaking.

Private persons or consumers are not directly affected.

6. Probable effect on state revenues

None

7. Less intrusive or less costly alternative methods of achieving the final rulemaking.

We could not find a less intrusive or less costly alternative method to achieving the final rulemaking.

8. A description of any data on which a rule is based with a detailed explanation of how the data was obtained and why the data is acceptable data:

The data is based on information from within our agency. Everything we use is an estimate based on the ever changing data within the agency's databases. In this

rulemaking the data deals with the statutorially required rehearing and revies procedures for licensees.

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 11. STATE BOARD OF DENTAL EXAMINERS

(Authority: A.R.S. § 32-1203 et seq.)

ARTICLE 1. DEFINITIONS

R4-11-101. Definitions

The following definitions, and definitions in A.R.S. § 32-1201, apply to this Chapter:
"Analgesia" means a state of decreased sensibility to pain produced by using nitrous oxide (N2O) and oxygen (O2) with or

without local anesthesia.
"Application" means, for purposes of Article 3 only, forms designated as applications and all documents and additional

information the Board requires to be submitted with an application.
"Business Entity" means a business organization that offers to the public professional services regulated by the Board and is

established under the laws of any state or foreign country, including a sole practitioner, partnership, limited liability

partnership, corporation, and limited liability company, unless specifically exempted by A.R.S. § 32-1213(J).
"Calculus" means a hard mineralized deposit attached to the teeth.
"Certificate holder" means a denturist who practices denture technology under A.R.S. Title 32, Chapter 11, Article 5. "Charitable Dental Clinic or Organization" means a non-profit organization meeting the requirements of 26 U.S.C. 501(c)(3)

and providing dental or dental hygiene services.
"Clinical evaluation" means a dental examination of a patient named in a complaint regarding the patient's dental condition as

it exists at the time the examination is performed.
"Closed subgingival curettage" means the removal of the inner surface of the soft tissue wall of a periodontal pocket in a

situation where a flap of tissue has not been intentionally or surgically opened.
"Controlled substance" has the meaning prescribed in A.R.S. § 36-2501(A)(3).
"Credit hour" means one clock hour of participation in a recognized continuing dental education program.
"Deep sedation" is a drug-induced depression of consciousness during which a patient cannot be easily aroused but responds

purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. The patient may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is maintained.

"Dental laboratory technician" or "dental technician" has the meaning prescribed in A.R.S. § 32-1201(7).
"Dentist of record" means a dentist who examines, diagnoses, and formulates treatment plans for a patient and may provide

treatment to the patient.
"Designee" means a person to whom the Board delegates authority to act on the Board's behalf regarding a particular task

specified by this Chapter.
"Direct supervision" means, for purposes of Article 7 only, that a licensed dentist is present in the office and available to

provide immediate treatment or care to a patient and observe a dental assistant’s work.
"Direct supervision" means, for purposes of Article 13 only, that a licensed dentist is physically present in the operatory and

actually performing dental procedures.
"Disabled" means a dentist, dental hygienist, or denturist has totally withdrawn from the active practice of dentistry, dental

hygiene, or denturism due to a permanent medical disability and based on a physician's order.
"Dispense for profit" means selling a drug or device for any amount above the administrative overhead costs to inventory. "Documentation of attendance" means documents that contain the following information:

Name of sponsoring entity;
Course title;
Number of credit hours;
Name of speaker; and
Date, time, and location of the course.

"Drug" means:
Articles recognized, or for which standards or specifications are prescribed, in the official compendium;
Articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in the human body; Articles other than food intended to affect the structure of any function of the human body; or
Articles intended for use as a component of any articles specified in this definition but does not include devices or components, parts, or accessories of devices.

"Emerging scientific technology" means any technology used in the treatment of oral disease that is not currently generally accepted or taught in a recognized dental or dental hygiene school and use of the technology poses material risks.

"Epithelial attachment" means the layer of cells that extends apically from the depth of the gingival (gum) sulcus (crevice) along the tooth, forming an organic attachment.

"Ex-parte communication" means a written or oral communication between a decision maker, fact finder, or Board member and one party to the proceeding, in the absence of other parties.

"General anesthesia" is a drug-induced loss of consciousness during which the patient is not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. The patient often requires assistance in maintaining a patent airway, and positive-pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

"General supervision" means, for purposes of Article 7 only, a licensed dentist is available for consultation, whether or not the dentist is in the office, regarding procedures or treatment that the dentist authorizes and for which the dentist remains

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responsible.
"Homebound patient" means a person who is unable to receive dental care in a dental office as a result of a medically

diagnosed disabling physical or mental condition.
"Informal interview" means a proceeding conducted under A.R.S. § 32-1263.02, during which a Board member, acting as an

informal interviewing officer, and other investigators, hear testimony from a complainant, licensee, or certificate holder, and any witnesses, and receive and review evidence relating to a complaint to form findings of fact, conclusions of law, and a recommended disposition for presentation to the full Board.

"Investigative interview" means a proceeding conducted under A.R.S. § 32-1263.02, during which an investigator or investigative panel hears testimony from a complainant, licensee, or certificate holder, and any witnesses, and receives and reviews evidence relating to a complaint to form findings of fact, conclusions of law, and a recommended disposition for presentation to the full Board.

"Irreversible procedure" means a single treatment, or a step in a series of treatments, that causes change in the affected hard or soft tissues and is permanent or may require reconstructive or corrective procedures to correct the changes.

"Jurisdiction" means the Board's power to investigate and rule on complaints that allege grounds for disciplinary action under A.R.S. Title 32, Chapter 11 or this Chapter.

"Licensee" means a dentist, dental hygienist, dental consultant, retired licensee, or person who holds a restricted permit under A.R.S. §§ 32-1237 or 32-1292.

"Local anesthesia" is the elimination of sensations, such as pain, in one part of the body by the injection of an anesthetic drug. "Minimal sedation" is a minimally depressed level of consciousness that retains a patient's ability to independently and continuously maintain an airway and respond appropriately to light tactile stimulation, not limited to reflex withdrawal from a painful stimulus, or verbal command and that is produced by a pharmacological or non-pharmacological method or a combination thereof. Although cognitive function and coordination may be modestly impaired, ventilatory and cardiovascular functions are unaffected. In accord with this particular definition, the drugs or techniques used should carry

a margin of safety wide enough to render unintended loss of consciousness unlikely.
"Moderate sedation" is a drug-induced depression of consciousness during which a patient responds purposefully to verbal

commands either alone or accompanied by light tactile stimulation, not limited to reflex withdrawal from a painful stimulus. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is maintained. The drugs or techniques used should carry a margin of safety wide enough to render unintended loss of consciousness unlikely. Repeated dosing of a drug before the effects of previous dosing can be fully recognized may result in a greater alteration of the state of consciousness than intended by the permit holder.

"Nitrous oxide analgesia" means nitrous oxide (N2O/O2) used as an inhalation analgesic.
"Nonsurgical periodontal treatment" means plaque removal, plaque control, supragingival and subgingival scaling, root planing,

and the adjunctive use of chemical agents.
"Official compendium" means the latest revision of the United States Pharmacopeia and the National Formulary and any

current supplement.
"Oral sedation" is the enteral administration of a drug or non-drug substance or combination inhalation and enterally

administered drug or non-drug substance in a dental office or dental clinic to achieve minimum or moderate sedation. "Parenteral sedation" is a minimally depressed level of consciousness that allows the patient to retain the ability to independently and continuously maintain an airway and respond appropriately to physical stimulation or verbal command and is induced by a pharmacological or non-pharmacological method or a combination of both methods of administration in

which the drug bypasses the gastrointestinal tract.
"Patient of record" means a patient who has undergone a complete dental evaluation performed by a licensed dentist. "Periodontal examination and assessment" means to collect and correlate clinical signs and patient symptoms that point to

either the presence of or the potential for periodontal disease.
"Periodontal pocket" means a pathologic fissure bordered on one side by the tooth and on the opposite side by crevicular

epithelium and limited in its depth by the epithelial attachment.
"Plaque" means a film-like sticky substance composed of mucoidal secretions containing bacteria and toxic products, dead

tissue cells, and debris.
"Polish" means, for the purposes of A.R.S. § 32-1291(B) only, a procedure limited to the removal of plaque and extrinsic stain

from exposed natural and restored tooth surfaces that utilizes an appropriate rotary instrument with rubber cup or brush and polishing agent. A licensee or dental assistant shall not represent that this procedure alone constitutes an oral prophylaxis.

"Prescription-only device" means:
Any device that is restricted by the federal act, as defined in A.R.S. § 32-1901, to use only under the supervision of a medical practitioner; or
Any device required by the federal act, as defined in A.R.S. § 32-1901, to bear on its label the legend “Rx Only.”

"Prescription-only drug" does not include a controlled substance but does include:
Any drug that, because of its toxicity or other potentiality for harmful effect, the method of its use, or the collateral measures necessary to its use, is not generally recognized among experts, qualified by scientific training and experience to evaluate its safety and efficacy, as safe for use except by or under the supervision of a medical practitioner;

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Any drug that is limited by an approved new drug application under the federal act or A.R.S. § 32-1962 to use under the supervision of a medical practitioner;
Every potentially harmful drug, the labeling of which does not bear or contain full and adequate directions for use by the consumer; or

Any drug, required by the federal act to bear on its label the legend "RX Only."
"President's designee" means the Board's executive director, an investigator, or a Board member acting on behalf of the Board

president.
"Preventative and therapeutic agents" means substances used in relation to dental hygiene procedures that affect the hard or

soft oral tissues to aid in preventing or treating oral disease.
"Prophylaxis" means a scaling and polishing procedure performed on patients with healthy tissues to remove coronal plaque,

calculus, and stains.
"Public member" means a person who is not a dentist, dental hygienist, dental assistant, denturist, or dental technician. "Recognized continuing dental education" means a program whose content directly relates to the art and science of oral health

and treatment, provided by a recognized dental school as defined in A.R.S. § 32-1201(18), recognized dental hygiene school as defined in A.R.S. § 32-1201(17), or recognized denturist school as defined in A.R.S. § 32-1201(19), or sponsored by a national or state dental, dental hygiene, or denturist association, American Dental Association, Continuing Education Recognition Program (ADA CERP) or Academy of General Dentistry, Program Approval for Continuing Education (AGD PACE) approved provider, dental, dental hygiene, or denturist study club, governmental agency, commercial dental supplier, non-profit organization, accredited hospital, or programs or courses approved by other state, district, or territorial dental licensing boards.

"Restricted permit holder" means a dentist who meets the requirements of A.R.S. § 32-1237 or a dental hygienist who meets the requirements of A.R.S. § 32-1292 and is issued a restricted permit by the Board.

"Retired" means a dentist, dental hygienist, or denturist is at least 65 years old and has totally withdrawn from the active practice of dentistry, dental hygiene, or denturism.

"Root planing" means a definitive treatment procedure designed to remove cementum or surface dentin that is rough, impregnated with calculus, or contaminated with toxins or microorganisms.

"Scaling" means use of instruments on the crown and root surfaces of the teeth to remove plaque, calculus, and stains from these surfaces.

"Section 1301 permit" means a permit to administer general anesthesia and deep sedation, employ or work with a physician anesthesiologist, or employ or work with a Certified Registered Nurse Anesthetist (CRNA) under Article 13.

"Section 1302 permit" means a permit to administer parenteral sedation, employ or work with a physician anesthesiologist, or employ or work with a Certified Registered Nurse Anesthetist (CRNA) under Article 13.

"Section 1303 permit" means a permit to administer oral sedation, employ or work with a physician anesthesiologist, or employ or work with a Certified Registered Nurse Anesthetist under Article 13.

"Section 1304 permit" means a permit to employ or work with a physician anesthesiologist, or employ or work with a Certified Registered Nurse Anesthetist (CRNA) under Article 13.

"Study club" means a group of at least five Arizona licensed dentists, dental hygienists, or denturists who provide written course materials or a written outline for a continuing education presentation that meets the requirements of Article 12.

"Treatment records" means all documentation related directly or indirectly to the dental treatment of a patient.

32-1201. Definitions

In this chapter, unless the context otherwise requires:

1. "Auxiliary personnel" means all dental assistants, dental technicians, dental x-ray technicians and other persons employed by dentists or firms and businesses providing dental services to dentists.
2. "Board" means the state board of dental examiners.
3. "Business entity" means a business organization that has an ownership that includes any persons who are not licensed or certified to provide dental services in this state, that offers to the public professional services regulated by the board and that is established pursuant to the laws of any state or foreign country.
4. "Dental assistant" means any person who acts as an assistant to a dentist or a dental hygienist by rendering personal services to a patient that involve close proximity to the patient while the patient is under treatment or observation or undergoing diagnostic procedures.
5. "Dental hygienist" means any person licensed and engaged in the general practice of dental hygiene and all related and associated duties, including educational, clinical and therapeutic dental hygiene procedures.
6. "Dental incompetence" means lacking in sufficient dentistry knowledge or skills, or both, in that field of dentistry in which the dentist, denturist or dental hygienist concerned engages, to a degree likely to endanger the health of that person's patients.
7. "Dental laboratory technician" means any person, other than a licensed dentist, who, pursuant to a written work order of a dentist, fabricates artificial teeth, prosthetic appliances or other mechanical and artificial contrivances designed to correct or alleviate injuries or defects, both developmental and acquired, disorders or deficiencies of the human oral cavity, teeth, investing

tissues, maxilla or mandible or adjacent associated structures.
8. "Dental x-ray laboratory technician" means any person, other than a licensed dentist, who, pursuant to a written work order of a dentist, performs dental and maxillofacial radiography, including cephalometrics, panoramic and maxillofacial tomography and other dental related non-fluoroscopic diagnostic imaging modalities.
9. "Dentistry", "dentist" and "dental" means the general practice of dentistry and all specialties or restricted practices of dentistry.
10. "Denturist" means a person practicing denture technology pursuant to article 5 of this chapter.
11. "Disciplinary action" means regulatory sanctions that are imposed by the board in combination with, or as an alternative to, revocation or suspension of a license and that may include:
(a) Imposition of an administrative penalty in an amount not to exceed two thousand dollars for each violation of this chapter or rules adopted under this chapter.
(b) Imposition of restrictions on the scope of practice.
(c) Imposition of peer review and professional education requirements.
(d) Imposition of censure or probation requirements best adapted to protect the public welfare, which may include a requirement for restitution to the patient resulting from violations of this chapter or rules adopted under this chapter.
12. "Irregularities in billing" means submitting any claim, bill or government assistance claim to any patient, responsible party or third-party payor for dental services rendered that is materially false with the intent to receive unearned income as evidenced by any of the following:

(a) Charges for services not rendered.
(b) Any treatment date that does not accurately reflect the date when the service and procedures were actually completed.
(c) Any description of a dental service or procedure that does not accurately reflect the actual work completed.
(d) Any charge for a service or procedure that cannot be clinically justified or determined to be necessary.
(e) Any statement that is material to the claim and that the licensee knows is false or misleading.
(f) An abrogation of the copayment provisions of a dental insurance contract by a waiver of all or a part of the copayment from the patient if this results in an excessive or fraudulent charge to a third party or if the waiver is used as an enticement to receive dental services from that provider. This subdivision does not interfere with a contractual relationship between a third-party payor and a licensee or business entity registered with the board.
(g) Any other practice in billing that results in excessive or fraudulent charges to the patient.
13. "Letter of concern" means an advisory letter to notify a licensee or a registered business entity that, while the evidence does not warrant disciplinary action, the board believes that the licensee or registered business entity should modify or eliminate certain practices and that continuation of the activities that led to the information being submitted to the board may result in board action against the practitioner's license or the business entity's registration. A letter of concern is not a disciplinary action. A letter of concern is a public document and may be used in a future disciplinary action.
14. "Licensed" means licensed pursuant to this chapter.
15. "Place of practice" means each physical location at

which a person licensed pursuant to this chapter performs services subject to this chapter.
16. "Primary mailing address" means the address on file with the board and to which official board correspondence, notices or documents are delivered in a manner determined by the board.
17. "Recognized dental hygiene school" means a school that has a dental hygiene program with a minimum two academic year curriculum, or the equivalent of four semesters, and that is approved by the board and accredited by the American dental association commission on dental accreditation.
18. "Recognized dental school" means a dental school accredited by the American dental association commission on dental accreditation.
19. "Recognized denturist school" means a denturist school that maintains standards of entrance, study and graduation and that is accredited by the United States department of education or the council on higher education accreditation.
20. "Supervised personnel" means all dental hygienists, dental assistants, dental laboratory technicians, denturists, dental x-ray laboratory technicians and other persons supervised by licensed dentists.
21. "Teledentistry" means the use of data transmitted through interactive audio, video or data communications for the purposes of diagnosis, treatment planning, consultation and directing the delivery of treatment by dentists and dental providers in settings permissible under this chapter or specified in rules adopted by the board.

E-5

ARIZONA DEPARTMENT OF AGRICULTURE (F-16-0205)

Title 3, Chapter 3, Article 2, Permits, Licenses, and Certification

Amend: R3-3-208

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-5**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: Chris Kleminich, Staff Attorney

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF AGRICULTURE (F-16-0205)**
Title 3, Chapter 3, Article 2, Permits, Licenses, and Certification

Amend: R3-3-208

General Comments

Purpose of the Agency and Summary of What the Rulemaking Does

The purpose of the Arizona Department of Agriculture (Department) is to "provide for a uniform and coordinated agricultural program and policy in this state." Laws 2011, Ch. 12, § 3.

This rulemaking relates to one rule in A.A.C. Title 3, Chapter 3, Article 2. The rule has already been amended in September of 2013, under an exemption from the Administrative Procedure Act (APA) that the legislature provided the Department. In accordance with A.R.S. § 41-1008(E) and (F), under which fees established or increased by exempt rulemaking can only be charged for two years, the Department is going through the regular rulemaking process to make the fees in this rule permanent.

Article Contents, Including the Subject Matter of Each Rule Affected

Article 2 contains twelve rules, one of which is amended by this rulemaking, that relate to permits, licenses, and certification. Section 208 addresses applicator certifications, examinations, fees, and renewals.

Year that Each Rule was Last Amended or Newly Made

The rule was amended, via the exempt rulemaking process, on September 16, 2013.

Proposed Action

As noted above, the Department is going through the regular rulemaking process to make the fees established in R3-3-208 permanent. Under subsection (G), an applicant for private or commercial applicator certification must pay a $50 fee per year for certification, and an applicant for golf applicator certification must pay a $100 fee per year for certification.

Summary of Reasons for the Proposed Action

The Department notes that it was directed by the legislature in 2011 to appoint a nine member task force to study the regulation of structural pest management in Arizona, specifically as it related to the following four items: (1) a review of all laws and regulations governing structural pest management in this state, (2) a review of possible organizational configurations within the Department for structural pest management regulation, (3) a review of personnel and funding issues relating to the administration of structural pest management regulation within the Department, and (4) statutory changes necessary to accomplish the future structural pest management program. Between August 2011 and October 2012, the task force and its subcommittees held roughly eighteen public meetings to review the laws and regulations governing structural pest management, and to develop proposed statutes and rules. The task force particularly focused on the development of a fair regulatory package that would be less burdensome on the regulated industry, while providing protection for the public. One of the task force's recommendations was to shift regulation of pesticide applications by golf courses from the Office of Pest Management to the Department. This rulemaking adopts changes to R3-3-208 that were recommended by the task force, as submitted to the Governor, President of the Senate, and Speaker of the House in November 2012.

Exemption or Request and Approval for Exception from the Moratorium

The Department received an exception from Executive Order 2015-01 on September 15, 2015.

Substantive or Procedural Concerns

The Department has acknowledged to staff that it has collected fees from applicants, using this rule, after the two-year time limit for charging exempt fees expired on September 16, 2015. The Department indicates that golf course applicators have been processed as a subset of the Department's general application pool, and their applications have not been separated out from that pool. The Department understands that it is ultimately responsible for this issue, but notes that the request to engage in rulemaking was submitted to the Governor's Office on February 2nd, and was not approved until September.

Staff has included these details in this memorandum because they are in the public interest. This concern, however, is unrelated to the core question before the Council: namely, whether or not the rulemaking should be approved. Accordingly, staff believes that questions related to the application of A.R.S. § 41-1008(E) and (F) in this instance must ultimately be left to the Department and the regulated community, rather than the Council.

1. Are the rules legal, consistent with legislative intent, and within the agency's statutory authority?

Yes. As general authority for the rule, the Department cites to A.R.S. § 3-107(A)(1), under which the Director of the Department shall "[f]ormulate the program and policies of the [D]epartment and adopt administrative rules to effect its program and policies." As general and specific authority for the rule, the Department cites to A.R.S. § 3-363, under which the director shall adopt rules to regulate pesticides, including rules that charge fees for pesticide use on golf courses. See A.R.S. § 3-363(10)(h).

2. Are the rules written in a manner that is clear, concise, and understandable to the general public?

Yes. The rule is clear, concise, and understandable.

3. Does the agency adequately address the comments on the proposed rules and any supplemental proposals?

Yes. The Department did not receive any comments on the rulemaking.

4. Are the final rules a substantial change, considered as a whole, from the proposed rules and any supplemental proposals?

No. Because the Department was required to undertake a regular rulemaking on R3-3-208 to make its fees permanent, the Department chose to allow public comments on the entire exempt rulemaking from 2013. Thus, it included all of the rules that were amended by the previous exempt rulemaking in its Notice of Proposed Rulemaking (NPR). For reference purposes, please note that subsection R3-3-208(E) was unintentionally omitted from the NPR. As the Department did not receive any comments on the proposed regular rulemaking, and all of the rules continue to be in effect, R3-3-208 is the only rule that has been included in the final rulemaking.

5. Does the preamble disclose a reference to any study relevant to the rules that the agency reviewed and either did or did not rely on in the agency's evaluation of or justification for the rules?

No. The Department indicates that it did not review or rely upon any study for the rulemaking.

6. Are the rules more stringent than corresponding federal law and, if so, is there statutory authority that allows the agency to exceed the requirements of federal law?

No. The Department indicates that the rule is not more stringent than corresponding federal law, namely 40 C.F.R. 171.

7. Do the rules require a permit or license and if so, does the agency use a general permit or is any exception applicable under A.R.S. § 41-1037?

Yes. The rule requires pesticide applicators to obtain certification. The Department indicates that it is not, in its view, using a general permit, as the issuance of a general permit would result in additional regulatory requirements being placed on applicants. Every individual seeking applicator certification, whether commercial or private, must pass a core exam. Those individuals that seek commercial applicator certification must pass an additional, category-specific, examination. Under the current certification scheme, private applicators are not required to pass any category specific test, and commercial applicators can be certified by passing one category-specific exam.

8. Do the rules establish a new fee or contain a fee increase?

No. As noted above, the rule does not establish new fees, but makes permanent fees that the Department established via the exempt rulemaking process.

9. Conclusion

The Department requests the usual 60-day delayed effective date for the rule. This analyst recommends approval of the rule.

GOVERNOR'S REGULATORY REVIEW COUNCIL
M E M O R A N D U M

MEETING DATE: February 2, 2016 **AGENDA ITEM: E-5**

TO: Members of the Governor's Regulatory Review Council ("Council")

FROM: GRRC Economist

DATE: January 15, 2016

SUBJECT: **ARIZONA DEPARTMENT OF AGRICULTURE (F-16-0205)**
Title 3, Chapter 3, Article 2, Permits, Licenses, and Certification

Amend: R3-3-208

I reviewed the economic, small business, and consumer impact statement (EIS) and make the following comments. These comments are made to assist the Council in its review and may be used as the Council determines.

GRRC Economist comments:

In this rulemaking, the Department is making permanent the fee for golf course applicator certification that were established by exempt rulemaking on September 16, 2013. Pursuant to A.R.S. § 41-1008(E), fees established or increased by exempt rulemaking expire after two years.

In FY 2015, the Department issued 286 golf course applicator licenses and collected $28,600 from the issuance of those licenses. The rule was originally recommended by a nine member task force to study the regulation of structural pest management in Arizona.

1. **Costs and Benefits for:**

a. The implementing agency:

There will be no direct benefit to the Department or to any other state agency. The fees collected are deposited into the state general fund. The Department will not incur additional costs associated with the amendments.

b. Political subdivisions:

The amendments do not directly affect political subdivisions.

c. Businesses:

The Department states that the amendments will affect golf courses that perform pesticide applications. The rulemaking will require businesses to continue paying fees for licensing services that were established in the 2013 exempt rulemaking.

d. Small businesses:

The amendments are not expected to affect small businesses in a different manner than that described in the business impact section above.

e. Consumers directly affected by the rulemaking:

The Department estimates that the amended rule will have no direct economic impact on private persons or consumers.

2. Do the probable benefits outweigh the probable costs?

The Department indicates that the probable benefits outweigh the probable costs of the rule. The Department notes that the only direct costs from this rulemaking will assigned to golf courses that perform pesticide applications. Each identified golf course is subject to an annual license fee of $100. No other entity is expected to bear a direct economic cost from the proposed rule change.

3. Analysis of methods to reduce the small business impact:

An analysis was not performed, as the rulemaking is not expected to affect small businesses in a larger capacity than businesses generally.

4. The probable effect on state revenues:

The fees collected by the Department are deposited into the state general fund. The Department collected $28,600 from the issuance of the licenses to golf courses in FY 2015.

5. Analysis of any less intrusive or less costly alternative methods:

No alternative methods were considered.

6. Whether an analysis was submitted to the agency regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states:

No business competitiveness analysis was submitted to the Department.

7. A description of any data on which a rule is based with an explanation of how the data was obtained and why the data is acceptable data, and the methods used by the agency to evaluate the costs and benefits in the EIS.

No outside data or studies were used to create the EIS.

8. Conclusion:

The submitted economic, small business and consumer impact statement is generally accurate, and contains the information required for compliance with A.R.S. §§ 41-1035, 41-1052(D)(1-3), and 41-1055. This analyst recommends that the rules be approved.

DOUG A. DUCEY
Governor

MARK W. KILLIAN
Director

Arizona Department of Agriculture

Office of Pest Management

1688 W. Adams Street, Phoenix, Arizona 85007
(602) 542-3578 FAX (602) 542-0466

December 21, 2015

RECEIVED
DEC 21 2015
GRRC

Nicole Ong, Chairman
Governor's Regulatory Review Council
100 N. 15th Avenue, Suite 402
Phoenix, Arizona 85007

RE: Notice of Final Rulemaking for A.A.C. Title 3, Chapter 3, Articles 1, 2, 3, 4 and 5

Dear Ms. Ong:

The Arizona Department of Agriculture submits the attached Notice of Final Rulemaking to amend the following rules:

R3-3-101
Table 1
R3-3-201
R3-3-202
R3-3-208
R3-3-305
R3-3-401
R3-3-402
R3-3-502

The Department requests that the rulemaking be placed on the Council's February 2, 2016 meeting agenda. In accordance with Executive Order 2015-01 the Department received approval of the rulemaking from the Office of the Governor of September 15, 2015.
In accordance with A.A.C. R1-6-201, the Department provides the following additional information.

a. Close of record date: November 16, 2015.

b. Relation of the rulemaking to a five-year review report: This rulemaking does not relate to a five-year review report.

c. Whether the rule establishes a new fee: This rulemaking is part of a transition of the agency formally named Structural Pest Control Commission. The Commission was renamed the Office of Pest Management and the Director of the Arizona Department of Agriculture was made responsible for overseeing

the OPM. As part of the agency transition, oversight of pesticide applications on golf courses was transferred from OPM to the Environmental Services Division of the Department. To effect the transition, the Department established the rules in this package, including rules that establish fees, under an exempt rulemaking. 21 A.A.R. 2345, October 16, 2015. The fees and other amendments in this rulemaking are the same as those in the previous exempt rulemaking. The specific authority for the fees is A.R.S. § 3-363.

d. Whether the rule contains a fee increase: The rulemaking does not increase fees from those that were established by the exempt rulemaking. 21 A.A.R. 2345, October 16, 2015.

e. Immediate effective date: The Department does not request an immediate effective date.

f. Certification regarding studies: The Department certifies that the preamble accurately discloses that no study was reviewed and either relied on or not relied on in the Department's evaluation of or justification for the rule.

g. Certification regarding employees: No new employees are needed to implement or enforce the rule.

h. Documents enclosed:
   1. Notice of Final Rulemaking;
   2. Economic, small business, and consumer impact statement;

i. Additional documents provided electronically:
   1. General and specific statutes authorizing the rule;
   2. The existing rules;
   3. Letter sent to the Governor's Office on February 2, 2015;
   4. Email from Governor's Office dated September 15, 2015;
   5. Notice of Proposed Rulemaking;

In addition, no person has submitted an analysis to the Office that compares the rule's impact on the competitiveness of businesses in this state to the competitiveness of businesses in other states.

Please contact Aaron Thompson at (602) 542-8334 or Aaron.Thompson@azag.gov with any questions.

Sincerely,

Mark Killian

mk:at
Enclosures

NOTICE OF FINAL RULEMAKING

TITLE 3. AGRICULTURE

CHAPTER 3. DEPARTMENT OF AGRICULTURE

ENVIRONMENTAL SERVICES DIVISION

PREAMBLE

1. **Section Affected** **Rulemaking Action**

R3-3-208 Amend

2. **Citations to the agency's statutory rulemaking authority to include both the authorizing statute (general) and the implementing statute (specific):**

Authorizing statute(s): A.R.S. §§ 3-107(A)(1) and 3-363.

Implementing statute(s): A.R.S. § 3-363.

3. **The effective date of the rule:**

60 days after filing in the Office of the Secretary of State of Arizona

a. **If the agency selected a date earlier than the 60 day effective date as specified in A.R.S. § 41-1032(A), include the earlier date and state the reason or reasons the agency selected the earlier effective date as provided in A.R.S. § 41-1032(A)(1) through (5):**

Not applicable

b. **If the agency selected a date later than the 60 day effective date as specified in A.R.S. § 41-1032(A), include the later date and state the reason or reasons the agency selected the later effective date as provided in A.R.S. § 41-1032(B):**

Not applicable

4. **Citations to all related notices published in the *Register* as specified in R1-1-409(A) that pertain to the record of the final rulemaking package:**

Notice of Rulemaking Docket Opening: 19 A.A.R. 3153, October 11, 2013

Notice of Final Exempt Rulemaking: 19 A.A.R. 3130, October 11, 2013

Notice of Rulemaking Docket Opening: 21 A.A.R. 2415, October 16, 2015

Notice of Proposed Rulemaking: 21 A.A.R. 2345, October 16, 2015

5. **The agency's contact person who can answer questions about the rulemaking:**

Name:	Jack Peterson
Address:	1688 W. Adams
	Phoenix, AZ 85007
Telephone:	(602) 542-3575
Fax:	(602) 542-0466
E-mail:	jpeterson@azda.gov

6. **An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:**

Laws 2011, ch. 20, § 6 required the Director of the Arizona Department of Agriculture to appoint a nine member task force to study the regulation of structural pest management in Arizona, specifically as it related to the following four items: (1) a review of all laws and regulations governing structural pest management in this state, (2) a review of possible organizational configurations within ADA for structural pest management regulation, (3) a review of personnel and funding issues relating to the administration of structural pest management regulation within ADA and (4) statutory changes necessary to accomplish the future structural pest management program. Between August 2011 and October 2012, the Task Force and its subcommittees held over eighteen public meetings to review the laws and regulations governing structural pest management and to develop proposed statutes and rules. The Task Force developed the proposed statutes and rules on parallel paths to help ensure appropriate regulatory oversight.

As the Task Force reviewed the current statutes and rules, they particularly focused on developing a fair regulatory package that would be less burdensome on the regulated industry while continuing to provide protections for the public. One of the Task Force's recommendations was to shift regulation of pesticide applications by golf courses from OPM to ADA. As part of that recommendation, the Task Force approved specific changes to A.R.S. § 3-363 and ADA's rules that would be applicable to golf course regulation.

The Task Force submitted its recommendations for changing the OPM and ADA statutes and rules to the Governor, the President of the Senate, and the Speaker of the House in November 2012. Although the Task Force knew that the Legislature was only responsible for changing statutes, it wanted to make the Legislature aware of its recommended rule changes as well so that the Legislature would be aware of the overall effect of the recommended statutory changes. The Task Force's recommendations on statutory changes became SB1290 (2013) (OPM statutes) and SB1143 (2013) (ADA statutes), albeit with a few changes made by the Legislature. Both bills passed and were signed into law. See Laws 2013, ch. 125 and Laws 2013, ch. 64.

This rulemaking adopts the changes to the ADA rules recommended by the Task Force, as submitted to the Governor, President of the Senate, and Speaker of the House in November 2012. This rulemaking also updates all references to the Office of Pest Management instead of the former Structural Pest Control Commission. This rulemaking was already adopted under a rulemaking exemption, but in order to make the fees established by that rulemaking permanent, ADA is proceeding with regular rulemaking as well.

7. A reference to any study relevant to the rule that the agency reviewed and either relied on or did not rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

None

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

9. The summary of the economic, small business, and consumer impact:

The harm resulting from the conduct the rule is designed to change and the likelihood it will continue to occur if the rule is not changed:

This rulemaking is not designed to change harmful conduct. This rulemaking makes permanent certain fees for licensing services that were established under a previous exempt rulemaking. 19 A.A.R. 3130, October 11, 2013.

The estimated change in frequency of the targeted conduct expected from the rule change:

There will be no change in the frequency of the conduct from the rule change. The rules will instead continue the conduct established under previous exempt rulemaking.

Brief summary of the information included in the economic, small business, and consumer impact statement:

Because the only practical effect of this rulemaking is that it makes permanent the fees for licensing services, there is very little economic, small business, or consumer impact, and the impact that will occur will be the same as the impact under the previous exempt rulemaking.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

The primary purpose of this rulemaking is to make permanent the fees in R3-3-208 that were established by exempt rulemaking. 19 A.A.R. 3130. Pursuant to A.R.S. § 41-1008(E), fees established or increased by exempt rulemaking expire after two years. Because the Department was required to amend R3-3-208 to make the fees permanent, the Department chose to allow public comments on the entire exempt rulemaking. Thus, it included all the rules amended by the previous exempt rulemaking in its proposed rulemaking except subsection R3-3-208(E) which was unintentionally omitted. *See* R3-3-208(E) ("Golf restricted use pesticide certification allows a golf applicator to use or apply restricted use pesticides to an ornamental and turf area of a golf course"). There was no intent to propose any changes to the 19 A.A.R. 3130 exempt rulemaking, and since the Department did not receive any comments on the proposed rulemaking and all the rules except R3-3-208 continue to be in effect, R3-3-208 is the only rule included in the final rulemaking.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agency response to the comments:

No comments were received

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

The Department received permission to conduct rulemaking from the Governor's Office in compliance with Executive Order 2015-01. Pursuant to A.R.S. § 3-104(F), the ADA Advisory Council approved this rulemaking.

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

R3-3-208 requires pesticide applicators to obtain certification. A general permit (i.e. certification) is not used in R3-3-208 because the issuance of a general permit would result in additional regulatory requirements being placed on the applicant. Every person who desires applicator certification must pass a core exam. A person who desires commercial applicator certification must additionally pass a category specific exam, such as agricultural pest control or seed treatment. "For example, practical knowledge of drift problems should be required of agricultural applicators but not of seed treatment applicators. The latter, however, should be particularly knowledgeable of the hazards of the misuse of treated seed and the necessary precautionary techniques." 40 CFR 171.4(c). There are eight categories of commercial certification plus a separate category for private fumigation certification. Under a general permit, an applicant would have to pass the core exam and all nine category specific tests (see 40 CFR 171.4 (requiring category specific exams)) whereas now private applicator certification does not require passing any category specific test and commercial applicator certification can be issued by passing one category specific exam.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

Certification of applicators who use restricted use pesticides, which R3-3-208 relates to in part, is subject to 40 CFR 171, particularly 40 CFR 171.4 and 171.5. A State may certify applicators of restricted use pesticides by obtaining approval from EPA of a State plan for that purpose. See 40 CFR 171.7. The standards of certification in the State plan must "conform and be at least equal to those prescribed" in 40 CFR 171.4(a) and 171.5(a).See also 40 CFR 171.7(e)(1)(i)(C) and (e)(1)(ii)(B). For commercial applicators, that means passing a written core examination and written category and subcategory specific examinations; this is what R3-3-208 requires. For private applicators, that means demonstrating competency in the certification standards by a method adopted by the State, which could be by written exam, oral exam, or another approved method. Arizona's approved State plan calls for demonstrating competency by written exam, and that is what R3-3-208 requires. ADA administers two written exams for private applicators: a general exam for all private applicators and a separate fumigation exam only for applicators who wish to use fumigants. Both exams test the applicant's knowledge in the same five areas identified in 40 CFR 171.5(a)(1)-(5), with the difference between the exams being that the general exam covers pesticides other than fumigants and the fumigation exam is specific to fumigants. Thus, the knowledge required by the private applicator exams conforms to federal law. State plans must also include "provisions to ensure that certified applicators continue to meet the requirements of changing technology and to assure a continuing level of competency and ability to use pesticides safely and properly." 40 CFR 171.8(a)(2). The continuing education requirements in R3-3-208 serve this purpose.

See also A.R.S. § 3-363(5) (specifically authorizing the Department to adopt continuing education requirements). Accordingly, R3-3-208 is not more stringent than a corresponding federal law.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

None

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the Register as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rule follows:

TITLE 3. AGRICULTURE

CHAPTER 3. DEPARTMENT OF AGRICULTURE
ENVIRONMENTAL SERVICES DIVISION

ARTICLE 2. PERMITS, LICENSES, AND CERTIFICATION

R3-3-208. Applicator Certification; Examination; Fee; Renewal

ARTICLE 2. PERMITS, LICENSES, AND CERTIFICATION

R3-3-208. Applicator Certification; Examination; Fee; Renewal

A. An individual shall not act as a private applicator, golf applicator, or commercial applicator unless the individual is certified by the Department.

B. Application. An individual applying for either commercial, golf, or private applicator certification shall pay ~~a $50~~ the applicable fee and submit a completed application to the Department containing the following information on a form obtained from the Department:

1. The applicant's name, address, e-mail address if applicable, daytime telephone number, Social Security number, and signature;
2. Date of the application;
3. Name, physical address, mailing address, e-mail address, if applicable, and daytime telephone number of the applicant's employer, if applicable;
4. Whether the application is for a commercial, golf, or private applicator certification;
5. If applicable, an indication the applicant seeks private applicator fumigation certification;
6. If applicable, an indication the applicant seeks golf applicator aquatic certification;

~~6.~~7. For commercial certification, the categories in which the applicant seeks to be certified;

~~7.~~8. Whether the applicant has had a similar certification revoked, suspended, or denied in this or any other jurisdiction during the last three years, and the nature of the violation; and

~~8.~~9. Certification renewal period.

C. Private applicator fumigation certification.

1. Fumigation certification requires certification as a private applicator, a golf applicator, or a commercial applicator.
2. Fumigation certification allows a private applicator or a commercial applicator acting as a private applicator to use, apply, or supervise the use or application of a fumigant to an on-farm raw agricultural commodity or on-farm burrowing rodent problem.
3. Fumigation certification allows a golf applicator to use and apply a fumigant to a golf course burrowing rodent problem.

D. Golf applicator aquatic certification allows a golf applicator to use or apply an aquatic pesticide to a body of water on a golf course to control an aquatic pest problem.

E. Golf restricted use pesticide certification allows a golf applicator to use or apply restricted use pesticides to an ornamental and turf area of a golf course.

~~**D.**~~**F.** Examinations. The Department shall administer examinations by appointment at every Environmental Services Division office. An applicant shall achieve a passing score of 75 percent in the applicable subject area in order to receive initial certification.

1. Commercial applicator certification (PUC). In addition to the core examination required by R3-3-202, an applicant shall demonstrate knowledge and understanding of the subjects listed in Appendix A, subsection (B) for each commercial certification category sought.
2. Commercial certification categories. An individual may apply for commercial applicator certification in any of the following categories:
   a. Agricultural pest control;
   b. Forest pest control;
   c. Seed-treatment;
   d. Aquatic pest control;
   e. Right-of-way pest control;
   f. Public health pest control;
   g. Regulatory pest control: M-44 or rodent, if a government employee; or
   h. Demonstration and research pest control.
3. Private applicator (PUP) and golf applicator (PUG) certification ~~(PUP)~~. An applicant shall demonstrate knowledge and understanding of the core examination subjects listed in R3-3-202.
4. Fumigation certification. An applicant seeking private applicator fumigation certification shall also pass a separate fumigation examination.
5. Aquatic certification. An applicant seeking aquatic certification shall also pass a separate aquatics examination.

~~5.~~6. An individual who fails an examination may retake it no more than three times in a 12-month period, and shall not retake an examination until at least seven days have elapsed from the date of the last examination.

G. Fee.

1. An applicant for private or commercial certification shall pay a $50 fee per year of certification.
2. An applicant for golf certification shall pay a $100 fee per year of certification.

~~**E.**~~**H.** Applicator certification is not transferable, expires on December 31, and is:

1. Issued for the remainder of the calendar year as an initial certification;
2. Renewed for one or two years, depending on the renewal period selected by the applicant; and
3. Renewed for all categories of certification for the same renewal period.

~~**F.**~~**I.** Renewal.

1. An applicant for renewal of an applicator certification shall select a one or two-year renewal period.
2. An applicant shall submit the completed application accompanied by ~~a $50~~ the applicable fee for a one-year renewal or ~~$100~~ double the fee for a two-year renewal.

3. CEU requirements.
   a. The Department shall not renew a private applicator or golf applicator certification unless, prior to the expiration of the current certification, the applicator completes three CEUs for each year of the renewal period.
   b. The Department shall not renew a commercial applicator certification unless, prior to expiration of the current certification, the applicator completes six CEUs for each year of the renewal period.
   c. The Department shall not renew a fumigation certification unless, prior to the expiration of the current certification, the applicant qualifies to renew the applicant's private, golf, or commercial applicator certification under this subsection and completes three additional CEUs per year of the renewal period.
   d. The Department shall not renew an aquatic certification unless, prior to the expiration of the current certification, the applicant qualifies to renew the applicant's golf applicator certification under this subsection and completes three additional CEUs per year of the renewal period. The three additional CEUs per year may also be used to simultaneously satisfy the three additional CEUs per year requirement in subsection (H)(3)(c).
   ~~d.~~e. An applicator shall complete CEU credit while the current certification period is in effect. CEU credits earned in excess of the requirements do not carry forward for use in subsequent renewals.
   ~~e.~~f. To obtain credit, the applicant shall provide the Department with documentation of completion of the CEU course.
   ~~f.~~g. The CEU requirements are not applicable to an individual renewing an initial certification issued between October 1 and December 31.
4. Examination exception. An applicator who fails to complete the CEUs required for renewal may renew a certification, prior to expiration, for one year by submitting the completed application accompanied by ~~a $50~~ the applicable fee and retaking and passing the applicable certification examination prescribed in this Section.

~~G.~~J. Renewal; expired certification.

1. An applicant may renew an expired certification without retaking the written examinations provided the applicant:
   a. Has satisfied the CEU requirements,
   b. Submits a completed application and fee within 30 days after the expiration date, and
   c. Does not provide any pesticide-related service from the date the certification expired until the date the renewal is effective.
2. All other applicants for renewal shall complete the requirements for initial certification, including retaking and passing the written examinations prescribed in this Section.

ECONOMIC, SMALL BUSINESS, AND CONSUMER IMPACT STATEMENT

ARIZONA DEPARTMENT OF AGRICULTURE
TITLE 3. AGRICULTURE
CHAPTER 3. DEPARTMENT OF AGRICULTURE – ENVIRONMENTAL SERVICES DIVISION

R3-3-101, Table 1, R3-3-201, R3-3-202 , R3-3-208, R3-3-305, R3-3-401, R3-3-402, and R3-3-502

1. Identification of the rulemaking:

Laws 2011, Ch. 20, § 6 required the Director of the Arizona Department of Agriculture to appoint a nine member task force to study the regulation of structural pest management in Arizona, specifically as it related to the following four items: (1) a review of all laws and regulations governing structural pest management in this state, (2) a review of possible organizational configurations within ADA for structural pest management regulation, (3) a review of personnel and funding issues relating to the administration of structural pest management regulation within ADA and (4) statutory changes necessary to accomplish the future structural pest management program. Between August 2011 and October 2012, the Task Force and its subcommittees held over eighteen public meetings to review the laws and regulations governing structural pest management and to develop proposed statutes and rules. The Task Force developed the proposed statutes and rules on parallel paths to help ensure appropriate regulatory oversight.

As the Task Force reviewed the current statutes and rules, they particularly focused on developing a fair regulatory package that would be less burdensome on the regulated industry while continuing to provide protections for the public. One of the Task Force's recommendations was to shift regulation of pesticide applications by golf courses from OPM to ADA. As part of that recommendation, the Task Force approved specific changes to A.R.S. § 3-363 and ADA's rules that would be applicable to golf course regulation.

The Task Force submitted its recommendations for changing the OPM and ADA statutes and rules to the Governor, the President of the Senate, and the Speaker of the House in November 2012. Although the Task Force knew that the Legislature was only responsible for changing statutes, it wanted to make the Legislature aware of its recommended rule changes as well so that the Legislature would be aware of the overall effect of the recommended statutory changes. The Task Force's recommendations on statutory changes became SB1290 (2013) (OPM statutes) and SB1143 (2013), albeit with a few changes made by the Legislature. Both bills passed and were signed into law. See Laws 2013, Ch. 125 and Laws 2013, Ch. 64.

Pursuant to the new legislation ADA published an exempt rulemaking amending eight rules and a table and adopting in substantial part the changes to the ADA rules recommended by the Task Force, as submitted to the Governor, President of the Senate, and Speaker of the House in November 2012. *See* 19 A.A.R. 3130, October 11, 2013.

The current rulemaking is identical to the rulemaking in 19 A.A.R. 3130, October 11, 2013. The Department is readopting the rulemaking to allow for public comment and make permanent the fees established by the previous exempt rulemaking.

a. The conduct and its frequency of occurrence that the rule is designed to change:

The exempt rulemaking has the force and effect of law. The only conduct that would potentially be changed by the rulemaking is the payment of fees to the Department for licensing pesticide usage activities on golf courses. This rulemaking will not change the current conduct it will simply continue the current conduct.

b. The harm resulting from the conduct the rule is designed to change and the likelihood it will continue to occur if the rule is not changed:

If the Department did not publish this rulemaking the only harm that would occur would be that the fee requirements established under the exempt rulemaking would no longer be enforceable. Thus, the state budget could be affected as the Department would have to provide licensing services free of charge.

c. The estimated change in frequency of the targeted conduct expected from the rule change:

There will be no change in the frequency of the conduct from the rule change. The rules will instead continue the current conduct.

2. A brief summary of the information included in the economic, small business, and consumer impact statement:

Because the only practical effect of this rulemaking is that it makes permanent the fees for licensing services, there is very little economic, small business, or consumer impact, and the impact that will occur will be the same as the impact under the current rules.

3. The person to contact to submit or request additional data on the information included in the economic, small business, and consumer impact statement:

a. Name: Jack Peterson

b. Address: 1688 W. Adams, Phoenix, AZ 85007

c. Telephone number: (602) 542-3575

d. Fax number: (602) 542- 0466

e. E-mail address: jpeterson@azda.gov

4. Persons who will be directly affected by, bear the costs of, or directly benefit from the rulemaking:

These changes will directly affect golf courses that perform pesticide applications.

5. Cost-benefit analysis:

   a. Costs and benefits to state agencies directly affected by the rulemaking:

      There will be no direct benefit to a specific state agency, because the fees collected are deposited in the state general fund. The rulemaking indirectly benefits all state agencies by continuing the collection of fees for services, as anticipated by the Legislature, and necessary to effect the state budget.

      The number of new full-time employees at the implementing agency required to implement and enforce the proposed rule:

      None

   b. Costs and benefits to political subdivisions directly affected by the rulemaking:

      None.

   c. Costs and benefits to businesses directly affected by the rulemaking:

      Benefit: affected business will have an opportunity to comment on the rules.

      Cost: affected businesses will have to continue paying fees for licensing services.

6. Impact on private and public employment:

   None.

7. Impact on small businesses:

   a. Identification of the small businesses subject to the rulemaking:

      Golf courses meeting the definition of a small business under state statutes are subject to the rulemaking. The Department does not keep records of the number of employees or gross receipts of the businesses it regulates, so it is not possible to determine with specificity the number of businesses effected. The Department issued 286 Golf Course Applicator licenses in FY 2015.

   b. Administrative and other costs required for compliance with the rulemaking:

      There will be no addition costs for compliance. Business will have the continued cost of paying for licensing fees.

   c. Description of methods that may be used to reduce the impact on small businesses:

      i. Establish less costly or less stringent compliance or reporting requirements:

         The Department could allow the fee requirements to expire, but does not believe the legislature intended it to do so, nor does it believe that would be fair to similarly regulated businesses that are required to pay licensing fees.

ii. Establish less costly schedules or less stringent deadlines for compliance or reporting requirements:

The rulemaking does not establish any schedules or deadlines for compliance and reporting and furthermore the Department believes the previously established schedules and deadlines are as least costly and stringent as possible.

iii. Consolidate or simplify compliance or reporting requirements:

The rulemaking does not establish any compliance or reporting requirements and furthermore the Department believes the previously established compliance and reporting requirements are consolidated and simple.

iv. Establish separate performance standards:

The rulemaking does not establish any performance standards and furthermore the Department has established different performance standards for different types of regulated activity.

v. Exempt small businesses from any or all requirements:

The purpose of the rules is to provide minimum standards for pesticide usage. The control measures needed are not dependent on the size of the business. Therefore, the Department believes that separate performance standards for small businesses would hurt the effectiveness of the rule in achieving its objective. However, the Department has different regulatory controls for different types of businesses engaging in different types of pesticide usage and services.

8. Cost and benefit to private persons and consumers who are directly affected by the rulemaking:

This rulemaking will not directly affect private persons or consumers other than golf courses that apply pesticides. The cost and benefit to those individuals is described above.

9. Probable effects on state revenues:

The Department collected $28,600 from the issuance of the 286 licenses to golf courses.

10. Less intrusive or less costly alternative methods considered:

The Department could allow the fee requirements to expire or make other changes to the rules related to the regulation of pesticide application by golf courses.

a. Monetizing of the costs and benefits for each option:

The cost of not charging the fee would be approximately $28,600 based on FY 2015.

The state and the Department would need to spend considerable amounts of monetary resources to determine if alternative regulations for the application of pesticide by golf courses could be done in a less intrusive or less costly alternative. As discussed above an extensive study was conducted by the Department on this issue which ultimately produced these rules.

b. Rationale for not using non-selected alternatives:

The Department did not select allowing the fee to expire because it does not believe that was the Legislature's intent or that it would be fair to similarly regulated businesses required to pay similar fees.

The Department did not make other changes to these regulations because these rules were produced after an extensive study that allowed for numerous public comments. The Department does not find it necessary or economical to undertake that process again. Nor does the Department believe it should second guess the substance of the regulations that were produced as a result of the process.

11. A description of any data on which a rule is based with a detailed explanation of how the data was obtained and why the data is acceptable data. An agency advocating that any data is acceptable data has the burden of proving that the data is acceptable. For the purposes of this paragraph, "acceptable data" means empirical, replicable and testable data as evidenced in supporting documentation, statistics, reports, studies, or research:

None.

TITLE 3. AGRICULTURE

CHAPTER 3. DEPARTMENT OF AGRICULTURE ENVIRONMENTAL SERVICES DIVISION

Authority: A.R.S. §§ 3-341 et seq. and 3-3101 et seq.

Title 3, Chapter 3, Article 1, Section R3-3-101 renumbered from Title 3, Chapter 10, Article 1, Section R3-10-101; Title 3, Chapter 3, Article 2, Sections R3-3-201 through R3-3-212 renumbered from Title 3, Chapter 10, Article 2, Sections R3-10-201 through R3-10-212; Title 3, Chapter 3, Article 3, Sections R3-3-301 through R3-3-314 renumbered from Title 3, Chapter 10, Article 2, Sections R3-10-301 through R3-10-314; Title 3, Chapter 3, Article 4, Sections R3-3-401 through R3-3-404 renumbered from Title 3, Chapter 10, Article 4, Sections R3-10-401 through R3-10-404; Title 3, Chapter 3, Article 5, Sections R3-3-501 through R3-3-506 renumbered from Title 3, Chapter 10, Article 5, Sections R3-10-501 through R3-10-506; Title 3, Chapter 3, Article 6, Sections R3-3-601 through R3-3-617 renumbered from Title 3, Chapter 10, Article 6, Sections R3-10-601 through R3-10-617; Title 3, Chapter 3, Article 7, Sections R3-3-701 through R3-3-712 renumbered from Title 3, Chapter 3, Article 1, Sections R3-3-01 through R3-3-12; Title 3, Chapter 3, Article 8, Sections R3-3-801 through R3-3-812 renumbered from Title 3, Chapter 3, Article 2, Sections R3-3-21 through R3-3-32; Title 3, Chapter 3, Article 9, Sections R3-3-901 through R3-3-916 renumbered to Title 3, Chapter 3, Article 3, Sections R3-3-41 through R3-3-56 (Supp. 91-4).

New Sections R3-10-101, R3-10-201 through R3-10-212, R3-10-301 through R3-10-306, R3-10-308 through R3-10-312, R3-10-401 through R3-10-403, R3-10-501 through R3-10-505, and R3-10-601 through R3-10-617 adopted effective November 20, 1987.

Former Sections R3-10-01, R3-10-03, R3-10-20 through R3-10-25, R3-10-40 through R3-10-42, R3-10-42.01, R3-10-43 through R3-10-62, R3-10-64 through R3-10-66, R3-10-70, R3-10-71, R3-10-73 through R3-10-75, R3-10-77 through R3-10-87, R3-10-89, and R3-10-91 repealed effective November 20, 1987.

ARTICLE 1. GENERAL PROVISIONS

Section
R3-3-101. Definitions
R3-3-102. Licensing Time-frames
Table 1. Time-frames (Calendar Days)

ARTICLE 2. PERMITS, LICENSES, AND CERTIFICATION

Section
R3-3-201. Regulated Grower Permit; Fee
R3-3-202. Core Examination
R3-3-203. Seller Permit; Fee; Responsible Individual
R3-3-204. Agricultural Aircraft Pilot License; Examination; Fee; Renewal
R3-3-205. Custom Applicator License; Examination; Fee; Renewal
R3-3-206. Tag; Fee
R3-3-207. Agricultural Pest Control Advisor License; Examination; Fee; Renewal; Exemption
R3-3-208. Applicator Certification; Examination; Fee; Renewal
R3-3-209. License and Fee Exemptions
R3-3-210. Additional Grounds for Revocation, Suspension, or Denial of a License, Permit, or Certification
R3-3-211. CEU Course Approval; Subject Approval
R3-3-212. Experimental Use Permit
Appendix A. Testing Categories

ARTICLE 3. PESTICIDE USE, SALES, AND EQUIPMENT

Section
R3-3-301. General
R3-3-302. Form 1080; Requirement for Written Recommendation
R3-3-303. Experimental Use
R3-3-304. Pesticide Management Areas; Criteria for Designation
R3-3-305. Pesticide Sales
R3-3-306. Receipt of Restricted Use Pesticides by Noncertified Persons
R3-3-307. Aircraft and Agricultural Aircraft Pilots
R3-3-308. Pesticide Containers and Pesticides; Storage and Disposal
R3-3-309. Returnable, Reusable, Recyclable, and Reconditionable Pesticide Containers
R3-3-310. Fumigation Use
R3-3-311. Repealed
R3-3-312. Renumbered
R3-3-313. Renumbered
R3-3-314. Renumbered

ARTICLE 4. RECORDKEEPING AND REPORTING

Section
R3-3-401. Pesticide Seller Records
R3-3-402. Private Applicator Records; Restricted Use Pesticide
R3-3-403. Bulk Release Report
R3-3-404. Form 1080; Reports to the Department
R3-3-405. Disposal Records; Agricultural Pesticide Concentrate

ARTICLE 5. NONEXCLUSIVE LISTS OF SERIOUS, NONSERIOUS, AND DE MINIMIS VIOLATIONS

Section
R3-3-501. Serious Violations
R3-3-502. Nonserious Violations
R3-3-503. De minimis Violations
R3-3-504. Mitigation
R3-3-505. Unlisted Violations
R3-3-506. Penalty and Fine Point System

ARTICLE 6. REPEALED

Article 6, consisting of Sections R3-3-601 through R3-3-617, repealed effective April 11, 1994 (Supp. 94-2).

ARTICLE 7. PESTICIDE

Title 3, Chapter 3, Article 1, Sections R3-3-01 through R3-3-12 renumbered to Title 3, Chapter 3, Article 7, Sections R3-3-701 through R3-3-712 (Supp. 91-4).

Section
R3-3-701. Definitions
R3-3-702. Pesticide Registration; Fee
R3-3-703. General Provisions
R3-3-704. Labels
R3-3-705. Renumbered
R3-3-706. Renumbered
R3-3-707. Renumbered
R3-3-708. Renumbered
R3-3-709. Renumbered
R3-3-710. Renumbered
R3-3-711. Renumbered

R3-3-712. Renumbered

ARTICLE 8. FERTILIZER MATERIALS

Title 3, Chapter 3, Article 2, Sections R3-3-21 through R3-3-32 renumbered to Title 3, Chapter 3, Article 8, Sections R3-3-801 through R3-3-812 (Supp. 91-4).

Section
R3-3-801. Definitions
R3-3-802. Licensure; Specialty Fertilizer Registration; Fees
R3-3-803. Tonnage Reports; Inspection Fee
R3-3-804. General Provisions
R3-3-805. Repealed
R3-3-806. Repealed
R3-3-807. Repealed
R3-3-808. Repealed
R3-3-809. Repealed
R3-3-810. Repealed
R3-3-811. Repealed
R3-3-812. Renumbered

ARTICLE 9. COMMERCIAL FEED

Title 3, Chapter 3, Article 3, Sections R3-3-41 through R3-3-56 renumbered to Title 3, Chapter 3, Article 9, Sections R3-3-901 through R3-3-916 (Supp. 91-4).

Section
R3-3-901. Definitions
R3-3-902. Licensure; Fee; Ammoniation
R3-3-903. Tonnage Reports; Inspection Fee
R3-3-904. Milk and Milk Products Decharacterized for Use as Commercial Feed
R3-3-905. Labeling; Precautionary Statements
R3-3-906. Non-protein Nitrogen
R3-3-907. Repealed
R3-3-908. Repealed
R3-3-909. Repealed
R3-3-910. Drug and Feed Additives
R3-3-911. Repealed
R3-3-912. Repealed
R3-3-913. Sampling Methods
R3-3-914. Repealed
R3-3-915. Repealed
R3-3-916. Repealed

ARTICLE 10. AGRICULTURAL SAFETY

(Authority: A.R.S. § 3-3101 et seq.)

Title 3, Chapter 8, Article 2, Sections R3-8-201 through R3-8-208 renumbered to Title 3, Chapter 3, Article 10, Sections R3-3-1001 through R3-3-1008 (Supp. 91-4).

New Article 7 adopted effective July 13, 1989. (Supp. 89-3).

Article 2, consisting of Sections R3-2-201 through R3-8-208, transferred from the Industrial Commission, Title 4, Chapter 13, Article 7, Sections R4-13-701 through R4-13-708, pursuant to Laws 1990, Ch. 374, § 445 (Supp. 91-3).

Laws 1981, Ch. 149, effective January 1, 1982, provided for the transfer of the Office of Fire Marshal from the Industrial Commission to the Department of Emergency and Military Affairs, Division of Emergency Services (Supp. 82-2).

Section
R3-3-1001. Definitions
R3-3-1002. Worker Protection Standards
R3-3-1003. Pesticide Safety Training
R3-3-1004. Notification Requirements for Farm Labor Contractors
R3-3-1005. Container Used for Mixing or Applying Pesticides
R3-3-1006. Agricultural Emergency
R3-3-1007. Violations and Civil Penalties
R3-3-1008. Penalty Adjustments
R3-3-1009. Failure to Abate
R3-3-1010. Calculation of Additional Penalties For Unabated Violations
R3-3-1011. Repeated or Willful Violations
R3-3-1012. Citation; Posting

ARTICLE 11. ARIZONA NATIVE PLANTS

Article 11, consisting of Sections R3-3-1101 through R3-3-1111 and Appendix A, recodified from 3 A.A.C. 4, Article 6 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1).

Section
R3-3-1101. Definitions
R3-3-1102. Protected Native Plant Destruction by a Private Landowner
R3-3-1103. Disposal and Salvage of Protected Native Plants by a State Agency
R3-3-1104. Protected Native Plant Permits; Tags; Seals; Fees
R3-3-1105. Scientific Permits; Noncommercial Salvage Permits
R3-3-1106. Protected Native Plant Survey; Fee
R3-3-1107. Movement Permits; Tags, Seals, and Cord Use
R3-3-1108. Recordkeeping; Salvage Assessed and Harvest Restricted Native Plants
R3-3-1109. Arizona Native Plant Law Education
R3-3-1110. Permit Denial
R3-3-1111. Repealed
Appendix A. Protected Native Plants By Category

ARTICLE 1. GENERAL PROVISIONS

R3-3-101. Definitions

In addition to the definitions in A.R.S. §§ 3-341 and 3-361, the following terms apply to Articles 1 through 5 of this Chapter:

"Acute toxicity" means adverse physiological effects that result from a single dose or single exposure to a chemical; or any poisonous effect produced by a single dose or single exposure to a chemical within a short period of time, usually less than 96 hours.

"Adulterate" means to change a pesticide so that:

Its strength or purity falls below the standard of quality stated on the labeling under which it is sold,

Any substance has been substituted wholly or in part for the pesticide, or

Any constituent of the pesticide has been wholly or in part abstracted.

"Agricultural aircraft pilot" means any individual licensed by the Department who pilots an agricultural aircraft to apply a pesticide.

"Agricultural commodity" means any plant, animal, plant product, or animal product produced for commercial or research purposes.

"Agricultural establishment" means any farm, forest, nursery, or greenhouse.

"Agricultural purpose" means use of a pesticide on an agricultural commodity. It excludes the sale or use of pesticides, in properly labeled packages or containers, for either of the following:

Home use, or

Use in swimming pools or spas.

"Aircraft" means any mechanism used in flight, excluding a remote-controlled mechanism.

"ALJ" means an individual or the Director who sits as an administrative law judge, who conducts administrative hearings in a contested case or an appealable agency action, and who makes decisions regarding the contested case or appealable agency action. A.R.S. § 41-1092(1)

"Animal" means all vertebrate and invertebrate species, including, but not limited to, humans and other mammals, birds, fish and shellfish. A.R.S. § 3-341(3)

"Application site" means the specific location, crop, object, or field to which a pesticide is or is intended to be applied.

"Applicator" means any individual who applies, or causes to have applied, any pesticide on an agricultural establishment or golf course.

"Authorized activities" means, for compliance with A.R.S. § 3-365(D), any organized activities scheduled at a school or child care facility that use the school or child care facility or the school or child care grounds and for which the sponsors or organizers of the activity have received the written approval of a responsible administrative official of the school or child care facility.

"Buffer zone" means an area of land that allows pesticide deposition and residues to decline to a level that poses a reasonable certainty of no harm to a defined area.

"Bulk release" means the release of any pesticide or mixture of pesticides that poses a potential risk to property, human health, or the environment in volumes greater than those prescribed by the pesticide label for the application site. A pesticide dripping from a spray nozzle or minor splashing during mixing is not a bulk release.

"Certified applicator" means any individual who is certified by the Department to use or supervise the use of any restricted use pesticide or to use any pesticide on a golf course.

"CEU" means continuing education unit.

"Child care facility" means any facility in which child care is regularly provided for compensation for five or more children not related to the proprietor and is licensed as a child care facility by the Arizona Department of Health Services. A.R.S. § 36-881(3). Child care facilities are commonly known as day care centers.

"Commercial applicator" means a certified applicator (whether or not the applicator is a private applicator with respect to some uses) who uses or supervises the use of a restricted use pesticide for any purpose or on any property other than property owned or controlled by:

The applicator;

The applicator's employer; or

Another person, if the application is performed without compensation, other than trading of personal services between producers of agricultural commodities.

"Contamination" means a concentration of pesticide sufficient to violate state or federal water, soil, food, feed, or air contamination standards, except if legally applied.

"Continued pesticide application" means the continuance of an interrupted application of the same pesticide to the same application site within the same section, township, and range within the same reporting period.

"Custom application equipment" means aircraft, remote-controlled equipment, and ground equipment used for pesticide application by a custom applicator.

"Custom applicator" means any person, except a person regulated by the OPM, who applies pesticides for hire or by aircraft.

"Defoliation" means killing or artificially accelerating the drying of plant tissue with or without causing abscission.

"Device" means any instrument or contrivance that is intended to be used for trapping, destroying, repelling, or mitigating any pest or any other form of plant or animal life, other than a human being and a bacterium, virus, or other microorganism on or in a living human being or other living animal. Device does not include firearms, mechanical traps, or equipment used for the application of pesticides if the application equipment is sold separately.

"Diluent" means any substance added to a pesticide before application to reduce the concentration of the active ingredient in the mixture.

"Direct release" means to apply a pesticide outside the boundaries of an application site, at the time of application, while the valve controlling the normal flow of pesticide from the application device is in the open position and the application device is not within the confines of the application site. Direct release does not mean the drift or discharge of a pesticide caused by a mechanical malfunction of the application device that is beyond the control of the operator. Direct release does not mean a release caused by accident, or done to avoid an accident that would have resulted in greater harm than that caused by the pesticide release.

"Disposal" means discarding a pesticide or pesticide container that results in the deposit, dumping, burning, or placing of the container or unused pesticide on land or into the air or water.

"Drift" means the physical movement of pesticide through the air at the time of a pesticide application from the application site to any area outside the boundaries of the application site. Drift does not include movement of a pesticide or associated degradation compounds to any area outside the boundaries of an application site if the movement is caused by erosion, run off, migration, volatility, or windblown soil particles that occur after application, unless specifically addressed on the pesticide label with respect to drift control requirements.

"EPA" means the United States Environmental Protection Agency.

"Experimental use permit" means a permit issued by the EPA, or the Department pursuant to A.R.S. § 3-350.01, to a person for the purpose of experimentation, which includes the accumulation of information necessary for the registration of a pesticide.

"Exposure" means the inhalation or ingestion of a pesticide, or eye or skin contact with a pesticide.

"Family member" means spouse, child, sibling, parent, grandparent, grandchild, stepparent, or stepchild.

"FFDCA" means the Federal Food, Drug and Cosmetic Act, as amended.

"FIFRA" means the Federal Insecticide, Fungicide and Rodenticide Act, as amended, 7 U.S.C. § 136 et seq.

"Fumigant" means a substance or mixture of substances that produces gas vapor or smoke intended to control a pest in stored agricultural commodities or to control burrowing rodents.

"Golf applicator" means a certified applicator who uses a pesticide for the maintenance of a golf course that is owned or controlled by the applicator or the applicator's employer.

"Health care institution" means any institution that provides medical services, nursing services, health screening services, and other health-related services, and is licensed by the Arizona Department of Health Services.

"Highly toxic pesticide" means a pesticide with an acute oral LD_{50} of 50 milligrams per kilogram of body weight or less, dermal LD_{50} of 200 milligrams per kilogram of body weight or less, or inhalation LD_{50} of 0.2 milligrams per liter of air or less, and the label bears the signal words "danger" and "poison" and shows a skull and crossbones.

"Individual" means a human being.

"Insect" means any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class insecta, comprising six-legged, usually winged forms, as for example, beetles, bugs, bees, and flies, and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as for example, spiders, mites, ticks, centipedes and wood lice. A.R.S. § 3-341(14)

"Integrated Pest Management" or "IPM" means a sustainable approach to managing pests that uses any combination of biological, chemical, cultural, genetic, manual, or mechanical tools or techniques in a way that minimizes health, environmental, and economic risks.

"Label" means the written, printed or graphic matter on, or attached to, the pesticide or device, or the immediate container thereof, and the outside container or wrapper of the retail package, if there is any, of the pesticide or device. A.R.S. § 3-341(15)

"Labeling" means all labels and other written, printed or graphic matter:

> *Upon the pesticide or device or any of its containers or wrappers.*
>
> *Accompanying the pesticide or device at any time.*
>
> *To which reference is made on the label or in literature accompanying the pesticide or device, except when accurate, non-misleading reference is made to current official publications of the United States departments of agriculture or interior, the United States public health service, state experiment stations, state agricultural colleges or other similar federal institutions or official agencies of the state or other states authorized by law to conduct research in the field of pesticides.* A.R.S. § 3-341(16).

"LD_{50}" means a single dose of pesticide that will kill at least 50 percent of laboratory test animals as determined by an EPA- approved procedure.

"Livestock" means clovenhoofed animals, horses, mules, or asses.

"OPM" means the Office of Pest Management.

"PCA" or "agricultural pest control advisor" means any individual licensed by the Department who, as a requirement of, or incidental to, the individual's employment or occupation:

> Offers a written recommendation to a regulated grower or to any public or private agency concerning the control of any agricultural pest,
>
> Claims to be an authority or general advisor on any agricultural pest or pest condition, or
>
> Claims to be an authority or general advisor to a regulated grower on any agricultural pest.

"Person" means any individual, partnership, association, corporation or organized group of persons whether incorporated or not. A.R.S. § 3-341(19)

"Pest" means:

> *Any weed, insect, vertebrate pest, nematode, fungus, virus, bacteria or other pathogenic organisms.*
>
> *Any other form of terrestrial or aquatic plant or animal life, except virus, bacteria or other microorganism on or in living humans or other living animals, which the director declares to be a pest for the purpose of enforcement of this Article.* A.R.S. § 3-341(20)

"Pesticide" means any substance or mixture of substances intended to be used for defoliating plants or for preventing, destroying, repelling or mitigating insects, fungi, bacteria, weeds, rodents, predatory animals or any form of plant or animal life which is, or which the director may declare to be, a pest which may infest or be detrimental to vegetation, humans, animals or households or which may be present in any environment. A.R.S. § 3-361(6)

"Pesticide container" means any container with an interior surface that is in direct contact with a pesticide.

"Pesticide use" means the sale, processing, storing, transporting, handling or applying of a pesticide and disposal of pesticide containers. A.R.S. § 3-361(7)

"Private applicator" means a certified applicator who uses or supervises the use of a restricted use pesticide for producing an agricultural commodity on property owned or controlled by:

> The applicator;
>
> The applicator's employer; or
>
> Another person, if the pesticide is applied without compensation, other than trading of personal services between producers of agricultural commodities.

"Property boundary" means the legal boundary of the land on which a child care facility, health care institution, residence, or school sits, unless another boundary is established by a written agreement with the owner of the child care facility, health care institution, residence, or school. Under a written agreement, the parties shall not establish a boundary that is less than ten feet from the child care facility, health care institution, residence, or school.

"Ready-to-use" means a registered pesticide, in the manufacturer's original container, that does not require dilution by the end user.

"Regulated grower" means a person who acquires or purchases pesticides or contracts for the application of pesticides to agricultural commodities, onto an agricultural establishment, or onto a golf course as a part of the person's normal course of employment or activity as an owner, lessee, sublessee, sharecropper, or manager of the land to which the pesticide is applied.

"Reporting period" means no later than the Thursday following the calendar week in which an application is completed.

"Residence" means a dwelling place where one or more individuals are living.

"Responsible individual" means an individual at a seller's location who has passed the core examination prescribed in R3-3-202 and is designated by the seller under R3-3-203.

"Restricted use pesticide" means a pesticide classified as such by the EPA. A.R.S. § 3-361(8).

"School" means a public institution established for the purposes of offering instruction to pupils in programs for pre-

school children with disabilities, kindergarten programs or any combination of grades one through twelve. A.R.S. § 15-101(19). School includes a private institution with membership in the North Central Association of Colleges and Schools serving students in kindergarten programs or any combination of grades one through twelve.

"Seller" means any person selling or offering for sale a restricted use pesticide or other type of pesticide intended to be used for an agricultural purpose.

"Service container" means a container used to temporarily hold, store, or transport a pesticide concentrate or a registered, ready-to-use pesticide other than the original labeled container, measuring device, or application device.

"Small scale test" means a test using a pesticide on land or water acreage as described at 40 CFR 172.3(c)(1) or (2).

"Spot application" means a treatment in an area other than a greenhouse or nursery operation that is restricted to an area of a field that is less than the entire field.

"Tag" means a custom application equipment license issued by the Department to a custom applicator licensee.

"Triple rinse" means to flush out a container at least three times, each time using a volume of water, or other diluent as specified on the label, equal to a minimum of 10 percent of the container's capacity or a procedure allowed by the label that produces equivalent or better results.

"Unreasonable adverse effect" means any unreasonable risk to a human being or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or a human dietary risk from residues that result from a use of a pesticide in or on any food as documented by the Department through its investigation.

"Weed" means any plant which grows where not wanted. A.R.S. § 3-341(24)

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-101 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-102. Licensing Time-frames

A. Overall time-frame. The Department shall issue or deny a license within the overall time-frames listed in Table 1 after receipt of the complete application. The overall time-frame is the total of the number of days provided for the administrative completeness review and the substantive review.

B. Administrative completeness review.

1. The administrative completeness review time-frame established in Table 1 begins on the date the Department receives the application. The Department shall notify the applicant in writing within the administrative completeness review time-frame whether the application or request is incomplete. The notice shall specify what information is missing. If the Department does not provide notice to the applicant within the administrative completeness review time-frame, the Department considers the application complete.
2. An applicant with an incomplete license application shall supply the missing information within the completion request period established in Table 1. The administrative completeness review time-frame is suspended from the date the Department mails the notice of missing information to the applicant until the date the Department receives the information.
3. If the applicant fails to submit the missing information before the expiration of the completion request period, the Department shall close the file, unless the applicant requests an extension. An applicant whose file has been closed may obtain a license by submitting a new application.

C. Substantive review. The substantive review time-frame established in Table 1 shall begin after the application is administratively complete.

1. If the Department makes a comprehensive written request for additional information, the applicant shall submit the additional information identified by the request within the additional information period provided in Table 1. The substantive review time-frame is suspended from the date of the Department request until the information is received by the Department. If the applicant fails to provide the information identified in the written request within the additional information period, the Department shall deny the license.
2. The Department shall issue a written notice granting or denying a license within the substantive review time-frame. If the application is denied, the Department shall send the applicant written notice explaining the reason for the denial with citations to supporting statutes or rules, the applicant's right to seek a fair hearing, and the time period in which the applicant may appeal the denial.

Historical Note

Adopted effective October 8, 1998 (Supp. 98-4).

Table 1. Time-frames (Calendar Days)

License	Authority	Administrative Completeness Review	Response to Completion Request	Substantive Completeness Review	Response to Additional Information	Overall Time-frame
Regulated Grower Permit	A.R.S. § 3-363	14	14	56	14	70
Seller Permit	A.R.S. § 3-363	14	14	56	14	70
Agricultural Aircraft Pilot License	A.R.S. § 3-363	14	14	56	14	70
Custom Applicator License	A.R.S. § 3-363	14	14	63	14	77
Application Equipment Tag	A.R.S. § 3-363	14	14	56	14	70
Agricultural Pest Control Advisor (PCA) License	A.R.S. § 3-363	14	14	63	14	77
Commercial Applicator Certification (PUC)	A.R.S. § 3-363	14	14	63	14	77

Private Applicator Certification (PUP)	A.R.S. § 3-363	14	14	63	14	77
Private Fumigation Certification	A.R.S. § 3-363	14	14	63	14	77
Golf Applicator Certification (PUG)	A.R.S. § 3-363	14	14	63	14	77
Experimental Use Permit	A.R.S. § 3-350.01	14	14	28	14	42
Pesticide Registration	A.R.S. § 3-351	14	14	91	14	105
License to Manufacture or Distribute Commercial Feed	A.R.S. § 3-2609	14	14	42	14	56
Commercial Fertilizer License Specialty Fertilizer Registration	A.R.S. § 3-272	14 14	14 14	42 56	14 14	56 70
Agricultural Safety Trainer Certification	A.R.S. § 3-3125	28	14	28	14	56
ARIZONA NATIVE PLANTS						
Notice of Intent Confirmation Notice of Intent	A.R.S. § 3-904	14	14	14	14	28
• Salvage Assessed Native Plant Permits • Salvage Restricted Native Plant Permits • Scientific Permits	A.R.S. § 3-906	14 14 14	14 14 14	14 14 14	14 14 14	28 28 28
Movement Permits	A.R.S. § 3-906	14	14	14	14	28
Annual Permits for Harvest-Restricted Native Plants	A.R.S. § 3-907	14	14	14	14	28

Historical Note

Adopted effective October 8, 1998 (Supp. 98-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by final rulemaking at 10 A.A.R. 2663, effective June 8, 2004 (Supp. 04-2). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

ARTICLE 2. PERMITS, LICENSES, AND CERTIFICATION

R3-3-201. Regulated Grower Permit; Fee

A. A regulated grower shall not order, purchase, take delivery of, use, or recommend the use of any pesticide for an agricultural purpose or golf course without a valid regulated grower permit, issued by the Department.

B. A person applying for a regulated grower permit, initial or renewal, shall provide the following information on a form obtained from the Department:
1. Name, signature, and social security or employer's identification number of the applicant;
2. Date of the permit application;
3. Name, address, e-mail address, if applicable, and daytime telephone number of the company or farm where the applicant may be reached;
4. Permit renewal period; and
5. Sections, townships, ranges, and acres of the land where pesticides may be applied.

C. The applicant shall submit the completed application to the Department accompanied by a $20 fee for each year or portion of the year during which the permit is valid.

D. A regulated grower permit is not transferable, expires on December 31, and is valid for one or two years depending on the renewal period selected by the applicant.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-202. Core Examination

A. In addition to other requirements prescribed by this Article, an individual seeking any of the following shall obtain a score of at least 75 percent on a written core examination administered by the Department:
1. Designation as a responsible individual;
2. An initial license as:
   a. An agricultural aircraft pilot;
   b. A custom applicator;
   c. An agricultural pest control advisor; or
3. An initial certification as:
   a. A private applicator;
   b. A commercial applicator; or
   c. A golf applicator.

B. The Department shall administer examinations by appointment at every Environmental Services Division office. The Department shall ensure that the examination tests the knowledge and understanding of the following subjects that are described in more detail at Appendix A, subsections (A) and (C):
1. Pesticide use, safety, and toxicity;
2. Pesticide labels and labeling;
3. Pesticide terminology;
4. Common causes of accidents;
5. Necessity for protective equipment;
6. Poisoning symptoms;
7. Practical first aid; and
8. Statutes and rules relating to the sale, application, and use of pesticides.

C. An individual who fails the examination may retake the examination no more than three times in a 12-month period and

shall not retake an examination until at least seven days have elapsed from the date of the last examination.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-201 (Supp. 91-4). Former Section R3-3-202 renumbered to R3-3-203; new R3-3-202 made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-203. Seller Permit; Fee; Responsible Individual

A. A person shall not act as a seller without a valid seller permit, issued by the Department.

B. A seller shall obtain a seller permit for each physical location where the seller sells or offers for sale any restricted use pesticide or pesticide for an agricultural purpose within the state.

C. A person applying for a seller permit, initial or renewal, shall provide the following information on a form obtained from the Department:
1. Name and signature of the responsible individual, and license number, if applicable;
2. Date of the permit application;
3. Name, physical address, mailing address, e-mail address, if applicable, and daytime telephone number of the location selling a restricted use pesticide or a pesticide for an agricultural purpose;
4. Permit renewal period;
5. Name, e-mail address, and daytime telephone number of the Arizona contact for each out-of-state seller, if applicable;
6. Address where records required to be maintained under R3-3-401 will be kept;
7. Whether the applicant has had a similar license, permit, or certification revoked, suspended, or denied in this or any other jurisdiction during the three years before the date of application; and
8. If applicable, the number of the license or certificate of the responsible individual, and current seller permit number.

D. The applicant shall submit the completed application to the Department accompanied by a $100 fee for each year or portion of the year during which the permit is valid.

E. A seller permit is not transferable, expires on December 31, and is valid for one or two years, depending on the permit renewal period selected by the applicant. The Department shall not renew a seller permit unless the seller is in compliance with the provisions established in subsection (F), if applicable.

F. A seller shall designate a different responsible individual for each physical location in this state that sells or offers for sale any restricted use pesticide.
1. If a responsible individual terminates employment at an assigned location, the seller shall designate another responsible individual within 30 calendar days and notify the Department of the replacement.
2. For a responsible individual who is not a commercial applicator or a PCA:
   a. The core examination expires December 31, unless the initial examination is passed in the last quarter of a calendar year, in which case the expiration is December 31 of the following year; and
   b. The responsible individual shall retake and pass the core examination every year, unless the responsible individual completes three CEUs annually before the renewal date.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-203 (Supp. 91-4). Former Section R3-3-203 renumbered to R3-3-204; new R3-3-203 renumbered from R3-3-202 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-204. Agricultural Aircraft Pilot License; Examination; Fee; Renewal

A. An individual shall not act as an agricultural aircraft pilot without:
1. A valid agricultural aircraft pilot license issued under this Section, and
2. A valid commercial applicator certification issued under R3-3-208.

B. The Department shall not issue or renew an agricultural aircraft pilot license, and an existing agricultural aircraft pilot license is invalid unless the applicant or license holder has a valid commercial pilot's certificate issued by the Federal Aviation Administration and a valid commercial applicator certification.

C. An individual applying for an agricultural aircraft pilot license, initial or renewal, shall provide the following information on a form obtained from the Department:
1. Name, social security number, and signature of the applicant;
2. Date of application;
3. Address, e-mail address, if applicable, and daytime telephone number of the applicant;
4. License renewal period;
5. Name, physical address, mailing address, e-mail address, if applicable, and daytime telephone number of the applicant's employer, if applicable;
6. Copy of the applicant's commercial pilot certificate issued by the Federal Aviation Administration, if not previously filed with the Department;
7. Applicant's commercial applicator certification number; and
8. Whether the applicant has had a similar certification or license revoked, suspended, or denied in this or any other jurisdiction during the three years before the date of application and the nature of the violation.

D. The applicant shall submit the completed application to the Department, accompanied by a $50 fee for each year or portion of the year during which the license is valid.

E. An agricultural aircraft pilot license is not transferable, expires on December 31, and is valid for one or two years depending on the renewal period selected by the applicant.

F. Examinations.
1. The Department shall administer examinations by appointment at every Environmental Services Division office. In addition to the core examination required in R3-3-202, an applicant shall demonstrate knowledge and understanding of the following by scoring at least 75 percent on the written examination administered by the Department:
   a. Safe flight and application procedures, including steps to be taken before starting a pesticide application, such as survey of the area to be treated, and considering the possible hazards to public health;
   b. Calibration of aerial application equipment; and
   c. Operation and application in the vicinity of schools, child care facilities, health care institutions, and residences.
2. An individual who fails the examination may retake it no more than three times in a 12-month period and shall not

retake an examination until at least seven days have elapsed from the date of the last examination.

G. Renewal; expired license.
1. An applicant may renew an expired license without retaking the written examinations in subsection (F) under the following conditions:
   a. The applicant submits the completed application and fee within 30 days after the expiration date, and
   b. The applicant does not provide any pesticide-related service after the date the license expired until the date the renewal is effective.
2. All other applicants for renewal shall retake the written examinations prescribed in subsection (F).

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-204 (Supp. 91-4). Former Section R3-3-204 renumbered to R3-3-205; new R3-3-204 renumbered from R3-3-203 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-205. Custom Applicator License; Examination; Fee; Renewal

A. A person shall not act as a custom applicator without a valid custom applicator license issued by the Department.

B. A person applying for a custom applicator license, initial or renewal, shall provide the following information on a form obtained from the Department:
1. Name and signature of the applicant;
2. Date of the license application;
3. Name, physical address, mailing address, e-mail address, if applicable, and daytime telephone number of the business under subsection (C);
4. Tax identification number of the business;
5. License renewal period;
6. Whether the application is for ground or air custom application, or both;
7. Names and current certification numbers of the commercial applicators employed by the business, as prescribed in subsection (C)(1);
8. Evidence of insurance coverage, showing the name of the insurance carrier, policy number, policy term, policy limits, and any applicable exclusions; and
9. Whether the applicant has had a similar license revoked, suspended, or denied in this or any other jurisdiction during the last three years, and the nature of the violation.

C. The Department shall not issue or renew a custom applicator license and an existing custom applicator license is invalid unless the applicant or license holder:
1. Is a commercial applicator or employs at least one individual who is certified as a commercial applicator under R3-3-208;
2. Maintains or the business that employs the applicator or license holder maintains public liability, drift, and property damage insurance coverage with an aggregate amount of at least $300,000 during the licensing period. The applicant or license holder shall provide evidence of insurance coverage to the Department upon initial application, for each renewal, or upon request of the Department; and
3. Files with the Department a copy of the commercial applicator's valid Federal Aviation Administration commercial agricultural aircraft operator's certificate, if using aircraft. If not already on file with the Department, an applicant or license holder shall submit a copy of the certificate with the completed application form.

D. A custom applicator license holder may:
1. Temporarily relinquish a custom applicator license if the custom applicator:
   a. Advises the Department of termination of the insurance prescribed in subsection (C)(2), and the effective date of termination; and
   b. Ceases to act as a custom applicator on the termination date.
2. Reinstate the custom applicator license within the same licensing time period, without again paying the fee as prescribed in subsection (E), if the custom applicator:
   a. Purchases insurance as prescribed in subsection (C)(2), and
   b. Notifies the Department of the effective date of the insurance.

E. The applicant shall submit the completed application to the Department, accompanied by a $100 fee for each year, or portion of the year during which the license is valid.

F. A custom applicator license is not transferable, expires on December 31, and is valid for one or two years, depending on the renewal period selected by the applicant.

G. Examinations.
1. The Department shall administer examinations by appointment at every Environmental Services Division office. In addition to the core examination required in R3-3-202, an applicant shall demonstrate knowledge and understanding of the following by scoring at least 75 percent on the written examination administered by the Department:
   a. Calibration of application equipment;
   b. Aerial application procedures, if applicable; and
   c. Ground application procedures, if applicable.
2. An individual who fails the examination may retake it no more than three times in a 12-month period and shall not retake an examination until at least seven days have elapsed from the date of the last examination.

H. Renewal; expired license.
1. An applicant may renew an expired license without retaking the written examinations in subsection (G) under the following conditions:
   a. The applicant submits the completed application and fee within 30 days after the expiration date, and
   b. The applicant does not provide any pesticide-related service after the date the license expired until the date the renewal is effective.
2. All other applicants for renewal shall retake the written examinations prescribed in subsection (G).

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-205 (Supp. 91-4). Former Section R3-3-205 renumbered to R3-3-206; new R3-3-205 renumbered from R3-3-204 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-206. Tag; Fee

A. A custom applicator shall not use custom application equipment unless the equipment has a valid tag. The custom applicator licensee shall place and maintain a valid tag so that it is prominently displayed on the pesticide application equipment.

B. A person applying for a tag shall provide the following information on a form obtained from the Department:
1. Name and signature of the applicant;
2. Date of the application;
3. Address, e-mail address, if applicable, and daytime telephone number of the applicant;

4. Name, physical address, mailing address, e-mail address, if applicable, and daytime telephone number of the business, if applicable; and
5. Manufacturer, make, model and serial number, and if an aircraft, the aircraft registration number ("N" number) of the application equipment.

C. The Department shall not issue or renew a tag and an existing tag is invalid if the custom applicator license is invalid.

D. An applicant shall submit the completed application to the Department, accompanied by a $25 fee for each piece of equipment, for each year or portion of the year during which the tag is valid.

E. A tag expires on December 31, and is valid for the same time period as the custom applicator license.

F. A custom applicator licensee shall not transfer a tag except as follows:
1. If a licensed piece of equipment is destroyed, rendered unusable, or transferred out of the state, the custom applicator licensee may transfer the tag to another piece of equipment.
2. If a licensed piece of equipment is leased, sold, or traded, the custom applicator licensee shall transfer the tag with the equipment to the lessee or new owner.
3. Before transferring a tag, the custom applicator licensee shall notify the Department that the tag is being transferred and identify the person to whom the tag is being transferred or identify the piece of equipment to which the tag is being transferred, or the tag is invalid.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-206 (Supp. 91-4). Former Section R3-3-206 renumbered to R3-3-207; new R3-3-206 renumbered from R3-3-205 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-207. Agricultural Pest Control Advisor License; Examination; Fee; Renewal; Exemption

A. An individual shall not act as a PCA without a valid PCA license issued by the Department. To advise in any of the categories listed in subsection (I), a PCA shall pass the specific examination associated with the category.

B. An individual applying for a PCA license shall provide the following information on a form obtained from the Department:
1. The applicant's name, address, e-mail address, daytime telephone number, social security number, and signature;
2. Date of the application;
3. License renewal period;
4. Name, physical address, mailing address, e-mail address, and daytime telephone number of the applicant's employer, if applicable;
5. Examinations that the applicant has passed by category; and
6. Whether the applicant has had a similar license revoked, suspended, or denied in this or any other jurisdiction during the last three years, and the nature of the violation resulting in the revocation, suspension, or denial.

C. An individual applying for a PCA license, except an individual who holds or has held a PCA license in this state within the previous five years shall meet one of the following five sets of qualifications:
1. College degree.
   a. Possess a bachelor's degree (B.A. or B.S.), master's degree or doctorate degree in any subject; and
   b. Have completed 42 semester hours (63 quarter units) of college-level curricula as specified in subsection (D).
2. Master's degree in a biological science.
   a. Possess a master's degree in a biological science;
   b. Have 12 months of work experience related to a core area listed in subsection (D); and
   c. Have a letter from the institution, a faculty member, or a supervisor where the individual obtained the work experience certifying the time spent and describing the type of experience obtained by the individual.
3. Doctorate degree in a biological science.
   a. Possess a doctorate degree in a biological science; and either
   b. Meet the qualifications in subsection (C)(2)(b) and (C)(2)(c); or
   c. Have a letter of recommendation from the faculty member that supervised the dissertation or the division head of the discipline.
4. Other education with unlicensed experience.
   a. Have completed 42 semester hours (63 quarter units) of college-level curricula as specified in subsection (D);
   b. Have 24 months of work experience related to a core area listed in subsection (D); and
   c. Have a letter from the institution, a faculty member, or a supervisor where the individual obtained the work experience certifying the time spent and describing the type of experience obtained by the individual.
5. Other education with licensed experience.
   a. Be currently licensed as a pest control advisor (PCA) or equivalent in another state; and
   b. Have completed 42 semester hours (63 quarter units) of college-level curricula as specified in subsection (D), except that each year of verifiable licensed experience under subsection (C)(5)(a) within the previous 5 years qualifies for two semester hours up to 10 hours. The semester hours based on licensed experience do not reduce the minimum hours required from each individual core area.
   c. The applicant shall provide proof of the equivalency of a license from another state.

D. The 42 semester hours (63 quarter units) of college-level curricula specified in subsection (C) shall come from the core areas shown in the following table, with at least the minimum indicated hours (or units) coming from each individual core area. A single course shall not count toward the minimum hours of more than one core area. At least one course from the pest management systems and methods core area shall emphasize integrated pest management principles.

Core Area	Examples of Subjects	Sem. Hours	Qtr. Units
Physical, biological, and earth sciences, and mathematics	Inorganic chemistry; organic chemistry; biochemistry; plant biology or botany; general ecology; biology; genetics; plant physiology; zoology; post-algebra mathematics	12	18

Crop health	Soils and irrigation; vegetation management or weed science; plant pathology; entomology; plant nutrition or fertility; nematology; vertebrate management	6	9
Pest management systems and methods	Applied courses in entomology, plant pathology, vegetation management or weed science, and other pest management disciplines; pesticides or use of pesticides; pest control equipment systems; alternative cropping systems; sustainable or organic agricultural systems; biological control	3	4.5
Production systems	Horticulture; viticulture; forestry; agronomy; crop, vegetable, fruit or animal sciences; other production systems (e.g., wildlife production, cattle production)	3	4.5

E. Alternative curricula credits.
1. A current crop advisor certificate issued by the American Society of Agronomy qualifies for three semester hours in one of the following core areas: physical, biological and earth sciences and mathematics; crop health; or production systems.
2. Non-traditional courses such as a senior project, an internship, cooperative work experience, independent study, a dissertation or a thesis qualify for three semester hours in one of the core areas of crop health, pest management systems and methods, or production systems, as applicable.
3. For applicants with a bachelor's, master's, or doctorate degree, at least one year of full-time related work experience qualifies for three semester hours in one of the core areas of pest management systems and methods or production systems, as applicable.

F. In addition to the information required by subsection (B), an applicant shall submit to the Department:
1. An official transcript verifying the courses completed and the degrees granted to the applicant.
2. Documentation verifying alternative curricula relied on under subsection (E). Documentation of subsection (E)(2) and (E)(3) shall include a letter certifying completion and describing the activity from the institution, a faculty member or supervisor.
3. If applicable, the letter required for licensure under subsection (C).
4. A $50 fee.

G. A PCA license is not transferable, expires on December 31, and is:
1. Issued for up to one year as an initial license;
2. Renewed every one or two years, depending on the renewal period selected by the applicant; and
3. Renewed for all categories of license under subsection (I) for the same renewal period.

H. Renewal.
1. The continuing education requirement in subsection (H)(5) is not applicable to an individual who passes the examination prescribed in subsection (I) and who applies for a PCA license between October 1 and December 31 of the test year.
2. Upon renewal, a PCA license is valid for one or two years, depending on the renewal period selected by the applicant, provided the applicant meets the criteria prescribed under subsection (H).
3. An applicant shall submit the completed application, accompanied by a $50 fee for each licensing year or portion of the year during which the license is valid.
4. Renewal; expired license.
   a. An applicant may renew an expired license without retaking the written examinations under subsection (I) provided the applicant:
      i. Complies with the CEU requirements in subsection (H)(5),
      ii. Submits a completed application and fee within 30 days after the expiration date, and
      iii. Does not provide any pest control-related service from the date the license expired until the date the renewal is effective.
   b. All other applicants for renewal shall retake the applicable written examinations prescribed in subsection (I).
5. The Department shall not renew a PCA license unless, before the expiration of the current license, the licensee completes 15 CEUs for each year of the renewal period or passes any applicable examination prescribed in subsection (I). The licensee shall complete CEU credit during the calendar years the current license is in effect. CEUs earned that are in excess of the requirements do not carry forward for use with future renewals.
6. To obtain credit, the applicant shall provide the Department with documentation of completion of the CEU course.

I. Examinations.
1. The Department shall administer examinations by appointment at every Environmental Services Division office. In addition to the core examination required in R3-3-202, an applicant shall demonstrate knowledge and understanding of integrated pest management in any of the following categories by scoring at least 75 percent on a written examination:
   a. Weed control,
   b. Invertebrate control,
   c. Nematode control,
   d. Plant pathogen control,
   e. Vertebrate pest control,
   f. Plant growth regulators, or
   g. Defoliation.
2. An individual who fails the examination may retake it no more than two times in a 12-month period and shall not retake an examination until at least seven days have elapsed from the date of the last examination.

J. Exemption. An individual operating in an official capacity for a college or university, providing recommendations in a not-for-profit capacity, or merely furnishing information concerning general and labeling usage of a registered pesticide is not considered an authority or general advisor for the purposes of this Chapter.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-207 (Supp. 91-4). Former Section R3-3-207 repealed; new R3-3-207 renumbered from

R3-3-206 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by final rulemaking at 19 A.A.R. 3855, effective January 28, 2014 (Supp. 13-4).

R3-3-208. Applicator Certification; Examination; Fee; Renewal

A. An individual shall not act as a private applicator, golf applicator, or commercial applicator unless the individual is certified by the Department.

B. Application. An individual applying for either commercial, golf, or private applicator certification shall pay the applicable fee and submit a completed application to the Department containing the following information on a form obtained from the Department:
1. The applicant's name, address, e-mail address if applicable, daytime telephone number, Social Security number, and signature;
2. Date of the application;
3. Name, physical address, mailing address, e-mail address, if applicable, and daytime telephone number of the applicant's employer, if applicable;
4. Whether the application is for a commercial, golf, or private applicator certification;
5. If applicable, an indication the applicant seeks private applicator or golf applicator fumigation certification;
6. If applicable, an indication the applicant seeks golf applicator aquatic certification or golf restricted use pesticide certification;
7. For commercial certification, the categories in which the applicant seeks to be certified;
8. Whether the applicant has had a similar certification revoked, suspended, or denied in this or any other jurisdiction during the last three years, and the nature of the violation; and
9. Certification renewal period.

C. Fumigation certification.
1. Fumigation certification requires certification as a private applicator, a golf applicator, or a commercial applicator.
2. Fumigation certification allows a private applicator or a commercial applicator acting as a private applicator to use, apply, or supervise the use or application of a fumigant to an on-farm raw agricultural commodity or on-farm burrowing rodent problem.
3. Fumigation certification allows a golf applicator to use and apply a fumigant to a golf course burrowing rodent problem.

D. Golf applicator aquatic certification allows a golf applicator to use or apply an aquatic pesticide to a body of water on a golf course to control an aquatic pest problem.

E. Golf restricted use pesticide certification allows a golf applicator to use or apply restricted use pesticides to an ornamental and turf area of a golf course.

F. Examinations. The Department shall administer examinations by appointment at every Environmental Services Division office. An applicant shall achieve a passing score of 75 percent in the applicable subject area in order to receive initial certification.
1. Commercial applicator certification (PUC). In addition to the core examination required by R3-3-202, an applicant shall demonstrate knowledge and understanding of the subjects listed in Appendix A, subsection (B) for each commercial certification category sought.
2. Commercial certification categories. An individual may apply for commercial applicator certification in any of the following categories:
   a. Agricultural pest control;
   b. Forest pest control;
   c. Seed-treatment;
   d. Aquatic pest control;
   e. Right-of-way pest control;
   f. Public health pest control;
   g. Regulatory pest control: M-44 or rodent, if a government employee; or
   h. Demonstration and research pest control.
3. Private applicator (PUP) and golf applicator (PUG) certification. An applicant shall demonstrate knowledge and understanding of the core examination subjects listed in R3-3-202.
   a. Fumigation certification. An applicant seeking private applicator or golf applicator fumigation certification shall also pass a separate fumigation examination.
   b. Golf aquatic certification. An applicant seeking aquatic certification shall also pass a separate aquatics examination.
   c. Golf restricted use pesticide certification. An applicant seeking golf restricted use pesticide certification shall also pass a separate ornamental and turf examination.
4. An individual who fails an examination may retake it no more than three times in a 12-month period, and shall not retake an examination until at least seven days have elapsed from the date of the last examination.

G. Fee.
1. An applicant for private or commercial certification shall pay a $50 fee per year of certification.
2. An applicant for golf certification shall pay a $100 fee per year of certification.

H. Applicator certification is not transferable, expires on December 31, and is:
1. Issued for the remainder of the calendar year as an initial certification;
2. Renewed for one or two years, depending on the renewal period selected by the applicant; and
3. Renewed for all categories of certification for the same renewal period.

I. Renewal.
1. An applicant for renewal of an applicator certification shall select a one or two-year renewal period.
2. An applicant shall submit the completed application accompanied by the applicable fee for a one-year renewal or double the fee for a two-year renewal.
3. CEU requirements.
   a. The Department shall not renew a private applicator or golf applicator certification unless, prior to the expiration of the current certification, the applicator completes three CEUs for each year of the renewal period.
   b. The Department shall not renew a commercial applicator certification unless, prior to expiration of the current certification, the applicator completes six CEUs for each year of the renewal period.
   c. The Department shall not renew a fumigation certification unless, prior to the expiration of the current certification, the applicant qualifies to renew the applicant's private, golf, or commercial applicator certification under this subsection and completes three additional CEUs per year of the renewal period.
   d. The Department shall not renew a golf aquatic certification unless, prior to the expiration of the current certification, the applicant qualifies to renew the

applicant's golf applicator certification under this subsection and completes three additional CEUs per year of the renewal period. The three additional CEUs per year may also be used to simultaneously satisfy the three additional CEUs per year requirement in subsection (I)(3)(c).

e. An applicator shall complete CEU credit while the current certification period is in effect. CEU credits earned in excess of the requirements do not carry forward for use in subsequent renewals.

f. To obtain credit, the applicant shall provide the Department with documentation of completion of the CEU course.

g. The CEU requirements are not applicable to an individual renewing an initial certification issued between October 1 and December 31.

4. Examination exception. An applicator who fails to complete the CEUs required for renewal may renew a certification, prior to expiration, for one year by submitting the completed application accompanied by the applicable fee and retaking and passing the applicable certification examination prescribed in this Section.

J. Renewal; expired certification.

1. An applicant may renew an expired certification without retaking the written examinations provided the applicant:
   a. Has satisfied the CEU requirements,
   b. Submits a completed application and fee within 30 days after the expiration date, and
   c. Does not provide any pesticide-related service from the date the certification expired until the date the renewal is effective.
2. All other applicants for renewal shall complete the requirements for initial certification, including retaking and passing the written examinations prescribed in this Section.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-208 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by final rulemaking at 18 A.A.R. 2481, effective November 10, 2012 (Supp. 12-3). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-209. License and Fee Exemptions

A. A person who applies pesticides in buildings or for structural pest control purposes is not required to apply for or possess any license or certification from the Department.

B. A person who sells, offers for sale, delivers, or offers for delivery a general use pesticide, to be used for private, noncommercial use in or around the home or a person who sells general use pesticides for swimming pool or spa maintenance is not required to apply for or possess a seller's permit from the Department.

C. A state, federal, or other governmental employee who makes pest control recommendations or applies or supervises the use of restricted use pesticides while engaged in the performance of official duties shall meet the requirements of this Article, but is not required to pay a fee for either a PCA license or a commercial applicator certification.

D. A person who only furnishes information concerning label requirements governing a registered pesticide is not required to apply for or possess a PCA license from the Department.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-209 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-210. Additional Grounds for Revocation, Suspension, or Denial of a License, Permit, or Certification

A. The Director has the authority to deny, or after an administrative hearing, suspend or revoke a license, permit, or certification of any person who:

1. Fails to demonstrate sufficient reliability, expertise, integrity, and competence in engaging in pesticide use;
2. Submits an inaccurate application for a license, permit, or certification; or
3. Has had a similar license, permit, or certification revoked, suspended, or denied in this or any other jurisdiction during the three years before the date of application.

B. Upon notice of a denial, the applicant may request, in writing, that the Director provide an administrative hearing under A.R.S. Title 41, Chapter 6, Article 10 to appeal the denial of the license, permit, or certification.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-210 (Supp. 91-4). Former Section R3-3-210 repealed; new R3-3-210 renumbered from R3-3-211 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-211. CEU Course Approval; Subject Approval

A. CEU course approval.

1. A person who wishes to have the Department determine whether a course qualifies for CEU credit shall submit the following information to the Department:
   a. Name, address, e-mail address, if applicable, and telephone number of the course's sponsor;
   b. Signature of the sponsor or the sponsor's representative;
   c. Course outline, listing the subjects and indicating the amount of time allocated for each subject;
   d. Brief description of the information covered within each subject;
   e. Brief biography of the presenter, demonstrating the presenter's qualifications;
   f. Fees charged for attending the course;
   g. Date and location of each session; and
   h. Whether the course is open to the public.
2. A person who requires prior notification of the number of CEUs that can be earned by completing an approved course before it is held shall submit the information required in subsection (A)(1) to the Department at least 14 business days before the course is held.
3. The Department may modify the number of CEUs earned for a CEU course if the CEU course varies significantly in content or length from the approved curriculum. If the Department modifies the number of CEUs earned, the Department shall send a letter of modification to the course organizer, who shall be requested to inform all individuals who attended the course.

B. Subject approval. The Department shall grant one hour of CEU credit for every 50 minutes of actual instruction in an approved program relating to agricultural pest control or any of the following subjects:

1. Those listed in R3-3-208(F)(1),
2. IPM, or
3. Any other pesticide or pesticide use subject approved by the Associate Director.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-211 (Supp. 91-4). Former Section R3-3-211 renumbered to R3-3-210; new R3-3-211 renumbered from R3-3-212 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-212. Experimental Use Permit

A. Small scale pesticide testing. For a person exempted by Section 5 of FIFRA or 40 CFR 172.3 from the requirement of a federal experimental use permit the following apply:
1. The person shall, in addition to meeting the requirements in R3-3-303, provide to the Associate Director a statement of purpose and an affidavit verifying that the pesticide will be applied to an application site that does not exceed the total area described in 40 CFR 172.3(c); and
2. If testing on the grounds of a college or university agricultural center or campus, or company-owned research facility, the testing is exempt from subsection (A)(1) and the reporting requirements in R3-3-303.

B. A person engaged in a small scale test, except a person exempt under subsection (A)(2), shall comply with the requirements prescribed in R3-3-302, if applicable.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-212 (Supp. 91-4). Former Section R3-3-212 renumbered to R3-3-211; new R3-3-212 made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

APPENDIX A
TESTING CATEGORIES

A. Commercial Applicator Certification, 40 CFR 171.4(b)(i)-(viii).
1. Label & labeling comprehension.
   a. The general format and terminology of pesticide labels and labeling;
   b. The understanding of instructions, warnings, terms, symbols, and other information commonly appearing on pesticide labels;
   c. Classification of the product, general or restricted; and
   d. Necessity for use consistent with the label.
2. Safety. Factors including:
   a. Pesticide toxicity and hazard to man and common exposure routes;
   b. Common types and causes of pesticide accidents;
   c. Precautions necessary to guard against injury to applicators and other individuals in or near treated areas;
   d. Need for and use of protective clothing and equipment;
   e. Symptoms of pesticide poisoning;
   f. First aid and other procedures to be followed in case of a pesticide accident; and
   g. Proper identification, storage, transport, handling, mixing procedures and disposal methods for pesticides and used pesticide containers, including precautions to be taken to prevent children from having access to pesticides and pesticide containers.
3. Environment. The potential environmental consequences of the use and misuse of pesticides as may be influenced by such factors as:
   a. Weather and other climatic conditions;
   b. Types of terrain, soil or other substrate;
   c. Presence of fish, wildlife and other non-target organisms; and
   d. Drainage patterns.
4. Pests. Factors such as:
   a. Common features of pest organisms and characteristics of damage needed for pest recognition;
   b. Recognition of relevant pests; and
   c. Pest development and biology as it may be relevant to problem identification and control.
5. Pesticides. Factors such as:
   a. Types of pesticides;
   b. Types of formulations;
   c. Compatibility, synergism, persistence and animal and plant toxicity of the formulations;
   d. Hazards and residues associated with use;
   e. Factors which influence effectiveness or lead to such problems as resistance to pesticides; and
   f. Dilution procedures.
6. Equipment. Factors including:
   a. Types of equipment and advantages and limitations of each type; and
   b. Uses, maintenance and calibration.
7. Application techniques. Factors including:
   a. Methods of procedure used to apply various formulations of pesticides, solutions, and gases, together with a knowledge of which technique of application to use in a given situation;
   b. Relationship of discharge and placement of pesticides to proper use, unnecessary use, and misuse; and
   c. Prevention of drift and pesticide loss into the environment.
8. Laws and regulations. Applicable State and Federal laws and regulations.

B. Commercial Certification Categories, 40 CFR 171.4(c)(1) through (6) and (8) through (10).
1. Agricultural pest control.
   a. Plant. Applicators must demonstrate practical knowledge of crops grown and the specific pests of those crops on which they may be using restricted use pesticides. The importance of such competency is amplified by the extensive areas involved, the quantities of pesticides needed, and the ultimate use of many commodities as food and feed. Practical knowledge is required concerning soil and water problems, pre-harvest intervals, re-entry intervals, phytotoxicity, and potential for environmental contamination, non-target injury and community problems resulting from the use of restricted use pesticides in agricultural areas.
   b. Animal. Applicators applying pesticides directly to animals must demonstrate practical knowledge of such animals and their associated pests. A practical knowledge is also required concerning specific pesticide toxicity and residue potential, since host animals will frequently be used for food. Further, the applicator must know the relative hazards associated with such factors as formulation, application techniques, age of animals, stress and extent of treatment.
2. Forest pest control. Applicators shall demonstrate practical knowledge of types of forests, forest nurseries, and seed production in this state and the pests involved. They shall possess practical knowledge of the cyclic occurrence of certain pests and specific population dynamics as a basis for programming pesticide applications. A practi-

cal knowledge is required of the relative biotic agents and their vulnerability to the pesticides to be applied. Because forest stands may be large and frequently include natural aquatic habitats and harbor wildlife, the consequences of pesticide use may be difficult to assess. The applicator must therefore demonstrate practical knowledge of control methods which will minimize the possibility of secondary problems such as unintended effects on wildlife. Proper use of specialized equipment must be demonstrated, especially as it may relate to meteorological factors and adjacent land use.

3. Seed-treatment. Applicators shall demonstrate practical knowledge of types of seeds that require chemical protection against pests and factors such as seed coloration, carriers, and surface active agents which influence pesticide binding and may affect germination. They must demonstrate practical knowledge of hazards associated with handling, sorting and mixing, and misuse of treated seed such as introduction of treated seed into food and feed channels, as well as proper disposal of unused treated seeds.
4. Aquatic pest control. Applicators shall demonstrate practical knowledge of the secondary effects which can be caused by improper application rates, incorrect formulations, and faulty application of restricted use pesticides used in this category. They shall demonstrate practical knowledge of various water use situations and the potential of downstream effects. Further, they must have practical knowledge concerning potential pesticide effects on plants, fish, birds, beneficial insects and other organisms which may be present in aquatic environments. These applicators shall demonstrate practical knowledge of the principles of limited area application.
5. Right-of-way pest control. Applicators shall demonstrate practical knowledge of a wide variety of environments, since rights-of-way can traverse many different terrains, including waterways. They shall demonstrate practical knowledge of problems on runoff, drift, and excessive foliage destruction and ability to recognize target organisms. They shall also demonstrate practical knowledge of the nature of herbicides and the need for containment of these pesticides within the right-of-way area, and the impact of their application activities in the adjacent areas and communities.
6. Public health pest control. Applicators shall demonstrate practical knowledge of vector-disease transmission as it relates to and influences application programs. A wide variety of pests is involved, and it is essential that they be known and recognized, and appropriate life cycles and habitats be understood as a basis for control strategy. These applicators shall have practical knowledge of a great variety of environments ranging from streams to those conditions found in buildings. They shall also have practical knowledge of the importance and employment of such non-chemical control methods as sanitation, waste disposal, and drainage.
7. Regulatory pest control. Applicators shall demonstrate practical knowledge of regulated pests, applicable laws relating to quarantine and other regulation of pests, and the potential impact on the environment of restricted use pesticides used in suppression and eradication programs. They shall demonstrate knowledge of factors influencing introduction, spread, and population dynamics of relevant pests. Their knowledge shall extend beyond that required by their immediate duties, since their services are frequently required in other areas of the country where emergency measures are invoked to control regulated pests and where individual judgments must be made in new situations.
8. Demonstration and research pest control. Persons demonstrating the safe and effective use of pesticides to other applicators and the public will be expected to meet comprehensive standards reflecting a broad spectrum of pesticide uses. Many different pest problems situations will be encountered in the course of activities associated with demonstration, and practical knowledge of problems, pests, and population levels occurring in each demonstration situation is required. Further, they shall demonstrate an understanding of a pesticide-organism interaction and the importance of integrating pesticide use with other control methods. In general, it would be expected that applicators doing demonstration pest control work possess a practical knowledge of all of the standards detailed in (G)(1). In addition, they shall meet the specific standards required for subsections (c)(1) through (7) of this subsection as may be applicable to their particular activity.

C. Private Certification, 40 CFR 171.5(a)(1) through (5).

1. Recognize common pests to be controlled and damage caused by them.
2. Read and understand the label and labeling information, including the common name of pesticides the applicator applied; pest(s) to be controlled, timing and methods of application; safety precautions; any pre-harvest or re-entry restrictions; and any specific disposal procedures.
3. Apply pesticides in accordance with label instructions and warnings, including the ability to prepare the proper concentration of pesticide to be used under particular circumstances taking into account such factors as area to be covered, speed at which application equipment will be driven, and the quantity dispersed in a given period of operation.
4. Recognize local environmental situations that must be considered during application to avoid contamination.
5. Recognize poisoning symptoms and procedures to follow in case of a pesticide accident.

Historical Note

New Appendix made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Appendix A subsection (B) CFR citation corrected from 40 CFR.4 to 40 CFR 171.4 at the request of the Department, Office File No. M09-448, filed December 8, 2009 (Supp. 09-4).

ARTICLE 3. PESTICIDE USE, SALES, AND EQUIPMENT

R3-3-301. General

A. A person shall not use, apply, or instruct another to apply a pesticide in a manner or for a use inconsistent with the pesticide labeling except that:

1. A pesticide may be applied at a dosage, concentration, or frequency less than that specified on the pesticide labeling unless the labeling specifically prohibits deviation from the specified dosage, concentration, or frequency.
2. A pesticide may be applied against any target pest not specified on the labeling if the application is to an application site specified on the pesticide labeling, unless the labeling specifically prohibits use against the pest.
3. A pesticide may be applied by any method of application not prohibited by the pesticide labeling unless the labeling specifically states that the pesticide may be applied only by the methods specified on the labeling.
4. A pesticide may be mixed with a fertilizer if the labeling does not prohibit the mixture.

5. A pesticide may be used in any manner that is consistent with Sections 5, 18, or 24 of FIFRA.

B. A person shall not use, apply, or store or instruct another to use, apply, or store a pesticide unless the pesticide is:
1. Registered with the Department and the EPA, or
2. Previously registered with the Department and the EPA and cancelled or suspended by the EPA with a current end-use provision in effect.

C. Subsection (B) does not apply to a:
1. Pesticide registrant that temporarily stores pesticides produced for shipment out of the state;
2. Person who has applied for registration or exemption in this state; or
3. Person who is acting under an experimental use permit on the grounds of a college or university agricultural center or campus, or a company-owned research facility.

D. A person shall not allow drift that causes any unreasonable adverse effect.

E. A person shall not cause the direct release of a pesticide and an individual shall not instruct an applicator in a manner to cause the direct release of a pesticide causing any unreasonable adverse effect.

F. Regulated grower responsibility.
1. After a pesticide is applied to a field on an agricultural establishment, the regulated grower shall not harvest a crop from the field, or permit livestock to graze in the field in violation of any provision of the pesticide labeling.
2. Before a pesticide application, a regulated grower shall ensure that all individuals and livestock subject to the regulated grower's control are outside the application site.

G. Emergency pest control measures. A person acting under a government-sponsored emergency program, shall not apply, cause, or authorize another to apply or cause a pesticide to come into contact with an individual, animal, or property outside the boundaries of the application site.

H. If possible when applying pesticides by aircraft, a pilot shall fly crosswind, unless an obstacle does not permit it, and shall begin the application at the downwind side of the field so that the pesticide is dispersed on the return swathe.

I. A person shall not apply a highly toxic pesticide, other than a pesticide registered by the EPA for ultra low volume application, in a volume that is less than one gallon per acre in the final spray form. The content of that gallon shall be at least 50 percent water.

J. A buffer zone may receive direct application or drift of pesticides as permitted by law.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-301 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-302. Form 1080; Requirement for Written Recommendation

A. A PCA or regulated grower shall provide the following information, as applicable, in writing on a Form 1080, sign the form, and provide a copy to the custom applicator before each pesticide application that is to be made by a custom applicator:
1. Name and permit number of the seller;
2. Date the recommendation is written;
3. Name and permit number of the regulated grower upon whose application site the pesticide will be applied;
4. County where the application site is located;
5. Pest conditions present;
6. Whether the application site is within a pesticide management area under R3-3-304;
7. Anticipated date of harvest;
8. Restricted entry interval;
9. Label days to harvest;
10. Date recommended for the pesticide application;
11. Specific application site being treated;
12. Township, range, and section of the application site;
13. Number of acres or application sites in each section being treated;
14. Additional field description, if any;
15. Brand name and EPA registration number of the pesticide to be applied or number of the pesticide regulated under Section 18 of FIFRA to be applied;
16. Rate and unit of measure per acre or dilution per 100 gallons;
17. Total quantity of pesticide concentrate to be applied;
18. Total acres to be treated and total volume per acre or total number of application sites to be treated;
19. Whether the application includes an active ingredient that appears on the Arizona Department of Environmental Quality groundwater protection list and is soil-applied as defined in A.A.C. R18-6-101;
20. Whether a supplemental label is required;
21. Method of pesticide application;
22. Label restrictions or special instructions, if any;
23. Name of the custom applicator making the application;
24. Anticipated pesticide delivery location; and
25. Signature and credential number of the regulated grower or PCA making the recommendation.

B. A custom applicator shall not apply a pesticide unless the custom applicator has received a signed copy of the recommendation from the PCA or the regulated grower on the Form 1080 before the application. The custom applicator shall apply the pesticide according to the recommendation on the Form 1080 unless the recommendation conflicts with the pesticide label or labeling, in which case the custom applicator shall note these deviations on the Form 1080 and apply the pesticide according to the pesticide label or labeling, or as provided in R3-3-301(A).

C. Before the application of a pesticide recommended by a PCA, the PCA shall notify the regulated grower, or the regulated grower's representative, of the scheduled application date. If the application date or time changes from that scheduled with the regulated grower, the custom applicator shall notify the regulated grower of the revised date and time of the application.

D. After completing the application, the custom applicator shall sign the pesticide application report portion of Form 1080 to verify that the pesticide was applied according to the recommendation and provide the following information in writing on the form:
1. Date and time of each application;
2. Date and time of the first and last spot application and a general description of the location, if applicable;
3. Wind direction and velocity;
4. Tag number, if applicable;
5. Name and credential number of the grower or custom applicator business;
6. Signature and credential number of the applicator; or name of the application equipment operator, and if a restricted use pesticide is applied, the signature and credential number of the certified applicator; and
7. Any deviation from the recommendation.

E. Reporting shall be as prescribed in R3-3-404.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-302 (Supp. 91-4). Section repealed; new Section made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-303. Experimental Use

A. A person supervising application of a pesticide under a federal experimental use permit shall provide the Department with the following information in writing at least five days before application of the experimental use pesticide:
1. A copy of the EPA-approved experimental use permit, as required by Section 5 of FIFRA;
2. Name, address, e-mail address, if applicable, and daytime telephone number of the supervising technical individual for the experimental use;
3. Application site to be treated, the location of the application site, the quantity of the commodity or the area of land to be treated, and the number of structures, if any;
4. Total amount of active ingredient to be applied in this state;
5. Rate of formulation applied per unit of measure;
6. Method of application;
7. Time period during which the application will be made; and
8. Any special experimental use permit condition as determined by the Department or by the EPA.

B. If any information provided under subsection (A) changes, the person supervising the pesticide application under a federal experimental use permit shall notify the Department at least 24 hours before the application of the experimental use pesticide. If the notification of change is given verbally, the person supervising the pesticide application under a federal experimental use permit shall provide the Department with written confirmation within 15 days after the date of the change.

C. At least 24 hours before the application, the supervising technical individual shall provide the Department with the following information:
1. Name, address, e-mail address, if applicable, and daytime telephone number of the regulated grower and PCA, or the qualifying party if it is a structural pest control application, that are involved in the application of the experimental use pesticide;
2. County, section, township, range, and field description, if needed, of the intended application site, or the street address if it is a structural pest control application as defined in A.R.S. § 32-2301(20);
3. Name, address, e-mail address, if applicable, and telephone number of the applicator applying the pesticide; and
4. Date and time of the intended application.

D. An applicator shall not apply an experimental use pesticide in a manner other than that specified by the experimental use permit or other Department-approved labeling that is provided to the applicator. The applicator shall ensure that the labeling is at the application site when the application occurs.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-303 (Supp. 91-4). Section repealed; new Section renumbered from R3-3-306 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-304. Pesticide Management Areas; Criteria for Designation

A. The Associate Director shall annually publish a list of all locations within the state that are designated as pesticide management areas under A.R.S. § 3-366. The list is available at every Environmental Services Division office.

B. The Director shall designate a location as a pesticide management area if all of the following evaluation criteria are met:
1. The distance between the application site and the property boundary of any residence, school, child care facility, or health care institution is less than 1/4 mile;
2. A pesticide is applied by aircraft;
3. A pesticide complained about under subsection (B)(4) is highly toxic or odoriferous; and
4. The Department receives complaints alleging pesticide misuse within a 12-month period from at least five or five percent, whichever is greater, of the residences located less than 1/4 mile from the application site or a complaint from any school, child care facility, or health care institution located less than 1/4 mile from the application site.

C. If, upon a written request from a person, or upon the Department's initiative, the Director determines that a pesticide management area no longer meets all of the criteria listed in subsection (B), the Director may remove the pesticide management area from the Department's annual list.

D. A person may petition the Department at any time to add or delete an area to or from the list of pesticide management areas. The petitioner shall address all of the criteria listed in subsection (B). The Director shall make a decision on each petition no later than 90 days from the date the petition was submitted.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-304 (Supp. 91-4). Section repealed; new Section renumbered from R3-3-308 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-305. Pesticide Sales

A. A seller shall not sell, offer for sale, deliver, or offer for delivery any restricted use pesticide or pesticide for an agricultural purpose without determining that the pesticide will be used by a person who:
1. Has a valid certification or regulated grower permit issued by the Department or OPM for use of the pesticide, or
2. Works under the direct supervision of a person who has a valid certification or regulated grower permit issued by the Department or OPM for the use of the pesticide.

B. If a pesticide is sold for an agricultural purpose, the seller shall write the permit numbers of the seller and regulated grower on each sale and delivery ticket or invoice, and on each pesticide container or carton. If a pallet is delivered to an individual purchaser, the seller may write the seller and regulated grower numbers on the outside of the shrink-wrapped pallet.

C. A seller shall register with the Department the name and address of each salesperson and PCA employed for the purpose of selling pesticides in this state.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-305 (Supp. 91-4). Section repealed; new Section renumbered from R3-3-309 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-306. Receipt of Restricted Use Pesticides by Noncertified Persons

A. A person shall not sell, offer for sale, deliver, or offer for delivery a restricted use pesticide to a person other than a certified applicator without having first obtained written documentation from a certified applicator or a noncertified recipient that the material is to be applied by or under the supervision of a certified applicator.

B. The seller shall obtain one of the following types of written documentation to satisfy the requirement in subsection (A):
1. A photocopy or fax of the certificate issued to the certified applicator who will be applying or supervising application of the restricted use pesticide and:
   a. A statement signed by the certified applicator, authorizing and identifying the noncertified individual to purchase or receive the restricted use pesticide for the certified applicator; or
   b. A copy of a signed contract or agreement, authorizing and identifying the noncertified person to receive the restricted use pesticide for the certified applicator; or
2. A form on file with the seller that contains the following information:
   a. Name of any individual authorized to receive the restricted use pesticides for the certified applicator;
   b. Relationship of an authorized individual to the certified applicator (partner, employee, co-worker, or family member);
   c. List of the restricted use pesticides an authorized individual is allowed to receive, specifying the:
      i. Trade name; and
      ii. EPA registration number; or
      iii. State special local need registration number issued by the Department; or
      iv. Emergency exemption number, issued by the EPA under Section 18 of FIFRA, if applicable;
   d. Signature of the authorized individual and the date signed; and
   e. Certified applicator's signature, work address, work phone number, certification number, and certification categories (private fumigation or commercial and one or more of the following: agricultural pest, seed-treatment, right-of-way, forestry, aquatic, regulatory, or public health).

C. A seller shall request proof of identification from any noncertified individual accepting restricted use pesticides on behalf of a certified applicator if the individual is unknown to the seller.

D. A noncertified individual who receives a restricted use pesticide on behalf of a certified applicator shall sign all sale documents for restricted use pesticides.

E. If, at the time of the sale of the restricted use pesticide, the noncertified individual receiving the pesticide satisfies the requirements of subsection (B) by presenting a signed statement, contract, or agreement, the seller shall maintain on file a copy of the signed statement, contract, or agreement.

F. The seller shall retain records of all sales or deliveries made and maintain the documents required by this Section for at least two years from the date of sale.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-306 (Supp. 91-4). Former Section R3-3-306 renumbered to R3-3-303; new R3-3-306 renumbered from R3-3-310 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-307. Aircraft and Agricultural Aircraft Pilots

A. A person shall not operate an aircraft to apply pesticides in this state unless the aircraft has a valid Federal Aviation Administration airworthiness certificate and a valid tag issued under R3-3-206.

B. A custom applicator shall not permit an individual who does not hold a valid agricultural aircraft pilot license and a valid commercial applicator certification to apply pesticides by aircraft.

Historical Note

Adopted effective January 17, 1989 (Supp. 89-1). Renumbered from R3-10-307 (Supp. 91-4). Former Section R3-3-307 repealed; new R3-3-307 renumbered from R3-3-312 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-308. Pesticide Containers and Pesticides; Storage and Disposal

A. Each person storing pesticides or non-triple rinsed pesticide containers shall:
1. Provide a secure, well-ventilated storage location;
2. Verify that the containers are nonleaking and closed if not in use; and
3. Conspicuously post a sign at the entrance to the storage area warning others that pesticides are stored inside.

B. A person shall not place misleading wording or markings on a service container that are not related to the pesticide in the container.

C. A person using a service container to store or transport a pesticide concentrate or registered ready-to-use pesticide, shall place a durable and legible label or tag on the service container that lists:
1. Name, e-mail address, if applicable, and telephone number of the applicator or custom applicator using the pesticide;
2. Brand or trade name of the pesticide;
3. EPA registration number;
4. Name and percentage of the active ingredient;
5. Dilution, if any, in the service container;
6. EPA-assigned signal word (danger, warning, or caution) for the registered label; and
7. The phrase "KEEP OUT OF REACH OF CHILDREN."

D. A person shall not store or transport any pesticide in a container that has been used for food, feed, beverages, drugs, or cosmetics, or, because of shape, size, or marking is identified with food, feed, beverages, drugs, or cosmetics.

E. A person shall not dump, negligently store, or leave unattended any pesticide, service container, or pesticide container or part of a container, at any place or under any condition that will create a hazard to an individual, an animal, or property.

F. A person shall not dispose of any pesticide or pesticide container except according to label directions and all applicable laws.

G. Before a person disposes of any pesticide container, the person shall ensure that the following steps are taken:
1. After emptying each pesticide container other than a pressurized container, a paper bag, or a container designed for reuse with the same pesticide and described in R3-3-309, the container is triple rinsed and:
   a. The rinsate is not discharged into the environment unless the discharge is performed according to label directions, and applicable laws;
   b. The rinsate is placed into a service container or the application equipment for use on an application site, or the rinsate is disposed as allowed by the label;

c. Each container is punctured or crushed after it is triple rinsed to render the container incapable of holding any material; and

2. A pesticide container that is a combustible bag or package is thoroughly emptied and either:
   a. Folded and tied into bundles or otherwise secured, or
   b. Enclosed securely in a secondary container that is labeled as containing pesticide residue.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-308 (Supp. 91-4). Former Section R3-3-308 renumbered to R3-3-304; new R3-3-308 renumbered from R3-3-313 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-309. Returnable, Reusable, Recyclable, and Reconditionable Pesticide Containers

A. A pesticide container, as defined in R3-3-101, labeled as a returnable, reusable container, or for which the label contains provisions for recycling or reconditioning, may be shipped according to label directions to a dealer, distributor, formulator, or a reconditioning or recycling facility that is operated in accordance with applicable laws.

B. If a pesticide container is being held for shipment under subsection (A), the person holding the container shall, immediately after use, place it in a secure environment, inaccessible for any use other than shipment according to label directions.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-309 (Supp. 91-4). Former Section R3-3-309 renumbered to R3-3-305; new R3-3-309 renumbered from R3-3-314 and amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-310. Fumigation Use

A. An individual shall not perform a fumigation unless the individual is a certified fumigant applicator or a certified fumigant applicator is physically present in the immediate vicinity supervising the individual performing the fumigation.

B. An individual storing, handling, or applying a fumigant shall follow all label requirements. If the label does not specify warning requirements, the individual shall comply with the following provisions:
1. Before the fumigation begins, warning signs shall be posted in visible locations on or in the immediate vicinity of all entrances to and on every side of the space or area being fumigated.
2. Warning signs shall be printed in red on white background and shall:
   a. State the English and Spanish words "DANGER/PELIGRO";
   b. Contain a skull and crossbones symbol if shown on the product label;
   c. State "Area or commodity under fumigation. DO NOT ENTER/NO ENTRE"; and
   d. State the name of the fumigant, the date and time the fumigant was injected, and the name, e-mail address, if applicable, and telephone number of the certified applicator.

C. A certified fumigant applicator who engages in or who supervises another in the fumigation process shall ensure that the label requirements are followed, including requirements relating to the use of personal protective equipment and posting required warning signs.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-310 (Supp. 91-4). Former Section R3-3-310 renumbered to R3-3-306; new R3-3-310 made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-311. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-311 (Supp. 91-4). Section repealed by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-312. Renumbered

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-312 (Supp. 91-4). Section renumbered to R3-3-307 by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-313. Renumbered

Historical Note
Adopted effective January 17, 1989 (Supp. 89-1). Renumbered from R3-10-313 (Supp. 91-4). Section renumbered to R3-3-308 by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-314. Renumbered

Historical Note
Adopted effective January 17, 1989 (Supp. 89-1). Renumbered from R3-10-314 (Supp. 91-4). Section renumbered to R3-3-309 by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

ARTICLE 4. RECORDKEEPING AND REPORTING

R3-3-401. Pesticide Seller Records

A. A seller of any restricted use pesticide, device, or any pesticide sold for an agricultural purpose shall maintain all records showing the receipt, sale, delivery, or other disposition of the pesticide or device sold for at least two years from the date of sale. If a seller intends to change the location of the records, the seller shall file a signed statement with the Department before the move stating the new address.

B. When any pesticide for agricultural purposes, or a restricted use pesticide regulated by the OPM, is sold, delivered, or otherwise disposed of, a seller shall maintain the following records and information:
1. Bill of lading or other similar record of the receipt of the pesticide at the selling establishment;
2. Seller's dated sales receipt, delivery receipt, or invoice of the transaction, delivery, or other disposition of the pesticide;
3. Name and address of the purchaser;
4. Regulated grower permit number, or the OPM license number of the purchaser, if applicable;
5. State special local need registration number issued under Section 24 of FIFRA, if applicable;
6. Emergency exemption permit number granted by the EPA under Section 18 of FIFRA, if applicable;
7. Experimental use permit number, if applicable;
8. Pesticide brand name and the EPA registration number; and
9. Quantity of the pesticide sold to the purchaser.

C. In addition to the information required in subsection (B), when a restricted use pesticide is sold, delivered, or otherwise disposed of for use by a certified applicator, a seller shall maintain records that contain the following information:
1. Name and address of the residence or principal place of business of each person to whom the restricted use pesticide is sold, delivered, or otherwise disposed of, and any records required under R3-3-306;
2. Certified applicator's name, address, certification number, and the expiration date of the applicator's certification; and
3. Categories in which the applicator is certified, if applicable.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-401 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-402. Private and Golf Applicator Records; Restricted Use Pesticide

A. Following an application to a field on an agricultural establishment of a restricted use pesticide, a pesticide registered under Section 18 of FIFRA, or an experimental use permitted pesticide, a private applicator shall complete an application record on a form approved by the Department, that includes the following:
1. Name of the private applicator and the applicator's certification number;
2. Name and permit number of the seller;
3. Name of the pesticide applied and its EPA registration number;
4. Date and time of application;
5. Name of regulated grower;
6. Method of application;
7. Crop name and the number of acres treated with the pesticide;
8. Rate per acre of the active ingredient or formulation of the pesticide;
9. Total volume of pesticide used per acre; and
10. County, range, township, and section of the field that received the application.

B. Following an application to a non-field of a restricted use pesticide, a pesticide registered under Section 18 of FIFRA, or an experimental use permitted pesticide, a private applicator or golf applicator shall complete an application record on a form approved by the Department, that includes the following:
1. The information requested under subsection (A)(1) through (A)(6);
2. Item treated;
3. Rate per item treated;
4. Total volume used in the application; and
5. Application site location by county, range, township, and section, or by physical address.

C. A private applicator and golf applicator shall retain records required by this Section for at least two years from the date of the private application.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-402 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-403. Bulk Release Report

A. An applicator shall notify the Department at the Pesticide Hotline, 1-800-423-8876, as soon as practical after a bulk release, but no later than three hours after the bulk release. If the bulk release is on a public highway or railway, or results in the death of an individual, the applicator shall immediately report the release to the Arizona Department of Public Safety Duty Office.

B. Within 30 days after a bulk release, the applicator shall provide a written report to the Department listing all details of the release, including:
1. Location and cause of the release;
2. Disposition of the pesticide released;
3. Measures taken to contain the bulk release;
4. Name and EPA registration number of the pesticide released;
5. Name, e-mail address, if applicable, and telephone number of the applicator's contact person;
6. Date and time of the release;
7. Specific environment into which the release occurred;
8. Known human exposure to the pesticide, if observed; and
9. Estimated amount of pesticide or pesticide mixture released.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-403 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-404. Form 1080; Reports to the Department

A. A custom applicator shall submit to the Department, by mail or fax, a completed and signed Form 1080, as prescribed in R3-3-302.

B. A regulated grower shall submit to the Department, by mail or fax, a completed and signed Form 1080, as prescribed in R3-3-302, for application of a pesticide containing an active ingredient that appears on the Arizona Department of Environmental Quality groundwater protection list, and is soil-applied, as defined in A.A.C. R18-6-101.

C. A custom applicator or regulated grower may report continued pesticide applications and spot applications within the same reporting period on a single Form 1080.

D. A custom applicator or a regulated grower shall submit the Form 1080 to the Department during the reporting period.

E. A PCA or custom applicator shall retain a copy of each Form 1080 for at least two years from the date of the application.

Historical Note
Adopted effective January 17, 1989 (Supp. 89-1). Renumbered from R3-10-404 (Supp. 91-4). Section repealed; new Section made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-405. Disposal Records; Agricultural Pesticide Concentrate

An applicator shall maintain the following information for two years:
1. EPA registration number, product name, active ingredient, and amount of agricultural pesticide concentrate disposed of;
2. Date of disposal;
3. Method of disposal; and
4. Specific location of the disposal site, or name of licensed disposal contractor.

Historical Note
New Section made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

ARTICLE 5. NONEXCLUSIVE LISTS OF SERIOUS, NONSERIOUS, AND DE MINIMIS VIOLATIONS

R3-3-501. Serious Violations

The following is a nonexclusive list of acts that are serious violations if exposure to the pesticide produces a substantial probability that death or serious physical harm could result, unless the violator did not, and could not with the exercise of reasonable diligence, as documented in the investigative record, know of such safety or human health risk, in which case the violation is nonserious:

1. Storing a pesticide or pesticide container improperly,
2. Dumping or disposing a pesticide or pesticide container in violation of this Chapter,
3. Leaving a pesticide or pesticide container unattended,
4. Spraying or applying a pesticide in a manner inconsistent with labeling instructions, or
5. Adulterating a pesticide.

Historical Note

Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-501 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-502. Nonserious Violations

A. General violations. The following is a nonexclusive list of acts that are nonserious violations if the violation has a direct or immediate relationship to safety, health, or property damage, but does not constitute a de minimis violation or a serious violation, unless the violator did not, and could not with the exercise of reasonable diligence, know of such safety, health, or property damage risk in which case the violation is de minimis. A person shall not:

1. Improperly store, dump, or leave unattended any pesticide, pesticide container or part of a pesticide container, or service container.
2. Make a false statement or misrepresentation in an application for a permit, license, or certification, or a permit, license, or certification renewal.
3. Falsify any records or reports required to be made under Articles 2 through 4 of this Chapter.
4. Operate an aircraft or ground equipment in a faulty, careless, or negligent manner during the application of a pesticide.
5. Apply or instruct another to apply a pesticide so that it comes into contact with:
   a. An individual;
   b. An animal; or
   c. Property, other than the application site being treated.
6. Use, apply, or instruct another to apply a pesticide in a manner or for a use inconsistent with its pesticide label or labeling except as provided by R3-3-301(A).
7. Use, sell, apply, store, or instruct another to use, sell, apply, or store a pesticide:
   a. That is not registered with the Department and the EPA, or
   b. Outside the EPA authorized end-use provision if previously registered with the Department and the EPA and cancelled or suspended by the EPA.
8. Fail to provide accurate or approved labeling when registering a pesticide.

B. Seller violations. A seller shall not:

1. Sell pesticides without a valid seller's permit issued by the Department,
2. Provide a pesticide to a regulated grower who does not have a valid permit,
3. Fail to maintain records required under Articles 2 through 4 of this Chapter,
4. Fail to maintain complete sales records of restricted use pesticides required under Articles 3 and 4 of this Chapter,
5. Adulterate a pesticide,
6. Make false or misleading claims about a pesticide to any person,
7. Modify a label or labeling without proper authorization, or
8. Provide a pesticide to an unauthorized person.

C. PCA violations. A PCA shall not:

1. Act as a PCA without a valid agricultural pest control advisor license issued by the Department,
2. Make a false or fraudulent statement in any written recommendation about the use of a pesticide,
3. Make a recommendation regarding the use of a pesticide in a specific category in which the individual is not licensed, or
4. Make a written recommendation for the use of a pesticide in a manner inconsistent with its pesticide label or the exceptions as provided in R3-3-301(A).

D. Agricultural aircraft pilot violations. A pilot shall not apply a pesticide by aircraft without a valid agricultural aircraft pilot license issued by the Department.

E. Custom applicator violations. A custom applicator shall not:

1. Allow application equipment to be operated in a careless or reckless manner during the application of a pesticide,
2. Make a custom application without a valid custom applicator's license issued by the Department,
3. Make a custom application of a restricted use pesticide without a valid commercial applicator certification issued by the Department,
4. Allow an aircraft to be operated during the application of a pesticide by an individual who does not have a valid agricultural aircraft pilot license issued by the Department, or
5. Apply a pesticide without a written Form 1080 as prescribed in R3-3-302(A).

F. Regulated grower violations. A regulated grower shall not:

1. Purchase, apply, or use a pesticide without a valid regulated grower's permit issued by the Department;
2. Apply a restricted use pesticide without being a commercial applicator, private applicator, or restricted use pesticide certified golf applicator;
3. Apply any pesticide on a golf course without being a golf applicator; or
4. Allow a pesticide application on a golf course without having the proper protective equipment required by the label available to the applicator.

G. Certified applicator violations. A certified applicator shall not:

1. Allow the unsupervised application of a restricted use pesticide,
2. Fail to maintain complete records required under Articles 2 through 4 of this Chapter, or
3. Use a restricted use pesticide without a valid commercial applicator, private applicator, or golf applicator restricted use pesticide certification issued by the Department.

H. Exemptions. The following incidents are not pesticide use violations under this Section:

1. Exposure of an individual involved in the application who is wearing proper protective clothing and equipment;
2. Exposure of an unknown trespassing individual, animal, or property that the applicator, working in a prudent manner, could not anticipate being at the application site; or

3. Exposure of a person, animal, or property if the application is made according to a government-sponsored emergency program.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-502 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1). Amended by exempt rulemaking at 19 A.A.R. 3130, effective September 16, 2013 (Supp. 13-3).

R3-3-503. De minimis Violations

A. Seller violations. It is a de minimis violation if a seller:
1. Fails to record seller and regulated grower permit numbers on containers, cartons, and delivery tickets;
2. Fails to register the seller's representatives; or
3. Fails to maintain complete records as required under Articles 2 through 4 of this Chapter.

B. PCA violations. It is a de minimis violation if a PCA:
1. Fails to put recommendations in writing as prescribed at R3-3-302(A),
2. Fails to provide complete information required on written recommendations under R3-3-302, or
3. Fails to maintain complete records as required under Articles 2 through 4 of this Chapter.

C. Custom applicator violations. It is a de minimis violation if a custom applicator:
1. Fails to maintain complete records required under Articles 2 through 4 of this Chapter, or
2. Fails to file reports as required under Articles 3 and 4 of this Chapter.

D. Regulated grower violations. It is a de minimis violation if a regulated grower:
1. Fails to maintain complete records as required under Articles 2 through 4 of this Chapter; or
2. Fails to file reports as required under Article 4 of this Chapter including whether the application includes a pesticide containing an active ingredient that appears on the Arizona Department of Environmental Quality groundwater protection list, and is soil-applied, as defined in A.A.C. R18-6-101.

E. Certified applicator violations. A certified applicator shall not fail to file reports as required under Articles 3 and 4 of this Chapter.

F. A third de minimis violation of the same or similar type from among those listed in subsections (A) through (E) in a three-year period is a nonserious violation.

G. Exemptions. The following incidents are not a violation under this Section:
1. Exposure of an individual involved in the application who is wearing proper protective clothing and equipment;
2. Exposure of an unknown trespassing individual, animal, or property that the applicator, working in a prudent manner, could not anticipate being at the application site; or
3. Exposure of a person, animal, or property if the application is made according to a government-sponsored emergency program.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-503 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-504. Mitigation

A. A violation listed in R3-3-501 is a nonserious violation if:
1. The violator did not, and could not with the exercise of reasonable diligence, know of the safety or human health risk involved; or
2. The release is done to avoid an accident that would have resulted in greater harm than that caused by the pesticide release or is caused by mechanical malfunction beyond the control of the operator.

B. A violation listed in R3-3-502 is a de minimis violation if:
1. The violator did not, and could not with the exercise of reasonable diligence, know of the safety, health, or property damage risk involved; or
2. The release is done to avoid an accident that would have resulted in greater harm than that caused by the pesticide release or is caused by mechanical malfunction beyond the control of the operator.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-504 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-505. Unlisted Violations

A. The Department shall classify a violation of Articles 2 through 4 of this Chapter or of A.R.S. Title 3, Chapter 2, Article 6 that is not listed in R3-3-501, R3-3-502, or R3-3-503 as a serious, nonserious, or de minimis violation depending upon the specific factual circumstances surrounding the violation.

B. A third de minimis violation of the same or similar type in a three-year period is a nonserious violation.

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-505 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-506. Penalty and Fine Point System

A. The ALJ shall assess points, as applicable, against a violator for the violation of each pesticide rule or statute, or the Associate Director shall assess points, as applicable, for the violation of each pesticide rule or statute upon entering into a negotiated settlement as a result of an informal settlement conference under A.R.S. § 41-1092.06, in accordance with the following point system. From each of subsections (A)(1) through (6), one choice shall be selected, unless otherwise appropriate, based upon supporting evidence in the record of the proceeding before the ALJ or Associate Director. Points shall be totaled for the violation of each pesticide rule or statute.

1. Health effects.
   a. No evidence of human exposure to pesticides and no evidence of the substantial probability of human exposure to pesticides. 0
   b. Substantial probability of human exposure to pesticides but treatment not required by a physician, nurse, paramedic, or physician's assistant. 5-10
   c. Evidence of human exposure to pesticides but treatment not required by a physician, nurse, paramedic, or physician's assistant. 11-20
   d. Human exposure to pesticides that required treatment by a physician, nurse, paramedic, or physician's assistant, but which did not result in pesticide poisoning. 21-30
   e. Human exposure to pesticides that required either hospitalization for less than 12 hours or treatment as an outpatient for five consecutive days or less by a physician, nurse, paramedic, or physician's assistant for pesticide poisoning. 31-45
   f. Human exposure to pesticides that required either hospitalization for 12 hours or longer, or treatment as an outpatient for more than five consecutive days by a physician, nurse, paramedic, or physician's assistant for pesticide poisoning. 46-100
   g. Human exposure to pesticides resulting in death from pesticide poisoning (serious violation unless otherwise documented in the investigative record). 101-180
2. Environmental consequences and property damage. (Select one or more as evidence indicates.)
   a. No evidence of substantial probability of environmental or property damage. 0
   b. Substantial probability of water contamination. 5-10
   c. Evidence of water source contamination. 11-20
   d. Substantial probability of soil contamination causing economic damage. 5-10
   e. Evidence of soil contamination causing economic damage. 11-20
   f. Substantial probability of nontarget bird kills. 5-10
   g. Evidence of nontarget bird kills. 11-20
   h. Substantial probability of nontarget fish kills. 5-10
   i. Evidence of nontarget fish kills. 11-20
   j. Nontarget kills involving game or furbearing animals as defined by A.R.S. § 17-101(B). 10-20
   k. Any property damage (nonserious violation only under A.R.S. § 3-361(4)). 10-20
   l. Air contamination causing official evacuation by federal, state, or local authorities. 10-20
   m. Killing one or more threatened or endangered species. 15-20
   n. Killing one or more domestic animals. 15-20
3. Culpability.
   a. Knowing.Knew or reasonably should have known by reasonable diligence of the prohibitions or restrictions that are the basis of the misconduct cited. 5-10
   b. Willfully. Actual knowledge of the prohibitions or restrictions but engages in misconduct. 20-50
4. Prior violations or citations. Violations or citations within three years from the date the violation was committed. (Select one or more as evidence indicates.)

Prior violation history	Current violation Non-serious	Current violation Serious
None	0	0
One or more De minimis	5	0
One Nonserious	10	5
One Nonserious, same or substantially similar to current violation	20	10
Two Nonserious	30	15
Two Nonserious, same or substantially similar to current violation	40	20
Three Nonserious	60	30
Three Nonserious, same or substantially similar to current violation	70	35
Additional Nonserious: same or substantially similar to current violation, points per each additional violation beyond three	10	5
One Serious	20	10
One Serious, same or substantially similar to current violation	40	20
Two Serious	60	30
Two Serious, same or substantially similar to current violation	80	40
Three Serious	120	60
Three Serious, same or substantially similar to current violation	140	70
Additional Serious: same or substantially similar to current violation, points per violation	20	10

5. The length of time a violation has been allowed to continue by the violator after notification by the Department.
   a. Less than one day. 0
   b. One day but less than one week. 1-10
   c. One week but less than one month. 11-20
   d. One month but less than two months. 21-30
   e. Two months or more. 31-40

6. Wrongfulness of conduct.
   a. Conduct resulting in a violation that does not cause any immediate damage to public health, safety, or property. 4-5
   b. Conduct resulting in a violation that the evidence establishes may have a substantial probability of an immediate effect upon public health, safety, or property. 6-8
   c. Conduct resulting in a violation that the evidence establishes had an immediate effect upon public health, safety, or property, but does not fall within subsection (6)(e). 9-10
   d. Conduct causing the substantial probability of serious physical injury, hospitalization, or sustained medical treatment for an individual, or degrading the pre-existing environmental quality of the air, water, or soil so as to cause a substantial probability of a threat to the public health, safety, or property. 20-35
   e. Conduct resulting in serious physical injury, hospitalization, or sustained medical treatment for an individual, or degrading the pre-existing environmental quality of the air, water, or soil so as to cause a substantial probability of a threat to the public health, safety, or property. 36-50

B. The ALJ or Associate Director, after determining points pursuant to subsection (A) shall assess a fine or penalty, or fine and penalty, for each violation in accordance with the following schedules:
1. Nonserious violation as defined under A.R.S. § 3-361.
   a. 53 points or less. A fine of $50 to $150; a penalty of one to three months' probation, with a condition of violating probation being one to three hours of continuing education.
   b. 54 to 107 points. A fine of $151 to $300; a penalty of four to six months' probation with a condition of violating probation being one to 10 days' suspension.
   c. 108 points or more. A fine of $301 to $500; a penalty of seven to 12 months' probation with a condition of violating probation being 15 to 30 days' suspension or revocation for a period of up to one year.
2. Serious violation as defined under A.R.S. § 3-361.
   a. 46 points or less. A fine of $1,000 to $2,000; a penalty of one to three months' probation with a condition of violating probation being five to 10 days' suspension for a nonserious violation or 15 to 30 days' suspension for a serious violation.
   b. 47 to 93 points. A fine of $2,001 to $5,000; a penalty of four to six months' probation with a condition of violating probation being 15 to 30 days' suspension for a nonserious violation and 31 to 90 days' suspension for a serious violation.
   c. 94 points or more. A fine of $5,001 to $10,000; a penalty of probation for seven to 12 months with a condition of violating probation being two to four months' suspension for a nonserious violation and four to 12 months' suspension for a serious violation, or revocation for the remainder of the license year and an additional period of one to three years.
3. The first de minimis violation is not considered a violation of probation.

Historical Note
Adopted effective September 13, 1989 (Supp. 89-3). Renumbered from R3-10-506 (Supp. 91-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

ARTICLE 6. REPEALED

R3-3-601. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-601 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-602. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-602 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-603. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-603 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-604. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-604 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-605. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-605 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-606. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-606 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-607. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-607 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-608. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-608 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-609. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-609 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-610. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-610 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-611. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-611 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-612. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-612 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-613. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-613 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-614. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-614 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-615. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-615 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-616. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-616 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-617. Repealed

Historical Note
Adopted effective November 20, 1987 (Supp. 87-4). Renumbered from R3-10-617 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

ARTICLE 7. PESTICIDE

R3-3-701. Definitions

In addition to the definitions in A.R.S. § 3-341, the following terms apply to this Article:

1. "Discontinuation" means when the registrant is no longer distributing a pesticide into Arizona.
2. "Pest" means, in addition to the pests declared in A.R.S. § 3-341(20), all birds, mammals, reptiles, amphibians, fish, slugs, snails, crayfish, roots, and plant parts.
3. "Official sample" means any sample of pesticide taken by the Associate Director, or the Associate Director's agent, and designated as official.

Historical Note
Former rule 1; Former Section R3-3-01 repealed, new Section R3-3-01 adopted effective January 18, 1978 (Supp. 78-1). Amended effective December 29, 1978 (Supp. 78-6). Section R3-3-701 renumbered from R3-3-01 (Supp. 91-4). Section repealed; new Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-702. Pesticide Registration; Fee

A. Registration. Any person registering a pesticide shall provide the following documents and information on a form provided by the Department with a nonrefundable $100 fee for each pesticide, for each year of the registration:

1. The name, address, telephone number, and signature of the applicant;
2. The name and address of the company appearing on the label;
3. The Social Security number or tax identification number;
4. The date of the application;
5. The brand and name of the pesticide being registered;
6. The EPA registration number of the pesticide if applicable;
7. The analytical methods for any analyses of residues for the active ingredients of the pesticide, if requested by the Department;
8. The toxicological and safety data, if requested by the Department;
9. The name and telephone number of the person providing the toxicological and safety data;
10. Two pesticide labels for any pesticide not previously registered;
11. The material safety data sheet for each pesticide; and
12. The license time-period option.

B. A pesticide registration is nontransferable, expires on December 31, and shall, at the option of the applicant, be valid for one or two years.

C. If an applicant elects a two-year pesticide registration, any additional pesticide registered during that two-year registration shall have the same registration end-date as any other pesticide currently registered by that applicant with the Department.

D. Notwithstanding subsection (A), during fiscal year 2011 and fiscal year 2012, a person registering a pesticide or renewing a pesticide registration shall pay a $110 fee for each pesticide for each year of registration.

Historical Note
Former rule II; Former Section R3-3-02 renumbered and amended as Section R3-3-01, former Sections R3-3-11 and R3-3-12 renumbered and amended as Section R3-3-02 effective January 18, 1978 (Supp. 78-1). Amended subsection (C) effective January 1, 1979, subsection (D) effective January 1, 1982 (Supp. 78-6). Editorial corrections, subsection (B), paragraphs (6) through (9) (Supp. 79-6). Amended by deleting subsection (D) effective March 5, 1982 (Supp. 82-2). Section R3-3-702 renumbered from R3-3-02 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2). New Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4). Amended by exempt rulemaking at 16 A.A.R. 1334, effective June 29, 2010 (Supp. 10-2). Amended by exempt rulemaking at 17 A.A.R. 1759, effective July 20, 2011 (Supp. 11-3).

R3-3-703. General Provisions

A. Discontinued pesticides. In addition to the requirements for discontinued pesticides established in A.R.S. § 3-351(K), any person holding a pesticide found in the channels of trade following the three-year discontinuation period shall be responsible to register or dispose of the pesticide.

B. Sampling.

1. The Associate Director, or the Associate Director's agent, may sample, inspect, and analyze any pesticide distributed within the state to determine whether the pesticide is in compliance with the provisions of this Article and laws pertaining to this Article, or if a complaint has been filed with the Department.

2. The analytical results of pesticide formulations as listed on a label shall comply with the allowed deviations listed in R3-3-704(B).
3. The results of an official analyses of any pesticide not in compliance with the allowed deviations listed in R3-3-704(B) shall be sent to the Associate Director, to the registrant, or other responsible person. Upon request, and within 30 days, the Associate Director shall provide the registrant or other responsible person a portion of the noncompliant pesticide sample.

C. Prohibited acts. No person shall purchase a pesticide to repackage the pesticide for distribution and sale without relabeling the repackaged container and complying with the provisions of the Act.

Historical Note

Section R3-3-703 renumbered from R3-3-03 (Supp. 91-4). New Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-704. Labels

A. Within two weeks of a pesticide label revision, a registrant shall provide the Department with two pesticide labels that have been revised since the pesticide was originally registered.

B. The Associate Director may request a copy of a pesticide label if the label on file is older than three years.

ALLOWED DEVIATIONS OF ANALYTICAL RESULTS FROM LABEL CLAIMS FOR ACTIVE INGREDIENTS IN PESTICIDE FORMULATIONS

Claim %	HCV(1) %	HSD(2)	Allowed Deviations for "uniform"(3) samples		Allowed Deviations for "non-uniform"(4) samples	
			Claim - 3HSD	Claim + 6HSD	Claim - 4HSD	Claim + 8HSD
0.001	11.31	0.00011	0.00066	0.00168	0.00055	0.00191
0.005	8.88	0.00044	0.0037	0.0077	0.0032	0.0086
0.008	8.27	0.00066	0.0060	0.0120	0.0054	0.0133
0.01	8.00	0.00080	0.0076	0.0148	0.0068	0.0164
0.03	6.78	0.0020	0.024	0.042	0.022	0.046
0.06	6.11	0.0037	0.049	0.082	0.045	0.089
0.10	5.66	0.0057	0.083	0.13	0.077	0.145
0.40	4.59	0.018	0.34	0.51	0.33	0.55
0.80	4.14	0.033	0.70	1.00	0.67	1.06
1.0	4.00	0.040	0.88	1.24	0.84	1.32
2.0	3.60	0.072	1.78	2.43	1.71	2.58
4.0	3.25	0.13	3.61	4.78	3.48	5.04
6.0	3.05	0.18	5.45	7.10	5.27	7.47
10.0	2.83	0.28	9.15	11.70	8.87	12.26
15.0	2.66	0.40	13.80	17.39	13.40	18.19
20.0	2.55	0.51	18.47	23.06	17.96	24.08
25.0	2.46	0.62	23.15	28.70	22.54	29.93
30.0	2.40	0.72	27.84	34.32	27.12	35.75
35.0	2.34	0.82	32.54	39.92	31.72	41.56
40.0	2.30	0.92	37.25	45.51	36.33	47.35
45.0	2.26	1.01	41.96	51.09	40.94	53.12
50.0	2.22	1.11	46.67	56.66	45.56	58.88
60.0	2.16	1.30	56.11	67.78	54.82	70.37
70.0	2.11	1.48	65.57	78.86	64.09	81.82
80.0	2.07	1.65	75.04	89.93	73.38	93.24
90.0	2.03	1.83	84.51	100.97	82.68	104.63

(1) HCV(%) = Horwitz Coefficients of Variation = $2^{(1 - 0.5 \log (\text{claim } \%/100))}$
(2) HSD = Horwitz Standard Deviation = (Claim %) HCV %)/100
(3) "Uniform" samples are homogeneous products which can be analyzed by established procedures. In most cases, validated analytical methods are available for these samples.
(4) "Non-uniform" samples are non-homogeneous samples or products which are difficult to sample or subsample. These products may not be uniformly mixed or packaged and include some special formulations like natural products. These types of samples include fertilizer containing pesticides, pesticides in pressurized containers, strips, plastic bands, collars, grain and other carriers. Natural product formulations such as rotenone and pyrethrin are also included in this group. When it is necessary to use methods which are not validated for accuracy, precision, and reproducibility in a specific matrix, the "non-uniform" guidelines may be used for allowed deviations. States may use judgment in placing a sample into the "uniform" or "non-uniform" category.

Historical Note

Former rule IV; Former Section R3-3-04 renumbered and amended as Section R3-3-01 effective January 18, 1978 (Supp. 78-1). Section R3-3-704 renumbered from R3-3-04 (Supp. 91-4). New Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-705. Renumbered

Historical Note
Former rule V; Repealed effective January 18, 1978 (Supp. 78-1). Section R3-3-705 renumbered from R3-3-05 (Supp. 91-4).

R3-3-706. Renumbered

Historical Note
Former rule VI; Repealed effective January 18, 1978 (Supp. 78-1). Section R3-3-706 renumbered from R3-3-06 (Supp. 91-4).

R3-3-707. Renumbered

Historical Note
Section R3-3-707 renumbered from R3-3-07 (Supp. 91-4).

R3-3-708. Renumbered

Historical Note
Former rule VIII; Repealed effective January 18, 1978 (Supp. 78-1). Section R3-3-708 renumbered from R3-3-08 (Supp. 91-4).

R3-3-709. Renumbered

Historical Note
Former Administrative rule 1; Repealed effective January 18, 1978 (Supp. 78-1). Section R3-3-709 renumbered from R3-3-09 (Supp. 91-4).

R3-3-710. Renumbered

Historical Note
Section R3-3-710 renumbered from R3-3-10 (Supp. 91-4).

R3-3-711. Renumbered

Historical Note
Adopted effective November 30, 1977 (Supp. 77-6). Former Section R3-3-11 renumbered and amended as Section R3-3-02 effective January 18, 1978 (Supp. 78-1). Section R3-3-711 renumbered from R3-3-11 (Supp. 91-4).

R3-3-712. Renumbered

Historical Note
Adopted effective November 30, 1977 (Supp. 77-6). Former Section R3-3-12 renumbered and amended as Section R3-3-02 effective January 18, 1978 (Supp. 78-1). Section R3-3-712 renumbered from R3-3-12 (Supp. 91-4).

ARTICLE 8. FERTILIZER MATERIALS

R3-3-801. Definitions

In addition to terms and definitions in the Official Publication, which is incorporated by reference, on file with the Secretary of State, and does not include any later amendments, and the definitions in A.R.S. § 3-262, the following term applies to this Article:

"Official Publication" means the Official Publication of the Association of American Plant Food Control Officials, amended 1999. Copies may be purchased from NC Dept. of Agriculture, 4000 Reedy Creek Road, Raleigh, NC 27607-6468.

Historical Note
Former rule I; Former Section R3-3-21 repealed, former Section R3-3-24 renumbered and amended as Section R3-3-21 effective January 12, 1978 (Supp. 78-1). Amended effective March 23, 1979 (Supp. 79-2). Section R3-3-801 renumbered from R3-3-21 (Supp. 91-4). Section repealed; new Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-802. Licensure; Specialty Fertilizer Registration; Fees

A. Commercial fertilizer license. Any person applying for a commercial fertilizer license, under A.R.S. § 3-272, to manufacture or distribute commercial fertilizer, shall provide the following information on the license application provided by the Department with a nonrefundable fee of $125 for each year of the license:
1. The following information on the license application provided by the Department:
2. The name, title, and signature of the applicant;
3. The date of the application;
4. The distributor or manufacturer name, mailing address, telephone, and facsimile number;
5. The Social Security number or tax identification number;
6. The physical location, telephone, and facsimile number of the distributor or manufacturer, if different than subsection (A)(4);
7. The name, address, telephone, and facsimile number of the distributor or manufacturer where inspection fees are paid, if different than subsection (A)(4); and
8. The license time-period option.

B. A commercial fertilizer license is nontransferable, expires on June 30, and shall, at the option of the applicant, be valid for one or two years.

C. Specialty fertilizer registration.
1. Any manufacturer or distributor whose name appears on a specialty fertilizer label shall provide the following information to the Department with a nonrefundable fee of $50 per brand and grade of specialty fertilizer for each year of the registration:
   a. The name, address, telephone number, and signature of the applicant;
   b. The name and address of the company on the label;
   c. The date of the application;
   d. The grade, brand, and name of the specialty fertilizer;
   e. The current specialty fertilizer label; and
   f. The registration time-period option.
2. A specialty fertilizer registration is nontransferable, expires on June 30, and shall, at the option of the applicant, be valid for one or two years.
3. If an applicant elects a two-year specialty fertilizer registration, any additional fertilizer registered during that two-year registration shall have the same registration end-date as other fertilizer currently registered by that applicant with the Department.

D. During fiscal year 2011, notwithstanding subsection (C)(1), the nonrefundable fee per brand and grade of specialty fertilizer is $40.

Historical Note
Former rule II; Former Section R3-3-22 repealed, former Section R3-3-25 renumbered and amended as Section R3-3-22 effective January 12, 1978 (Supp. 78-1). Section R3-3-802 renumbered from R3-3-22 (Supp. 91-4). Section repealed; new Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4). Amended by exempt rulemaking at 16 A.A.R. 2026, effective September 21, 2010 (Supp. 10-3).

R3-3-803. Tonnage Reports; Inspection Fee

A. Quarterly tonnage reports and inspection fee.

1. The inspection fee for all commercial fertilizers, including specialty fertilizers, sold or distributed in Arizona is 25¢ per ton. The tonnage shall be rounded to the nearest whole ton.
2. Any applicant applying for and receiving a new license after March 15, June 15, September 15, or December 15 is not required to file a quarterly tonnage report for the quarter in which the license application is issued. Any commercial fertilizer distributed in the final two weeks of the initial application quarter shall be included on the next full quarterly report. Any person who distributed commercial fertilizer without a license as required under A.R.S. § 3-2009 shall pay all past due inspection fees and late penalties before a license is issued.
3. Any licensee not estimating annual tonnage shall file the following information on a quarterly statement provided by the Department no later than the last day of January, April, July, and October of each year for the preceding calendar quarter and pay the inspection fees and any penalties, if applicable:
   a. If the inspection fee is being passed on to the purchaser:
      i. The assigned number and name of the currently licensed company;
      ii. The commercial fertilizer by code or grade;
      iii. The amount of commercial fertilizer in whole tons;
      iv. The name, title, telephone number, and signature of the licensee or the licensee's authorized representative; and
      v. The date of the report.
   b. If the licensee pays tonnage fees for the distribution of a commercial fertilizer:
      i. The grade;
      ii. The amount of commercial fertilizer distribution by county;
      iii. If the commercial fertilizer is dry, whether it is a bulk agricultural product, a bagged agricultural product, or a non-agricultural product;
      iv. If the commercial fertilizer is liquid, whether it is an agricultural or non-agricultural product;
      v. The name, title, telephone number, and signature of the licensee or the licensee's authorized representative; and
      vi. The date of the report.

B. Estimated tonnage report. A licensee may estimate the annual fertilizer material tonnage if it is 400 tons or less per year and the licensee does not pass the inspection fee responsibility to the purchaser.
1. The licensee shall submit the estimated annual commercial fertilizer tonnage report to the Department with the annual inspection fee no later than July 31 of each year. The tonnage report shall contain:
   a. The estimated tonnage of commercial fertilizer to be distributed;
   b. The grade;
   c. The amount of distribution by county;
   d. If the commercial fertilizer is dry, whether it is a bulk agricultural product, a bagged agricultural product, or a non-agricultural product;
   e. If the commercial fertilizer is liquid, whether it is an agricultural or non-agricultural product;
   f. The name, title, telephone number, and signature of the licensee or the licensee's authorized representative; and
   g. The date of the report.
2. The licensee shall pay at least $8 per year. Adjustments for overestimates or underestimates for a licensee with 400 tons or less of actual tonnage sales shall be made on the next year's estimating form. Adjustments of underestimates of licensees with actual tonnage sales more than 400 tons shall be made no later than July 31 of each year.
3. The licensee shall verify the accuracy of the previous year's tonnage estimates to actual tonnage sales and submit the tonnage verification no later than July 31 of each year.
4. Overestimation of tonnage.
   a. The Department shall not refund any inspection fee based on an overestimation if the licensee does not re-license in the subsequent year;
   b. If a licensee applies for a license in the subsequent year, the Department shall apply any overestimation to the subsequent year's tonnage fees.

C. During fiscal year 2011, notwithstanding subsection (A)(1), the inspection fee for all commercial fertilizers, including specialty fertilizers, sold or distributed in Arizona is $0.10 per ton. The tonnage must be rounded to the nearest whole ton.

Historical Note

Former rule III; Former Section R3-3-23 repealed, former Section R3-3-32 renumbered as Section R3-3-23 effective January 12, 1978 (Supp. 78-1). Amended effective March 23, 1979 (Supp. 79-2). Section R3-3-803 renumbered from R3-3-23 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2). New Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4). Amended by exempt rulemaking at 16 A.A.R. 2026, effective September 21, 2010 (Supp. 10-3).

R3-3-804. General Provisions

A. Labeling.
1. The grade numbers for primary nutrients that accompany the brand name of a commercial fertilizer shall be listed on the label in the following order: total nitrogen, available phosphate, and soluble potash. Other guaranteed nutrient values shall not be included with the grade numbers unless:
   a. The guaranteed nutrient value follows the grade number;
   b. The guaranteed nutrient value is immediately preceded with the name of the claimed nutrient to which it refers in the guaranteed analysis; and
   c. The name printed on the label is as prominent as the numbers.
2. The materials from which claimed nutrients are derived shall be listed on the label.
3. No grade is required for fertilizer materials that claim no primary plant nutrient (i.e., 0-0-0).
4. All guaranteed nutrients, except phosphate and potash, shall be stated in terms of elements.
5. The label shall include the brand name of a fertilizer. Misleading or confusing numerals shall not be used in the brand name on the label.
6. Fertilizer material not defined in the Official Publication may be used as fertilizer material if a definition or other method of analysis and agronomic data for fertilizer material is approved by the Associate Director.

B. Claims and misleading statements.
1. Any nutrient claimed as a fertilizer material shall be accompanied by a minimum guarantee for the nutrient. An ingredient shall not be claimed as a nutrient unless a laboratory method of analysis approved by the Associate Director exists for the nutrient.

2. Scientific data supporting the claim of improved efficacy or increased productivity shall be made available for inspection to the Associate Director upon request.
3. If the name of a fertilizer material is used as part of a fertilizer brand name, such as blood, bone or fish, the guaranteed nutrients shall be derived from or supplied entirely by the named fertilizer material.
4. Fertilizer material subject to this Article and applicable laws shall not bear false or misleading statements.

C. Deficiencies.
1. The value of a nutrient deficiency in a fertilizer material shall take into account total value of all nutrients at the guaranteed level and the price of the fertilizer material at the time of sale.
2. A deficiency in an official sample of mixed fertilizer resulting from non-uniformity is not distinguishable from a deficiency due to actual plant nutrient shortage and is subject to official action.

D. All investigational allowances shall be conducted as prescribed in the Official Publication, which is incorporated by reference, on file with the Office of the Secretary of State, and does not include any later amendments or editions.

E. Leased fertilizer material storage containers shall be clearly labeled with the following:
1. Grade numbers;
2. Brand name, if applicable; and
3. The statement, "Leased by (Name and address of lessor) to (Name and address of lessee)."

C. During fiscal year 2011, notwithstanding subsection (A)(1), the inspection fee for all commercial fertilizers, including specialty fertilizers, sold or distributed in Arizona is $0.10 per ton. The tonnage must be rounded to the nearest whole ton.

Historical Note
Former rule IV; Former Section R3-3-24 renumbered and amended as Section R3-3-21, new Section R3-3-24 adopted effective January 12, 1978 (Supp. 78-1). Section R3-3-804 renumbered from R3-3-24 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2). New Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-805. Repealed

Historical Note
Former rule V; Former Section R3-3-25 renumbered and amended as Section R3-3-22, new Section R3-3-25 adopted effective January 12, 1978 (Supp. 78-1). Section R3-3-805 renumbered from R3-3-25 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-806. Repealed

Historical Note
Former rule VI; Former Section R3-3-26 repealed, new Section R3-3-26 adopted effective January 12, 1978 (Supp. 78-1). Section R3-3-806 renumbered from R3-3-26 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-807. Repealed

Historical Note
Former rule VII; Former Section R3-3-27 repealed, new Section R3-3-27 adopted effective January 12, 1978 (Supp. 78-1). Section R3-3-807 renumbered from R3-3-27 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-808. Repealed

Historical Note
Former rule VIII; Former Section R3-3-28 repealed effective January 12, 1978 (Supp. 78-1). New Section R3-3-28 adopted effective March 23, 1979 (Supp. 79-2). Section R3-3-808 renumbered from R3-3-28 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-809. Repealed

Historical Note
Former rule IX; Former Section R3-3-29 repealed effective January 12, 1978 (Supp. 1). New Section R3-3-29 adopted effective March 23, 1979 (Supp. 79-2). Section R3-3-809 renumbered from R3-3-29 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-810. Repealed

Historical Note
Former rule X; Former Section R3-3-30 repealed effective January 12, 1978 (Supp. 78-1). New Section R3-3-30 adopted effective March 23, 1979 (Supp. 79-2). Section R3-3-810 renumbered from R3-3-30 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-811. Repealed

Historical Note
Former Administrative rule 1; Amended effective December 14, 1979 (Supp. 79-6). Section R3-3-811 renumbered from R3-3-31 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-812. Renumbered

Historical Note
Adopted effective August 31, 1977 (Supp. 77-4). Former Section R3-3-32 renumbered as Section R3-3-23 effective January 12, 1978 (Supp. 78-1). Section R3-3-812 renumbered from R3-3-32 (Supp. 91-4).

ARTICLE 9. COMMERCIAL FEED

R3-3-901. Definitions

In addition to the feed ingredient definitions and feed terms in the Official Publication, which is incorporated by reference, on file with the Secretary of State, and does not contain any later amendments or editions, and the definitions in A.R.S. § 3-2601, the following terms apply to this Article:
1. *"Commercial feed" means all materials, except whole seeds unmixed or physically altered entire unmixed seeds, that are distributed for use as feed or for mixing in feed. Commercial feed includes raw agricultural commodities distributed for use as feed or for mixing in feed when the commodities are adulterated within the meaning of section 3-2611.* A.R.S. § 3-2601(2)
2. "Lot" means any distinct, describable, and measurable quantity that contains no more than 100 tons.
3. "Official Publication" means the Official Publication of the Association of American Feed Control Officials, effective January 1, 1999. Copies may be purchased from the Assistant Secretary/Treasurer, P.O. Box 478, Oxford, IN 47971.

Historical Note
Former rule I; Former Section R3-3-41 renumbered and

amended as Section R3-3-42, new Section R3-3-41 adopted effective January 12, 1978 (Supp. 78-1). Amended effective April 13, 1978 (Supp. 78-2). Amended effective February 3, 1981 (Supp. 81-1). Section R3-3-901 renumbered from R3-3-41 (Supp. 91-4). Amended by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-902. Licensure; Fee; Ammoniation

A. Any person applying for a commercial feed license, under A.R.S. § 3-2609, to manufacture or distribute commercial feed shall provide the following information and a nonrefundable fee of $10 for each year of the license:
1. A copy of the label of each commercial feed product intended for distribution within the state or not already filed by the applicant with the Department; and
2. The following information on the license application provided by the Department:
   a. The name, title, and signature of the applicant;
   b. The distributor or manufacturer name, mailing address, telephone, and facsimile number;
   c. The social security number or tax identification number;
   d. The date of the application;
   e. The physical location, telephone, and facsimile number of the distributor or manufacturer, if different than subsection (A)(2)(b);
   f. The name, address, telephone, and facsimile number of the distributor or manufacturer where inspection fees are paid, if different than subsection (A)(2)(b); and
   g. The license time-period option.

B. A commercial feed license is nontransferable, expires on June 30, and shall, at the option of the applicant, be valid for one or two years.

C. Ammoniation. Any person who ammoniates feed or feed material for distribution or sale shall obtain a commercial feed license and is responsible for all testing, labeling, or other requirements pertaining to commercial feed, unless the feed is ammoniated on the premises of the person using the ammoniated feed.

Historical Note

Former rule II; Former Section R3-3-42 renumbered and amended as Section R3-3-43, former Section R3-3-41 renumbered and amended as Section R3-3-42 effective January 12, 1978 (Supp. 78-1). Section R3-3-902 renumbered from R3-3-42 (Supp. 91-4). Section repealed; new Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-903. Tonnage Reports; Inspection Fee

A. Quarterly tonnage report and inspection fee.
1. The inspection fee for all commercial feed sold or distributed in Arizona is 20¢ per ton. The tonnage shall be rounded to the nearest whole ton.
2. Any applicant applying for and receiving a new license after March 15, June 15, September 15, or December 15 is not required to file a quarterly tonnage report for the quarter in which the license application is issued. Any commercial feed distributed in the final two weeks of the initial application quarter shall be included on the next full quarterly report. Any person who distributed commercial feed without a license as required under A.R.S. § 3-2609 shall pay all past due inspection fees and late penalties before a license is issued.
3. Any licensee not estimating annual tonnage shall file the following information on a quarterly statement provided by the Department no later than the last day of January, April, July, and October of each year for the preceding calendar quarter and pay the inspection fees and any penalties, if applicable:
   a. If the inspection fee is being passed on to the purchaser:
      i. The assigned number and name of the currently licensed company;
      ii. The amount of commercial feed in whole tons and by type, indicating whether the commercial feed is bagged or bulk;
      iii. The name, title, telephone number, and signature of the licensee or the licensee's authorized representative; and
      iv. The date of the report.
   b. If the licensee pays a tonnage fee for the distribution of a commercial feed:
      i. The amount of commercial feed in whole tons and by type, indicating whether the commercial feed is bagged or bulk;
      ii. The name, title, telephone number, and signature of the licensee or the licensee's authorized representative; and
      iii. The date of the report.

B. Estimated tonnage report. A licensee may estimate the annual commercial feed tonnage if it is 400 tons or less per year and the licensee does not pass the inspection fee responsibility to the purchaser.
1. The licensee shall submit the estimated annual commercial feed tonnage report to the Department with the annual inspection fee no later than July 31 of each year. The tonnage report shall contain:
   a. The estimated tonnage of commercial feed to be distributed;
   b. The amount of commercial feed in whole tons and by type, indicating whether the commercial feed is bagged or bulk;
   c. The name, title, telephone number, and signature of the licensee or the licensee's authorized representative; and
   d. The date of the report.
2. The licensee shall pay at least $8 per year. Adjustments for overestimates or underestimates for licensees with 400 tons or less of actual tonnage sales shall be made on the next year's estimating form. Adjustments of underestimates of licensees with actual tonnage sales more than 400 tons shall be made no later than July 31 of each year.
3. The licensee shall verify the accuracy of the previous year's tonnage estimates to actual tonnage sales and submit the tonnage verification no later than July 31 of each year.
4. Overestimation of tonnage.
   a. The Department shall not refund any inspection fee based on an overestimation if the licensee does not re-license in the subsequent year;
   b. If a licensee applies for a license in the subsequent year, the Department shall apply any overestimation to the subsequent year's tonnage fees.

Historical Note

Former rule III; Former Section R3-3-43 renumbered and amended as Section R3-3-44, former Section R3-3-42 renumbered and amended as Section R3-3-43 effective January 12, 1978 (Supp. 78-1). Amended effective February 3, 1981 (Supp. 81-1). Section R3-3-903 renumbered from R3-3-43 (Supp. 91-4). Section repealed; new Section adopted by final rulemaking at 5 A.A.R. 4419, effec-

tive November 3, 1999 (Supp. 99-4).

R3-3-904. Milk and Milk Products Decharacterized for Use as Commercial Feed

A. A person shall not sell, offer for sale, store, transport, receive, trade or barter, any milk or milk product for commercial feed unless the milk or milk product:
1. Meets Grade A milk standards as specified in A.A.C. R3-2-802;
2. Is produced as prescribed in A.A.C. R3-2-805; or
3. Is decharacterized with food coloring approved by the Federal Food, Drug, and Cosmetic Act and the decharacterization:
   a. Does not affect nutritive value; and
   b. Matches the color on the Color Requirement card, incorporated by reference and on file with the Office of the Secretary of State. Any person decharacterizing milk and milk products may obtain a Color Requirement card from the Environmental Services Division Office, Arizona Department of Agriculture, 1688 West Adams, Phoenix, Arizona 85007.

B. Labeling. All milk or milk product commercial feed labels shall be approved by the Associate Director before use.
1. The principal display panel of a decharacterized milk or milk product commercial feed container shall prominently state "WARNING - NOT FOR HUMAN CONSUMPTION" in capital letters. The letters shall be at least 1/4 inch on containers of 8 oz. or less and at least 1/2 inch on all other containers.
2. The container label shall also bear the statement "This product has not been pasteurized and may contain harmful bacteria" in letters at least 1/8 inch in height.

C. Milk or milk products intended for commercial feed shall not be displayed, sold, or stored at premises where food is sold or prepared for human consumption, unless it meets Grade A standards or is decharacterized and clearly identified "Not for Human Consumption."

Historical Note

Former rule IV; Former Section R3-3-44 repealed, former Section R3-3-43 renumbered and amended as Section R3-3-44 effective January 12, 1978 (Supp. 78-1).Amended effective February 3, 1981 (Supp. 81-1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-904 renumbered from R3-3-44 (Supp. 91-4). Section repealed; new Section adopted by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-905. Labeling; Precautionary Statements

A. Ingredient statement.
1. Each ingredient or collective term for the grouping of ingredients not defined in the Official Publication shall be a common name.
2. All labels for commercial feed and customer-formula feed containing cottonseed or a cottonseed product shall separately list the ingredients in the ingredient statement in addition to any collective term listed.

B. Labeling and expression of guarantees.
1. All labeling and expression of guarantees shall comply with the commercial feed-labeling guide, medicated commercial feed labeling, and expression of guarantees requirements prescribed in the Official Publication, which is incorporated by reference, on file with the Office of the Secretary of State, and does not include any later amendments or editions.
2. The label shall include the brand or product name, and shall indicate the intended use of the feed. The label shall not contain any false or misleading statements.
3. Directions for use and precautionary statements.
   a. All labeling of whole cottonseed, commercial feed, and customer-formula feed containing any additive (including drugs, special purpose additives, or non-nutritive additives) shall clearly state its safe and effective use. The directions shall not require special knowledge of the purpose and use of the feed.
   b. Directions for use and precautionary statements shall be provided for feed containing non-protein nitrogen as specified in R3-3-906.
   c. All whole cottonseed or commercial feed, and customer-formula feed delivered to the consumer shall be accompanied by an accurate label, invoice, weight ticket or other documentation approved by the Department. The documentation shall be left with the consumer and shall contain the following:
      i. "This feed contains 20 or less ppb aflatoxin and may be fed to any animal;" or
      ii. "WARNING: This feed contains more than 20 ppb but not more than 300 ppb aflatoxin and shall not be fed to lactating animals whose milk is intended for human consumption."
   d. A distributor of whole cottonseed or cottonseed product intended for further processing, planting seed, or for any other purpose approved by the Director, shall document in writing to the Department that:
      i. The lot of whole cottonseed or cottonseed product will not be used as commercial feed until the lot is tested and compliant with all state laws; and
      ii. The documentation prescribed in subsection (B)(3)(c) is not required.
   e. The distributor shall maintain the documentation for one year.
   f. The lot of whole cottonseed or cottonseed product shall be labeled as follows: "WARNING: This material has not been tested for aflatoxin and shall not be distributed for feed or fed to any animal until tested and brought into full compliance with all state laws."

Historical Note

Former rule V; Former Section R3-3-45 repealed, new Section R3-3-45 adopted effective January 12, 1978 (Supp. 78-1). Amended effective February 3, 1981 (Supp. 81-1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-905 renumbered from R3-3-45 (Supp. 91-4). Amended by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-906. Non-protein Nitrogen

A. Urea and other non-protein nitrogen products are acceptable ingredients in commercial feed for ruminant animals as a source of equivalent crude protein.
1. If commercial feed contains more than 8.75% of equivalent crude protein from all forms of non-protein nitrogen or if the equivalent crude protein from all forms of non-protein nitrogen exceeds 1/3 of the total crude protein, the label shall include directions for the safe use of the feed and the following precautionary statement: "Caution: Use as Directed."
2. The directions for use and the precautionary statement shall be printed and placed on the label so that an ordinary person under customary conditions of purchase and use can read and understand the directions.

B. Non-protein nitrogen products are acceptable ingredients in commercial feeds distributed to non-ruminant animals as a source of nutrients other than equivalent crude protein. The maximum equivalent crude protein from non-protein nitrogen sources in non-ruminant rations shall not exceed 1.25% of the total daily ration.

C. A medicated feed label shall contain feeding directions or precautionary statements, or both, with sufficient information to ensure that the feed is properly used.

Historical Note

Former rule VI; Former Section R3-3-46 repealed, new Section R3-3-46 adopted effective January 12, 1978 (Supp. 78-1). Amended effective January 29, 1979 (Supp. 79-1). Amended effective February 3, 1981 (Supp. 81-1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-906 renumbered from R3-3-46 (Supp. 91-4). Amended by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-907. Repealed

Historical Note

Former rule VII; Former Section R3-3-47 repealed, former Section R3-3-54 renumbered as Section R3-3-47 effective January 12, 1978 (Supp. 78-1). Amended by adding subsection (F) effective July 20, 1984 (Supp. 84-4). Section R3-3-907 renumbered from R3-3-47 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-908. Repealed

Historical Note

Former rule VIII; Former Section R3-3-48 repealed, new Section R3-3-48 adopted effective January 12, 1978 (Supp. 78-1). Amended for spelling correction, subsection (E), effective January 29, 1979 (Supp. 79-1). Amended by adding subsection (J) effective July 20, 1984 (Supp. 84-4). Section R3-3-908 renumbered from R3-3-48 (Supp. 91-4). Repealed effective April 11, 1994 (Supp. 94-2).

R3-3-909. Repealed

Historical Note

Former rule IX; Former Section R3-3-49 repealed, new Section R3-3-49 adopted effective Jan. 12, 1978 (Supp. 78- 1). Amended by adding subsection (D) effective February 3, 1981 (Supp. 81-1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-909 renumbered from R3-3-49 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-910. Drug and Feed Additives

A. Drug and feed additive approval.

1. Before a label is approved by the Associate Director for commercial feed containing additives (including drugs, other special purpose additives, or non-nutritive additives), the distributor may be required to submit evidence demonstrating the safety and efficacy of the commercial feed when used according to the label directions if the material is not recognized as a commercial feed.
2. If a complaint has been filed with the Department, the distributor may be required to submit evidence demonstrating the safety and efficacy of the commercial feed when used according to the label directions.

B. Evidence of safety and efficacy of a commercial feed may be:

1. If the commercial feed containing additives conforms to the requirements of "Food Additives Permitted in Feed and Drinking" in the Official Publication, which is incorporated by reference, on file with the Office of the Secretary of State, and does not included any later amendments or editions; or
2. If the commercial feed is a substance generally recognized as safe and is defined in the Official Publication or listed as a "Substances Generally Recognized as Safe in Animal Feeds" in the Official Publication, which is incorporated by reference, on file with the Office of the Secretary of State, and does not include any later amendments or editions.

Historical Note

Former rule X; Former Section R3-3-50 repealed, new Section 3-3-50 adopted effective January 12, 1978 (Supp. 78- 1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-910 renumbered from R3-3-50 (Supp. 91-4). Amended by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-911. Repealed

Historical Note

Former rule XI: Former Section R3-3-51 repealed, new Section R3-3-51 adopted effective January 12, 1978 (Supp. 78- 1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-911 renumbered from R3-3-51 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-912. Repealed

Historical Note

Former rule XII: Former Section R3-3-52 repealed. New Section R3-3-52 adopted effective January 12, 1978 (Supp. 78-1). Section R3-3-912 renumbered from R3-3-52 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-913. Sampling Methods

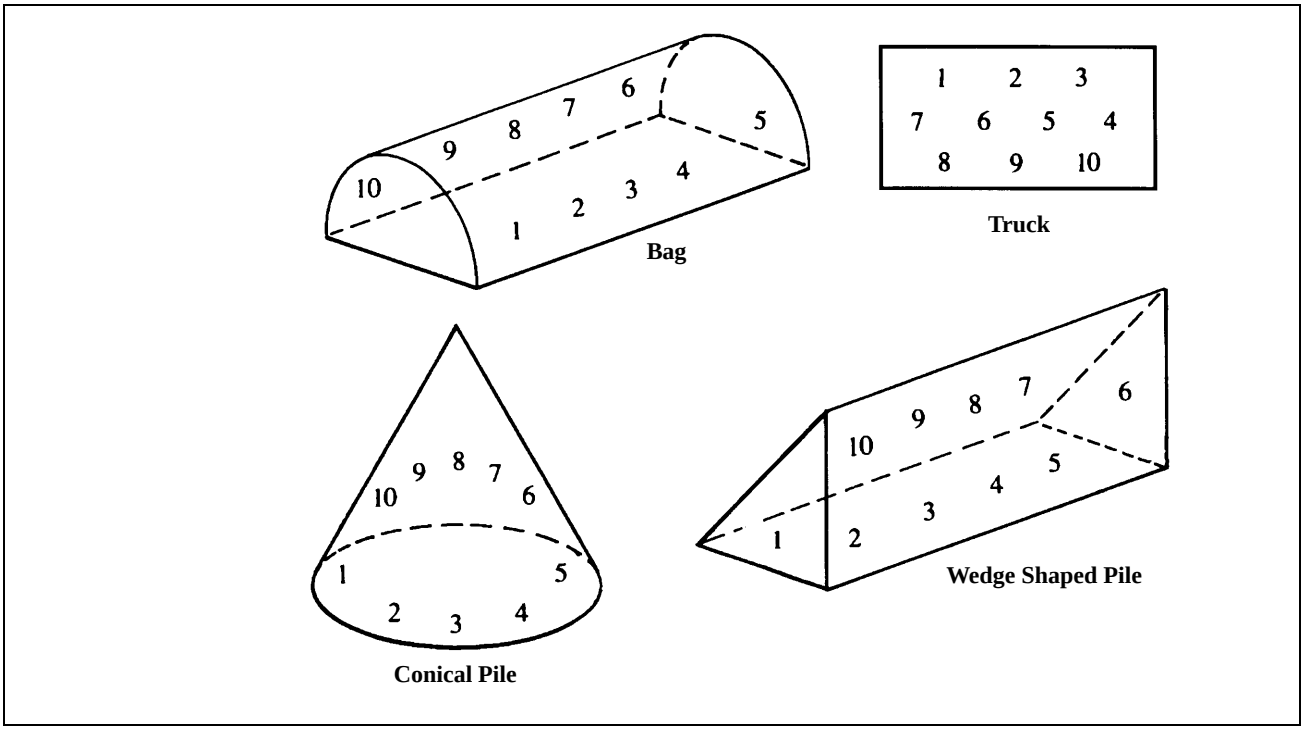
A. Sampling commercial feed. The methods of sampling commercial feed shall comply with the procedures established in 4.1.01, Official Method 965.16 Sampling of Animal Feed, in the "Official Methods of Analysis of AOAC International," 16th Edition, 1997, which is incorporated by reference, on file with the Office of the Secretary of State, and does not include any later amendments or editions of the incorporated matter. Copies may be purchased from AOAC International, 481 North Frederick Avenue, Suite 500, Gaithersburg, Maryland 20877-2417.

B. Sampling whole cottonseed.

1. Sample size - A gross sample not less than 30 pounds shall be taken from a lot. The gross sample shall consist of not less than 10 probes evenly spaced or 10 stream sample passes taken following the procedure prescribed in subsection (B)(4)(b).
2. Sample container - The sample container shall consist of a clean cloth, burlap, or paper or plastic mesh bags. The sample shall be delivered to the laboratory within 48 hours (excluding weekends and holidays), stored in a dry, well-aerated location, and the results of the analysis reported by a certified laboratory within five working days from receipt of sample.
3. Sampling equipment. Sampling equipment includes:
   a. Scale, graduated in one-half pound increments, and any of the following:
   b. Corkscrew trier, approximately 50 inches in length and capable of taking at least a three-pound sample,

c. Pneumatic probe sampler such as the "Probe-a-Vac" pneumatic sampler,
d. Stream sampler: A container at least 8 inches x 5 inches x 5 1/2 inches attached to a pole that enables the sampler to pass the container through falling streams of cottonseed,
e. Automatic stream samplers or other sampling equipment if scientific data documenting its ability to obtain a representative sample is approved by the Associate Director,
f. Shop-vac 1.5 hp vacuum system capable of holding 12 gallons, modified to hold a 15 ft. length of vacuum hose attached to a 13 ft. length of 3/4 inch PVC pipe.

4. Sampling procedure.
   a. If a corkscrew trier or Probe-a-Vac sampler is used, at least 10 evenly spaced probes shall be taken per lot. The probed samples shall be taken according to the following patterns:



The probes shall penetrate at least 50 inches, and at least two of the 10 probes per sample shall reach the bottom of the lot being sampled. The probe shall be inserted at an angle perpendicular to the face of the lot.
   b. If a shop-vac system is used, at least 15 evenly spaced probes shall be taken per lot. The sampling patterns specified in subsection (B)(4)(a) shall be modified to allow for the additional samples.
   c. Stream samples shall be taken while the cottonseed is being discharged, if there is a uniform discharge flow over a set period of time. The sample shall consist of at least 10 evenly timed and spaced passes through the discharge flow, resulting in the sample size specified in subsection (B)(1).
   d. The gross sample shall be weighed to the nearest 1/2 pound but shall not be reduced in size. If any gross sample does not meet the minimum 30 pound weight, that gross sample shall be discarded and the sampling procedure repeated from the beginning. If the shop-vac gross sample is not at least 10 pounds, the sample shall be discarded and the sampling procedure repeated from the beginning.
   e. The Associate Director shall approve any modified sampling procedure if scientific data is provided that documents that representative samples will be obtained through the modified sampling procedure.

Historical Note

Former Administrative Rule 1. Former Section R3-3-53 repealed effective January 12, 1978 (Supp. 78-1). New Section R3-3-53 adopted as an emergency effective October 10, 1978, pursuant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-5). Amended as an emergency effective October 11, 1978, pursuant to A. R. S. § 41-1003, valid for only 90 days (Supp. 78-5). New Section R3-3-53 adopted effective February 3, 1981 (Supp. 81-1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-913 renumbered from R3-3-53 (Supp. 91-4). Patterns omitted in Supp. 98-4 under subsection (C)(4)(a) have been corrected to reflect filed rules (Supp. 99-1). Amended by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-914. Repealed

Historical Note

Adopted effective August 31, 1977 (Supp. 77-4). Former Section R3-3-54 renumbered as Section R3-3-47 effective January 12, 1978 (Supp. 78-1). New Section R3-3-54 adopted as an emergency effective October 10, 1978, pur-

suant to A.R.S. § 41-1003, valid for only 90 days (Supp. 78-5). New Section R3-3-54 adopted effective February 3, 1981 (Supp. 81-1). Amended effective July 20, 1984 (Supp. 84-4). Section R3-3-914 renumbered from R3-3-54 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-915. Repealed

Historical Note

Adopted effective December 14, 1979 (Supp. 79-6). Section R3-3-915 renumbered from R3-3-55 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

R3-3-916. Repealed

Historical Note

Adopted effective July 20, 1994 (Supp. 84-4). Section R3-3-916 renumbered from R3-3-56 (Supp. 91-4). Section repealed by final rulemaking at 5 A.A.R. 4419, effective November 3, 1999 (Supp. 99-4).

ARTICLE 10. AGRICULTURAL SAFETY

R3-3-1001. Definitions

In addition to the definitions set forth in A.R.S. § 3-3101 the following terms apply to this Article:

1. "Agricultural emergency" means a sudden occurrence or set of circumstances that:
   a. An agricultural employer could not have anticipated and over which the agricultural employer has no control,
   b. Requires entry into a treated area during a restricted-entry interval, and
   c. No alternative practices would prevent or mitigate a substantial economic loss.
2. "Agricultural employer" means any person, including a farm labor contractor, who hires or contracts for the services of workers for any type of compensation, to perform activities related to the production of agricultural plants, or any person who is an owner of, or is responsible for, the management or condition of an agricultural establishment that uses agricultural workers.
3. "Agricultural establishment" means any farm, forest, nursery, or greenhouse using pesticide products that are required by label to be used in accordance with the federal worker protection standards. An establishment is exempt from the requirements of this Article if the establishment uses only products that do not have a federal worker protection statement on the label.
4. "Agricultural plant" means any plant grown or maintained for commercial or research purposes and includes:
   a. Food, feed, and fiber plants;
   b. Trees;
   c. Turfgrass;
   d. Flowers, shrubs;
   e. Ornamentals; and
   f. Seedlings.
5. "Chemigation" means the application of pesticides through irrigation systems.
6. "Consultation" means an on-site visit by, or a response to an inquiry from, the Agricultural Consulting and Training program personnel, pursuant to A.R.S. § 3-109.01, to review agricultural practices and obtain documented non-regulatory advice to help ensure compliance with the issues addressed.
7. *"De minimis violation" means a condition or practice which, although undesirable, has no direct or immediate relationship to safety or health* (A.R.S. § 3-3101(2)).
8. "Early entry" means any worker or handler entering a treated area after a pesticide is applied to a location on the agricultural establishment and before the expiration of the restricted-entry interval.
9. "Farm labor contractor" means any person who hires or contracts for the services of workers for any type of compensation, to perform activities related to the production of agricultural plants, but does not own or is not responsible for, the management or condition of an agricultural establishment.
10. "Flagger" means a person who indicates an aircraft spray swath width from the ground.
11. "Gravity based penalty" means an unadjusted penalty calculated for each violation, or combined or grouped violations, by adding the gravity factor to the other penalty factors.
12. "Handler" means any person, including a self-employed person:
    a. Who is employed for any type of compensation by an agricultural establishment or commercial pesticide handling establishment to which this Article applies and who does any of the following:
       i. Mixing, loading, transferring, or applying pesticides;
       ii. Disposing of pesticides, or non-triple rinsed or equivalent pesticide containers;
       iii. Handling open containers of pesticides;
       iv. Acting as a flagger;
       v. Cleaning, adjusting, handling, or repairing any part of mixing, loading, or application equipment that may contain pesticide residue;
       vi. Assisting with the application of pesticides;
       vii. Entering a greenhouse or other enclosed area after the pesticide application and before either the inhalation exposure level listed in the labeling is reached or any of the ventilation criteria in R3-3-1002 or in the labeling has been met to operate ventilation equipment, adjust or remove coverings used in fumigation, or monitor air levels.
       viii. Entering a treated area outdoors after pesticide application of any soil fumigant to adjust or remove soil coverings.
       ix. Performing tasks as a pest control advisor during any pesticide application.
    b. The term handler does not include:
       i. Any person who handles only pesticide containers that are emptied or cleaned according to pesticide product labeling instructions or, in the absence of labeling instructions, are triple-rinsed or its equivalent;
       ii. Any person who handles only pesticide containers that are unopened; or
       iii. Any person who repairs, cleans, or adjusts the pesticide application equipment at an equipment maintenance facility, after the equipment is decontaminated, and is not an employee of the handler employer.
13. "Handler employer" means any person who is self-employed as a handler or who employs a handler, for any type of compensation.
14. *"Nonserious violation" means a condition or practice in a place of employment which does not constitute a seri-*

ous violation but which violates a standard or rule and has a direct or immediate relationship to safety or health, unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the condition or practice (A.R.S. § 3-3101(6)).

15. "Personal protective equipment" means devices and apparel that are worn to protect the body from contact with pesticides or pesticide residues, including coveralls, chemical-resistant suits, chemical-resistant gloves, chemical-resistant footwear, respiratory protection devices, chemical-resistant aprons, chemical-resistant headgear, and protective eyewear.
16. "Pest control advisor" means a crop advisor, as defined in 40 CFR 170, who assesses pest numbers or damage, pesticide distributions, or the status or requirements to sustain the agricultural plants. The term does not include a person who performs hand-labor tasks or handling activities.
17. *"Pesticide" means:*
    (a) any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest.
    (b) any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant (A.R.S. § 3-341(21)).
18. "Restricted-entry interval" means the time after the completion of a pesticide application during which entry into a treated area is restricted as indicated by the pesticide product label.
19. *"Restricted use pesticide" means a pesticide classified as such by the United States Environmental Protection Agency* (A.R.S. § 3-361(8)).
20. *"Serious violation" means a condition or practice in a place of agricultural employment which violates a standard or rule or section 3-3104, subsection (A) and produces a substantial probability that death or serious physical harm could result, unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of such condition or practice* (A.R.S. § 3-3101(10)).
21. "Substantial economic loss" means a loss in yield greater than expected based on the experience and fluctuations of crop yields in previous years. Only losses caused by an agricultural emergency specific to the affected site and geographic area are considered. The contribution of mismanagement is not considered in determining the loss.
22. "Treated area" means any area to which a pesticide is being directed or has been directed.
23. "Worker" means any person, including a self-employed person, who is employed for any type of compensation and who performs activities relating to the production of agricultural plants on an agricultural establishment. The requirements of this Article do not apply to any person employed by a commercial pesticide-handling establishment who performs tasks as a pest control advisor.

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1001 renumbered from R3-8-201 (Supp. 91-4). Amended effective March 3, 1995 (Supp. 95-1). Amended effective October 8, 1998 (Supp. 98-4).

R3-3-1002. Worker Protection Standards

Worker protection regulations shall be as prescribed in 40 CFR 170, excluding 40 CFR 170.130 and 170.230, as amended July 1, 2002. This material is incorporated by reference, on file with the Department, and does not include any later amendments or editions.

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1002 renumbered from R3-8-202 (Supp. 91-4). Section repealed, new Section adopted effective March 3, 1995 (Supp. 95-1). R3-3-1002 renumbered to R3-3-1003; new Section R3-3-1002 adopted effective October 8, 1998 (Supp. 98-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-1003. Pesticide Safety Training

A. Training exemptions.
1. Handler. A handler who currently meets one of the following conditions is exempt from the requirements under subsection (D)(1) and (D)(3):
   a. Certified as an applicator of restricted use pesticides under R3-3-208,
   b. Certified as a trainer under this Section, or
   c. Certified or licensed as a crop advisor by a program approved in writing by the EPA or the Department.
2. Worker. A worker who meets one of the following conditions is exempt from the requirements under subsections (C), (D)(1), and (D)(2):
   a. Certified as an applicator of restricted use pesticides under R3-3-208,
   b. Holds a current handler card under subsection (D)(4),
   c. Certified as a trainer under this Section, or
   d. Certified or licensed as a crop advisor by a program approved in writing by the EPA or the Department.

B. Training verification.
1. Handler. The handler employer shall verify, before the handler performs a handling task, that the handler:
   a. Meets a condition listed in subsection (A)(1); or
   b. Received pesticide safety training during the last three years, excluding the month in which the training was completed.
2. Worker. The agricultural employer shall verify that a worker:
   a. Meets a condition listed in subsection (A)(2); or
   b. Received pesticide safety training during the last five years before allowing a worker entry into an area:
      i. To which a pesticide was applied during the last 30 days, or
      ii. For which a restricted-entry interval for a pesticide was in effect during the last 30 days.
3. The agricultural employer and the handler employer, or designee, shall verify that a training exemption claimed in subsection (A)(1) or (A)(2) is valid by reviewing the appropriate certificate issued by the Department, the EPA, or an EPA-approved program.
4. The agricultural employer and the handler employer, or designee, shall visually inspect the handler's or worker's EPA-approved Worker Protection Standard training verification card to verify that the training requirements prescribed in subsections (B)(1) or (B)(2) are met. If the employer believes that a worker or handler training verification card is valid, the verification requirement of subsection (B)(1) or (B)(2) is satisfied.
5. An EPA-approved Worker Protection Standard training verification card is valid if issued:
   a. As prescribed in this Section, or
   b. By a program approved by the Department, and
   c. Within the time-frames prescribed in subsection (B)(1) or (B)(2).
6. The agricultural employer shall provide a worker who does not possess the training required in subsection

(B)(2) with the pesticide safety information prescribed in subsection (C) and the pesticide safety training prescribed in subsection (D)(1) and (D)(2). The agricultural employer shall provide pesticide safety training to a worker before:

a. The worker enters a treated area on an agricultural establishment during a restricted-entry interval to perform early-entry activities; or
b. The sixth day that the worker enters an area on the agricultural establishment if a pesticide has been applied within the past 30 days, or a restricted-entry interval for the pesticide has been in effect within the past 30 days.

C. Pesticide safety information.

1. The agricultural employer shall provide pesticide safety information to a worker who does not meet the training requirements of subsection (B) before the worker enters an area on an agricultural establishment if, within the last 30 days a pesticide has been applied or a restricted-entry interval for the pesticide has been in effect. The agricultural employer shall provide safety information in a manner that the worker can understand. The safety information shall include the following:
   a. Pesticides may be on or in plants, soil, irrigation water, or drifting from nearby applications;
   b. Workers may prevent pesticides from entering their bodies by:
      i. Following directions or signs, or both, about keeping out of a treated or restricted area;
      ii. Washing before eating, drinking, chewing gum or using tobacco products, or using the toilet;
      iii. Wearing work clothing that protects the body from pesticide residue;
      iv. Washing or showering with soap and water, shampooing hair, and putting on clean clothing after work;
      v. Washing work clothes separately from other clothes before wearing; and
      vi. Washing immediately in the nearest clean water if pesticides are spilled or sprayed on the body, and as soon as possible, showering, shampooing, and changing into clean clothes.
2. The agricultural employer shall document compliance by obtaining the employee's signature or other verifiable means to acknowledge the employee's receipt of the information required in subsection (C)(1).

D. Pesticide safety training. The agricultural employer or handler employer shall ensure that pesticide safety training is provided before the sixth day of entry into a pesticide-treated area. The pesticide safety training program shall be in a language easily understood by a worker or handler, using a translator if necessary. The program shall relate solely to pesticide safety training. Information shall be presented either orally from written material or in an audiovisual manner and shall contain nontechnical terms. The trainer shall respond to questions from attendees.

1. General pesticide safety training. The following pesticide safety training shall be presented to either a handler or a worker:
   a. Hazards of pesticides resulting from toxicity and exposure, including acute and chronic effects, delayed effects, and increased sensitivity;
   b. Routes by which pesticides can enter the body;
   c. Signs and symptoms of common types of pesticide poisoning;
   d. Emergency first aid for pesticide injuries or poisonings;
   e. How to obtain emergency medical care;
   f. Routine and emergency body decontamination procedures, including emergency eyeflushing techniques;
   g. Warnings about taking pesticides or pesticide containers home; and
   h. How to report violations to the Department, including providing the Department's toll-free pesticide hotline telephone number.
2. Worker training. In addition to the information in subsection (D)(1), a pesticide safety training program for a worker shall include the following:
   a. Where and in what form pesticides may be encountered during work activities;
   b. Hazards from chemigation and drift;
   c. Hazards from pesticide residue on clothing; and
   d. Requirements of this Article designed to reduce the risks of illness or injury resulting from workers' occupational exposure to pesticides, including:
      i. Application and entry restrictions,
      ii. Posting of warning signs,
      iii. Oral warning,
      iv. The availability of specific information about applications,
      v. Protection against retaliatory acts, and
      vi. The design of the following warning sign:

3. Handler training. In addition to the information in subsection (D)(1), a pesticide safety training program for a handler shall include the following:
   a. Format and meaning of information contained on pesticide labels and in labeling, including safety information such as precautionary statements about human health hazards;
   b. Need for and appropriate use of personal protective equipment;
   c. Prevention, recognition, and first aid treatment of heat-related illness;
   d. Safety requirements of handling, transporting, storing, and disposing of pesticides, including general procedures for spill cleanup;
   e. Environmental concerns such as drift, runoff, and potential impact on wildlife; and
   f. Requirements of this Article applicable to handler employers for the protection of handlers and other individuals, including:
      i. The prohibition against applying pesticides in a manner that will cause contact with workers or other individuals,
      ii. The requirement to use personal protective equipment,

iii. The provisions for training and decontamination, and
iv. Protection against retaliatory acts.

4. The trainer shall issue an EPA-approved Worker Protection Standard training verification card to each handler or worker who successfully completes training, and shall maintain a record in indelible ink containing the following information:
   a. Name and signature of the trained worker or handler;
   b. Training verification card number;
   c. Issue and expiration date of the training verification card;
   d. Social security number or a unique trainer-assigned identification number of the worker or handler;
   e. Name and signature of the trainer; and
   f. Address or location of where the training occurred, including city, county, and state.

E. Trainer requirements.
1. A person applying for pesticide safety trainer certification shall:
   a. Complete the Department pesticide safety training program established in subsection (D)(1) through (D)(3); or
   b. Hold a current PCA license or restricted use certification, issued by the Department for a PCA or certified applicator, as prescribed under R3-3-207 or R3-3-208.
2. An applicant shall submit a signed and dated affidavit to the Department verifying that each worker or handler will be trained according to the requirements of subsection (D). The affidavit shall include the applicant's:
   a. Name, address, e-mail address, and telephone and fax numbers, as applicable; and
   b. Social security number.
3. Trainer certification is:
   a. Nontransferable; and
   b. Is valid for three years from the date issued under subsection (E)(1)(a), excluding the month in which the trainer was certified, and is renewable upon completion of the Department pesticide safety training program established in subsection (D)(1) through (D)(3); or
   c. Is valid initially for one year from the date issued under subsection (E)(1)(b) if the PCA license or restricted use certification remain current, and is renewable for three years upon completion of the pesticide safety training program established in subsection (D)(1) through (D)(3).
4. A trainer shall maintain the records required in subsection (D)(4) for five years for workers, and three years for handlers, excluding the month in which the verification card was issued.
5. Upon request by the Department, the trainer shall make available worker and handler records prescribed in subsection (D)(4) for inspection and copying by the Department.

F. A trainer shall permit the Assistant Director or designee to enter a place where worker safety training is being presented to observe and question trainers and attendees to determine compliance with the requirements of this Section.

G. The Department may suspend, revoke, or deny trainer certification if any of the following occur:
1. Failing to follow the worker and handler training requirements prescribed in subsections (D)(1) through (D)(3);
2. Failing to issue training verification cards to workers and handlers as prescribed in subsection (D)(4);
3. Failing to maintain the training information prescribed in subsection (E)(4);
4. Failing to fulfill the requirements of the affidavit as prescribed in subsection (E)(2); or
5. Having had a similar certification revoked, suspended, or denied in any jurisdiction within the last three years.

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1003 renumbered from R3-8-203 (Supp. 91-4). R3-3-1003 repealed; new Section R3-3-1003 renumbered from R3-3-1002 and amended effective October 8, 1998 (Supp. 98-4). Amended by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

R3-3-1004. Notification Requirements for Farm Labor Contractors

A. The owner or operator of an agricultural establishment shall provide the farm labor contractor who performs work on that agricultural establishment with:
1. The location of the agricultural establishment's central posting site; and
2. The restrictions on entering the treated area as specified in 40 CFR 170.120(d), if a treated area is within 1/4 mile of where workers will be working and the treated area is not posted as allowed or required in 40 CFR 170.120(a), (b) and (c).

B. The farm labor contractor shall:
1. Post or provide the worker in writing, with the information in 40 CFR 170.122, or shall post or provide the worker in writing, the specific location of the central posting site for each agricultural establishment on which the worker will be working;
2. Provide the worker with restrictions on entering a treated area as specified in 40 CFR 170.120(d) if the treated area on the agricultural establishment where a worker will be working is within 1/4 mile of where the worker is working, and the treated area and is not posted as allowed or required in 40 CFR 170.120(a), (b) and (c).

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1004 renumbered from R3-8-204 (Supp. 91-4). Amended effective October 8, 1998 (Supp. 98-4).

R3-3-1005. Container Used For Mixing or Applying Pesticides

A. All openings on containers used for applying pesticides shall be equipped with covers that prevent splashes and spills.

B. All containers shall:
1. Be translucent, or
2. Have a means to indicate externally the internal liquid level in the container, or
3. Have a filler hose nozzle that automatically stops the filling operation before the liquid pesticide mixture spills over the top of the container.

C. Any employer who mixes or applies any liquid pesticide mixture in a container with a capacity of more than 49 gallons shall have a handler present whenever pesticides are mixed or containers are filled to ensure that the liquid pesticide mixture does not spill over the top of the container.

D. Each handler, while mixing pesticides, shall protect the water supply from back-siphoning pesticide mixtures.

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1005 renumbered from R3-8-205 (Supp. 91-4).

Section repealed; new Section adopted effective October 8, 1998 (Supp. 98-4).

R3-3-1006. Agricultural Emergency

A. Any grower, a group of growers, or designee may request the Assistant Director for an agricultural emergency.

B. Possibility of agricultural emergency.

1. If during business hours information is obtained showing that a declaration of an agricultural emergency is necessary, the requesting party shall notify the Department immediately and provide the following information:
   a. The cause of the emergency,
   b. The area where the emergency may occur,
   c. An explanation of why early entry is necessary,
   d. Why other methods cannot be used to avoid the early entry, and
   e. The justification that substantial economic loss will occur.
2. The Assistant Director shall render a decision to the requesting party on whether an agricultural emergency exists within four hours of receiving the information.
3. If a grower or requesting party does not submit the written documentation in subsection (B)(1) or if the Assistant Director questions the validity or adequacy of the written evidence of the emergency, the Assistant Director shall investigate a grower's entry into the restricted-entry interval area and advise the requesting party of the reasons for the denial of the agricultural emergency.
4. If the information in subsection (B)(1) is given orally, the requesting party shall notify the Department immediately and provide the Assistant Director with written evidence of the emergency within five days. The Assistant Director shall, within 10 business days of receipt of the written evidence of the emergency or completion of the investigation, issue a letter to the requesting party confirming or denying the request for an agricultural emergency.

C. Occurrence of agricultural emergency.

1. If information is obtained after business hours, or during a weekend or holiday, showing that a declaration of agricultural emergency is necessary, the requesting party shall inform the Department, orally, the next business day following the emergency and provide the following information, in writing, within 72 hours of the emergency or notification:
   a. The cause of the emergency,
   b. The area where the emergency occurred,
   c. A brief explanation of why early entry was necessary,
   d. Why other methods could not be used to avoid the early entry, and
   e. The justification that substantial economic loss would have occurred.
2. If a grower or requesting party does not submit the written evidence of the emergency in subsection (B)(1) or if the Assistant Director questions whether the written evidence of emergency could have occurred before the emergency, or the validity or adequacy of the written evidence of the emergency, the Assistant Director shall investigate a grower's entry into the restricted-entry interval area and advise the requesting party of the reasons for the denial.
3. The Assistant Director shall within 10 business days of receipt of the evidence of emergency or completion of the investigation issue a letter to the requesting party confirming or denying the request for the agricultural emergency.

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1006 renumbered from R3-8-206 (Supp. 91-4). Section repealed; new Section adopted effective October 8, 1998 (Supp. 98-4).

R3-3-1007. Violations and Civil Penalties

A. Serious violations. The base penalty for any serious violation is $500 and no adjustment shall be made for mitigating circumstances. The penalty for a violation in which a person is killed or permanently disabled shall be the maximum allowed in A.R.S. §§ 3-3113 and 3-3114.

B. Nonserious violations. The Assistant Director shall calculate the base penalty for a nonserious violation and determine the civil penalty amount based on the factors prescribed in A.R.S. § 3-3113(I). If there are contributing or mitigating circumstances, the points may be adjusted, provided the adjustment is documented.

VIOLATION GRAVITY FACTOR
(1 - lowest; 4 - highest)

VIOLATION	GRAVITY
Central Posting	1 - 2
Training	1 - 4
Decontamination	1 - 4
Personal Protective Equipment	1 - 4
Pesticide Applications and Notice	1 - 4
Pesticide Application Restrictions	2 - 4
Other Requirements	1 - 4

C. Size-of-business. The Assistant Director shall use:

1. The maximum number of employees at any one time during the previous 12 months from the date of notice, including only the Arizona branch offices to determine the size business category; or
2. A site-specific employee count, if the violation does not endanger employees at other locations of the business; or
3. The number of persons trained by a trainer during the previous 12 months that violate the training provisions of this Section.

SIZE-OF-BUSINESS

Size Category	Number of Employees or Number of People Trained
I	1-10
II	11-75
III	76-150
IV	More than 150

D. Base penalty. The Assistant Director shall calculate the base penalty for the alleged violation by using the violation gravity factor established in subsection (B) and applying the size-of-business category established in subsection (C).

BASE PENALTY

Gravity	Size Category			
Factor	I	II	III	IV
1	$250	$300	$350	$400
2	300	350	400	450
3	350	400	450	500
4	500	500	500	500

E. Combined or group violations. The Assistant Director may combine or group violations.

1. Violations may be combined and assessed one penalty if the violation does not cause any immediate danger to public health or safety or damage to property. Example: Eight workers on a harvest crew have received no training and there is no evidence of exposure. This situation may result in only one training penalty being assessed against the employer.
2. Violations may be grouped if they have a common element and it is apparent which violation has the highest

gravity. The penalty for a grouped violation is assessed on the violation with the highest gravity. The penalty for a grouped violation is assessed pursuant to the appropriate law or rule with the highest gravity. Example: Two crews from the same company are engaged in an improper handling activity and one crew is using a pesticide with a "danger" signal word, (skull and cross bones) while the other crew is using a pesticide with a "warning" signal word. This situation may result in the employer being assessed one penalty based on the penalty for the "danger" (skull and cross bones) violation.

F. If a decision is not reached in a negotiated settlement, the Director may assess a penalty pursuant to A.R.S. § 3-3114.

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1007 renumbered from R3-8-207 (Supp. 91-4). Section repealed; new Section adopted effective October 8, 1998 (Supp. 98-4).

R3-3-1008. Penalty Adjustments

A. The Assistant Director shall assign an appropriate number of points for each of the following five factors to increase the base penalty for a serious violation, or increase or decrease the base penalty for a nonserious violation.

1. If the total adjustment points on a nonserious violation is less than 9, the base penalty is reduced; if it is more than 9, the base penalty is increased.
2. If the total adjustment points on a serious violation is 3 or less, the base penalty shall be imposed; if it is more than 3, the base penalty is increased.
3. If a violation is a repeated violation, as prescribed in R3-3-1011 for compliance history, a base penalty adjustment factor shall not be used in assessing a penalty.

BASE ADJUSTMENT FACTORS

Pesticide	
Signal word danger with skull and crossbones	5
Signal word danger	4
Warning	3
Caution	2
Indirect relation to the violation	1
Harm to Human Health	
Actual Injuries or temporary reversible illness resulting in hospitalization or a variable but limited period of disability. (hospital care greater than 8 hours)	9
Actual (doctor care required, less than 8 hours)	6
Minor supportive care only	2 - 4
Consequence potential	1 - 2
No relationship found	0
Compliance History	
One or more violations in the previous 12 months	4
One or more violations in the previous 24 months	3
One or more violations in the previous 36 months	1
No violation history	0
Culpability	
Knowing or should have known	4
Negligence	2
Neither	0
Good Faith	0 - –2

B. The Assistant Director may reduce the base penalty for a nonserious violation, as determined in R3-3-1007(C), by as much as 80% depending upon the number of employees or trained persons, good faith, and history of previous violations.

FINAL PENALTY CALCULATION

Number of Points	**Nonserious Violation Penalty Adjustment**	**Serious Violation Penalty Adjustment**
3 or below	Base –80%	Base Penalty
4	Base –65%	Base + 10%
5	Base –50%	Base + 20%
6	Base –35%	Base + 30%
7	Base –20%	Base + 40%
8	Base –5%	Base + 50%
9	Base Penalty	Base + 60%
10	Base + 20%	Base + 70%
11	Base + 35%	Base + 80%
12	Base + 50%	Base + 90%
13	Base + 65%	Base + 100%
14	Base + 80%	Base + 100%
15 or more	Base + 100%	Base + 100%

Example: A business employs 26 people in Town A and 14 people in Town B. In addition, 35 seasonal people are employed during the harvest. The total annual employee positions equal 75. The following violations are found during an inspection: (1) No training for 35 seasonal workers on the harvest crew; (2) No available decontamination supplies; (3) No safety poster at the central posting location; (4) No emergency telephone number posted, and no medical facility location posted at the central posting location; (5) No posted pesticide application information at the central posting location.

Step 1. Use the *Violation Gravity Factor* table to determine the gravity of the violation.

(1) Training, 1-4	2 points, all 35 workers are combined;
(2) Decontamination, 1-4	3 points, no supplies were available within the prescribed distance and it has been 25 days since the most recent application;
(3) - (5) Central Posting, 1-2	1 point, since the violations concerns the same factor, they are combined.(There is evidence that the old poster blew away and the pesticide application information is kept available in the secretary's desk, but it is not 'readily' available.)

Step 2. Use the *Size of Business* table to determine the size category.

75 employees falls into the size category II;

Step 3. Use the *Base Penalty* table to determine the base penalty. Use column II based on the *Size of Business* determination from step 2.

Violation 1, with a gravity factor of 2, equals a base penalty of $350;

Violation 2, with a gravity factor of 3, equals a base penalty of $400;
Violations 3, 4, and 5, with a gravity factor of 1, equals 1 base penalty of $300.

Step 4. Using the *Base Adjustment Factors* table to calculate the adjustments, if any. In this case, the base adjustments are uniform in all categories except #4, culpability.

Pesticide. It was a indirect relationship because of the timing of the application and when the workers were in the treated area. 1 point.
Harm to Human Health. There was no harm to health and the pesticide had not been applied recently. 1 point.
Compliance History. This farm has no previous violation history. 0 points.
Culpability. The supervisor attended a "train-the-trainer" course two years ago and should have been aware of the requirements of the worker protection standard. Therefore, for the first two violations the supervisor should have known about the requirements. For the last three violations, the central posting sight was not checked frequently enough to ensure compliance. For violations 1 and 2, 4 points for knowing or should have known; For violations 3, 4, and 5, 2 points for negligence.
Good Faith. The inspector came back five days later and the workers were trained the day of the first inspection, the poster was posted and everything was in compliance. Since the employer corrected the violations quickly. –1 point.

Step 5. Add the points for each violation from Step 4.

Violation 1	1 + 1 + 0 + 4 + –1 = 5
Violation 2	1 + 1 + 0 + 4 + –1 = 5
Violations 3, 4, 5	1 + 1 + 0 + 2 + –1 = 3

Step 6. Using the *Final Penalty Calculation* table to determine the appropriate violation penalty adjustment that corresponds with the base adjustment factor point total. Use the definitions for nonserious or serious violations to determine the appropriate violation penalty adjustment column. In this case, use the nonserious penalty adjustment column.

Violation 1 5 points Base - 50% = 350-175 = $175
Violation 2 5 pointsBase - 50% = 400-200 = $200
Violations
3, 4, 53 pointsBase - 80% = 300-240 = $60
Adjusted Penalty Total $435

Historical Note

Adopted effective July 13, 1989 (Supp. 89-3). Section R3-3-1008 renumbered from R3-8-208 (Supp. 91-4). Section repealed; new Section adopted effective October 8, 1998 (Supp. 98-4).

R3-3-1009. Failure to Abate

A. The Director shall issue a notification of failure-to-abate an alleged violation if a violation has not been corrected as specified on the citation. Failure-to-abate penalties, pursuant to A.R.S. § 3-3113(E), shall be applied if an employer or handler has not corrected a previous cited violation that is a final order of the Director. When determining the appropriate penalty amount, the Director shall take into consideration a good faith effort to abate the violation.

B. If a person does not file a timely notice of contest within the 30-day contest period, the citation and proposed penalties shall be a final order of the Director.

C. If a person files a notice of contest pursuant to A.R.S. § 3-3116(A), the period for the abatement shall not begin, as to those violations contested, until the day following the entry of the final order by the Director affirming the citation. If the person contests only the amount of the proposed penalty, the person shall correct the alleged violation within the prescribed abatement period.

Historical Note

Adopted effective October 8, 1998 (Supp. 98-4). Section heading corrected at request of the Department, Office File No. M11-60, filed February 23, 2011 (Supp. 09-4).

R3-3-1010. Calculation of Additional Penalties For Unabated Violations

A. The Assistant Director shall calculate a daily penalty for unabated violations if failure to abate a serious or nonserious violation exists at the time of reinspection. That penalty shall not be less than the penalty for the violation when cited, except as provided in subsection (C).

1. If no penalty was initially proposed, the Assistant Director shall determine a penalty. In no case shall the penalty be more than $1,000 per day, the maximum allowed by A.R.S. § 3-3113(E).
2. The daily proposed penalty shall be multiplied by the number of calendar days that the violation has continued unabated, except for the following: The number of days unabated shall be counted from the day following the abatement date specified in the final order. It shall include all calendar days between that date and the date of reinspection, excluding the date of reinspection.

B. When calculating the additional daily penalty, the Assistant Director shall consider the extent that the violation has been abated, whether the employer has made a good faith effort to correct the violation, and it is beyond the employer's control to abate. Based on these factors, the Assistant Director may reduce or eliminate the daily penalty. Example: If three of five instances have been corrected, the daily proposed penalty (calculated as outlined in subsection (A) without regard to any partial abatement), may be reduced by the percentage of the total violations which have been corrected, in this instance, three of five, or 60%.

Historical Note

Adopted effective October 8, 1998 (Supp. 98-4).

R3-3-1011. Repeated or Willful Violations

A. The Assistant Director shall calculate a penalty for each violation classified as serious or nonserious if similar violations are repeated within the last three years from the date of notice.

1. The penalty for a repeated nonserious violation shall be doubled for the first repeated violation and tripled if the violation has been cited twice before, up to the maximum allowed by A.R.S. § 3-3113(A).
2. The penalty for a repeated serious violation shall be multiplied five times for the first repeated violation and seven times if the violation has been cited twice before, up to the maximum allowed by A.R.S. § 3-3113(A).
3. The penalty for a repeated serious violation in which someone is disabled or killed shall be multiplied 10 times for each repeated violation, up to the maximum allowed by A.R.S. § 3-3113(A).
4. A repeated violation having no initial penalty shall be assessed for the first repeated violation as determined by this Article.

5. If the Assistant Director determines, through documentation, that it is appropriate, the penalty may be multiplied by 10, up to the maximum allowed by A.R.S. § 3-3113(A).

B. The Assistant Director may adjust the gravity based penalty by a multiplier up to 10 for any willful violation, up to the maximum allowed by A.R.S. § 3-3113(A).

C. The Assistant Director shall not allow a reduction for any serious or nonserious willfully repeated violation.

Historical Note
Adopted effective October 8, 1998 (Supp. 98-4).

R3-3-1012. Citation; Posting
An employer shall post a citation prescribed at A.R.S. § 3-3110(C) for three days or until the violation is abated, whichever time period is longer.

Historical Note
New Section made by final rulemaking at 10 A.A.R. 276, effective March 6, 2004 (Supp. 04-1).

ARTICLE 11. ARIZONA NATIVE PLANTS

R3-3-1101. Definitions
In addition to the definitions in A.R.S. § 3-901, the following terms apply to this Article:

"Agent" means a person authorized to manage, represent, and act for a landowner.
"Certificate of inspection for interstate shipments" means a certificate to transport protected native plants out of the state.
"Conservation" means prevention of exploitation, destruction, or neglect of native plants while helping to ensure continued public use.
"Cord" means a specific type string or small rope issued by the Department for attaching tags and seals to protected native plants.
"Cord of wood" means a measurement of firewood equal to 128 cubic feet.
"Department" means the Arizona Department of Agriculture.
"Destroy" means to cause the death of any protected native plant.
"Harvest restricted native plant permit" means a permit required to remove the by-products, fibers, or wood from a native plant listed in Appendix A, subsection (D).
"Landowner" means a person who holds title to a parcel of land.
"Noncommercial salvage permit" means a permit required for the noncommercial salvage of a highly safeguarded native plant.
"Original growing site" means a place where a plant is growing wild and is rooted to the ground or any property owned by the same landowner where a protected native plant is relocated or transplanted without an original transportation permit.
"Permittee" means any person who is issued a permit by the Department for removing and transporting protected native plants.
"Protected native plant" means any living plant or plant part listed in Appendix A and growing wild in Arizona.
"Protected native plant tag" means a tag issued by the Department to identify the lawful removal of a protected native plant, other than a saguaro cactus, from its original growing site.
"Saguaro tag" means a tag issued by the Department to identify a saguaro cactus being lawfully moved.
"Salvage assessed native plant permit" means a permit required to remove a native plant listed in Appendix A, subsection (C).
"Salvage restricted native plant permit" means a permit required to remove a native plant listed in Appendix A, subsection (B).
"Scientific permit" means a permit required to remove a native plant for a controlled experimental project by a qualified person.
"Securely tie" means to fasten in a tight and secure manner to prevent the removal of tags, seals, or cord for reuse.
"Small Native Plant" means any protected plant eight inches in height or less.
"Survey" means the process by which a parcel of land is examined for the presence of protected native plants. A simple survey determines only whether protected native plants are present. A complete survey establishes the kind and number of each species present.
"Wood receipt" means a receipt issued by the Department to identify the lawful removal of a protected native plant harvested for fuel, being removed from its original growing site.

Historical Note
New Section recodified from R3-4-601 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1102. Protected Native Plant Destruction by a Private Landowner

A. Notice of intent.
1. Before a protected native plant is destroyed, the private landowner shall provide the following information to the Department on a form obtained from the Department:
   a. Name, address, and telephone number of the landowner;
   b. Name, address, and telephone number of the landowner's agent, if applicable;
   c. Valid documentation indicating land ownership, including but not limited to a parcel identification number, tax assessment, or deed;
   d. Legal description, map, address, or other description of the area, including the number of acres to be cleared, in which the protected native plants subject to the destruction are located;
   e. Earliest date of plant destruction; and
   f. Landowner's intent for the disposal or salvage of protected native plants on the land.
2. A landowner intending to destroy protected native plants on an area of less than one acre may submit the information required in subsection (A)(1) to the Department verbally.

B. A landowner shall not destroy a protected native plant until:
1. The landowner receives a written confirmation notice from the Department, and
2. Notice is given to the Department within the following minimum time periods:
   a. Twenty days before the plants are destroyed over an area of less than one acre.
   b. Thirty days before the plants are destroyed over an area of one acre or more but less than 40 acres.
   c. Sixty days before the plants are destroyed over an area of 40 acres or more.

C. The Department shall provide a salvage operator or other interested person with a copy of a notice of intent submitted

under this Section upon receipt of the private landowner's name, address, telephone number, and payment of an annual $25 nonrefundable fee.

Historical Note

New Section recodified from R3-4-602 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1103. Disposal and Salvage of Protected Native Plants by a State Agency

A. A state agency intending to remove or destroy protected native plants shall notify the Department, under A.R.S. § 3-905, and shall propose a method of disposal from the following list:
1. The plants may be sold at a public auction;
2. The plants may be relocated or transported to a different location on the same property or to another property owned by the state, without obtaining a permit;
3. The plants may be donated to nonprofit organizations as provided in A.R.S. § 3-916;
4. The plants may be donated to another state agency or political subdivision, without obtaining a permit; or
5. The plants may be salvaged or harvested by a member of the general public or a commercial dealer, if the person holds a permit as provided under A.R.S. § 3-906 or 3-907.

B. If the plants are highly safeguarded native plants, they shall first be made available to the holder of a scientific permit or a noncommercial salvage permit.

Historical Note

New Section recodified from R3-4-603 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1104. Protected Native Plant Permits; Tags; Seals; Fees

A. A person shall not collect, transport, possess, sell, offer for sale, dispose, or salvage protected native plants unless that person is 18 years of age or older and possesses an appropriate permit.

B. An applicant shall submit the following information to the Department on a form obtained from the Department, as applicable:
1. Name, business name, address, telephone number, Social Security number or tax identification number, and signature of the applicant;
2. Name and number of plants to be removed;
3. Purpose of the plant removal;
4. Whether the applicant has a conviction for a violation of a state or federal statute regarding the protection of native plants within the previous five years;
5. Except for salvage assessed native plants;
   a. Name, address, telephone number, and signature of the landowner;
   b. Location of the permitted site and size of acreage;
   c. Destination address where the plants will be transplanted;
   d. Legal and physical description of the location of the original growing site; and
   e. Parcel identification number for the permitted site or other documents proving land ownership.

C. Permit fees.
1. A person removing and transporting protected native plants shall submit the following applicable fee to the Department with the permit application:
   a. Salvage assessed native plant permit, annual use, $35;
   b. Harvest restricted native plant permit, annual use, $35;
   c. All other native plant permits, one-time use, $7;
   d. Certificate of inspection for interstate shipments, $15.
2. Exemptions. Protected native plants are exempt from fees if:
   a. The protected native plants intended for personal use by a landowner are taken from one piece of land owned by the landowner to another piece of land also owned by the landowner, remain on the property of the landowner, and are not sold or offered for sale;
   b. The protected native plants are collected for scientific purposes; or
   c. A landowner donates the protected native plant to a scientific, educational, or charitable institution.

D. Tag and harvesting fees.
1. Any person obtaining a saguaro tag or other protected native plant tag or receipt shall submit the following applicable fee to the Department at the time a tag is obtained:
   a. Saguaro, $8 per plant;
   b. Trees cut for firewood and listed in the harvest restricted category, $6 per cord of wood;
   c. Small native plant, $.50 per plant;
   d. Any other protected native plant referenced in A.R.S. § 3-903(B) and (C) and listed in Appendix A, $6 per plant.
2. The fee for harvesting *nolina* or *yucca* parts is $6 per ton. Payment shall be made to the Department in the following manner:
   a. Unprocessed nolina or yucca fiber shall be weighed on a state-certified bonded scale; and
   b. The harvester shall submit payment and weight certificates to the Department no later than the tenth day of the month following each harvest.

E. Seal fees. A person obtaining a seal shall submit a $.15 per plant fee to the Department at the time a seal is obtained.

F. Salvage assessed native plant permits and plant tags are valid for the calendar year in which they are issued. The tags expire at the end of the calendar year unless the permit is renewed.

Historical Note

New Section recodified from R3-4-604 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1105. Scientific Permits; Noncommercial Salvage Permits

A. Scientific Permit
1. A person shall not collect any highly safeguarded or other protected native plants for a research project unless that person holds a scientific permit.
2. An applicant shall submit the following information to the Department on a form obtained from the Department:
   a. Name, address, and telephone number of the company or research facility applying for the permit;
   b. Name, title and experience of the person conducting the research project;
   c. Purpose and intent of the research project;
   d. Controls to be used;
   e. Variables to be considered;
   f. Time-frame for the project;

g. Anticipated results and plans for publication;
h. Reports and recordkeeping that will be used to monitor the project;
i. Project funding source;
j. Funding of the company or research facility;
k. Written authorization from the landowner for collection of the plants;
l. Date of the application;
m. Signed affirmation by the applicant that the plants collected will not be sold or used for personal interests; and
n. Tax identification number, or if applicant is an individual, a Social Security number.

3. A scientific permit shall be issued if the applicant provides documentation that demonstrates the following:
   a. A plan, pre-approved by the landowner, to restore the removal site to a natural appearance;
   b. The removal and movement of the native plants shall be accomplished by a person experienced in native plant removal and transplantation;
   c. The native plants used in the project shall remain accessible to the Department;
   d. The ecology of the project site is beneficial to the growth of the specific plants in the project if practical;
   e. Arrangements exist for a suitable permanent planting site for the surviving plants after the project's completion; and
   f. Description of plant disposition and research hypothesis.
4. A scientific permit is valid for the calendar year in which it is issued.

B. Noncommercial salvage permit:
1. Highly safeguarded native plants may only be collected for conservation by a person holding a noncommercial salvage permit.
2. An applicant shall submit the following information to the Department, on a form obtained from the Department:
   a. Name, address, and telephone number of the applicant applying for the permit;
   b. Proposed relocation site for the plants;
   c. Written authorization from the landowner for collection of the plants;
   d. Date of the application; and
   e. Signed affirmation by the applicant that the plants collected will not be sold or used for personal interests.
3. A noncommercial salvage permit shall be issued if all of the following conditions are met through documentation provided to the Department:
   a. The native plants used in the project shall be accessible to the Department after transplant, and
   b. The relocation site is beneficial to the growth of the specific plants in the project.
4. A noncommercial salvage permit is valid only for the transportation and the transplantation of the particular native plant.

Historical Note

New Section recodified from R3-4-605 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1106. Protected Native Plant Survey; Fee

A. Upon request, the Department may conduct a native plant survey. Upon completion, the Department shall notify the individual who made the request of:
1. The date the survey was performed;
2. The amount of the survey fee payable to the Department;
3. The name of Department personnel performing the survey;
4. Upon payment, the survey results including the names and numbers of protected native plants.

B. A person who requests a native plant survey shall pay the survey fee to the Department within 30 days from the date of the notification. The survey fee shall be based on time and travel expenses, except that no fee shall be charged for a determination of whether protected species exist on the land.

Historical Note

New Section recodified from R3-4-606 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1107. Movement Permits; Tags, Seals, and Cord Use

A. Any person moving a protected native plant, except a saguaro cactus, previously transplanted from its original growing site in Arizona and transplanting it to another location shall apply to the Department for a Movement Permit. The landowner from where the plant is being moved shall provide the following information on the permit application:
1. The name, telephone number, and signature of the landowner;
2. The location of the plant;
3. The name, address, and telephone number of the receiver;
4. The name, address, and telephone number of the carrier;
5. The number, species, and description of the plant being removed;
6. The tax parcel identification number; and
7. The date of the application.

B. Any person moving a saguaro cactus over four feet tall previously transplanted from its original growing site in Arizona and transplanting it to another location shall apply to the Department for a Movement Permit. The landowner from where the saguaro cactus is being moved shall provide the following information on the permit application, unless the applicant maintains a record of the original permit or verifies the Department has a record of a previous legal movement of the cactus by the applicant.
1. The name, telephone number, and signature of the landowner;
2. The address where the saguaro cactus is located;
3. The name, address, and telephone number of the receiver;
4. The name, address, and telephone number of the carrier;
5. The number, species, and description of the plant being removed;
6. The tax parcel identification number of the property where the saguaro cactus is being moved; and
7. The date of the application.

C. Movement of protected native plants obtained outside Arizona.
1. Any person moving a protected native plant obtained outside Arizona and transporting and planting it within the state shall declare the protected native plant at the agricultural inspection station nearest the port of entry. The Department shall place the protected native plant under "Warning Hold" to the nearest permitting office.
2. If an agricultural station is not in operation at the port of entry, the person shall declare the protected native plant

at the nearest permitting office during normal office hours.

3. After the plants have been declared, the permitting office shall issue a Movement Permit and seal.

D. Any person moving protected native plants shall obtain the following seals from the Department and securely attach the appropriate seal to each protected native plant:

1. Protected native plant seals identify protected native plants, except saguaro cacti, that will be moved from locations that are not the original growing sites.
2. Imported seals identify all imported protected native plants.

E. Tag, seal, and cord attachment.

1. A permittee shall attach a tag to each protected native plant taken from its original growing site, using cord provided by the Department, before transport. No other type of rope, string, twine, or wire is allowed.
2. The cord shall be securely tied around the plant, and the tag attached so that it cannot be removed without breaking the seal or cutting the cord.
3. The tag shall be placed directly over the knot in the cord and the ends pressed firmly together sealing the knot so that it cannot be removed for reuse.
4. The protected native plant seal shall be placed directly over the knot and snapped firmly closed, sealing the knot.
5. The imported seal shall be attached directly to the plant.
6. Upon loading the plant, every effort shall be made to allow visibility of the tag during transport.

Historical Note

New Section recodified from R3-4-607 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1108. Recordkeeping; Salvage Assessed and Harvest Restricted Native Plants

A. Salvage Assessed Native Plants.

1. A permittee shall maintain a record of each protected native plant removed under an annual permit for two years from the date of each transaction and allow Department inspection of the records during normal business hours. The transaction record shall include the date salvage restricted protected native plants were removed and the permit and tag numbers.
2. Annually, by January 31, a permittee shall submit to the Department a copy of each transaction record for the prior calendar year.

B. Harvest Restricted Native Plants. A permittee shall submit to the Department by the tenth day of each month the transaction records for the previous month, or a written statement that no transactions were conducted for that month.

Historical Note

New Section recodified from R3-4-608 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1109. Arizona Native Plant Law Education

A. The Department may schedule seminars and training courses on an as-needed basis.

B. In addition to the following fees, charges for printed materials or pamphlets shall be assessed based upon printing and mailing costs:

1. A person attending a seminar or training course on Arizona native plant law shall pay a nonrefundable fee of $10 to the Department before attending the class.
2. A person convicted of violating Arizona native plant laws and ordered by a court to attend a native plant educational class shall pay a nonrefundable fee of $25 to the Department before attending the class. The Department shall provide written confirmation of satisfactory completion to a person ordered by a court to attend a class.

Historical Note

New Section recodified from R3-4-609 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1110. Permit Denial

Upon notice of denial of a permit, an applicant may request, in writing, that the Department provide an administrative hearing under A.R.S. Title 41, Chapter 6, Article 10, to appeal the denial.

Historical Note

New Section recodified from R3-4-610 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

R3-3-1111. Repealed

Historical Note

New Section recodified from R3-4-611 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Repealed by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

Appendix A. Protected Native Plants by Category

A. Highly safeguarded native plants as prescribed in A.R.S. § 3-903(B)(1), for which removal is not allowed except as provided in R3-3-1105:

AGAVACEAE Agave Family

Agave arizonica Gentry & Weber–Arizona agave

Agave delamateri Hodgson & Slauson

Agave murpheyi Gibson–Hohokam agave

Agave parviflora Torr.–Santa Cruz striped agave, Small-flowered agave

Agave phillipsiana Hodgson

Agave schottii Engelm. var. *treleasei* (Toumey) Kearney & Peebles

APIACEAE Parsley Family. [= Umbelliferae]

Lilaeopsis schaffneriana (Schlecht.) Coult. & Rose ssp. *recurva* (A. W. Hill) Affolter–Cienega false rush, Huachuca water umbel.
Syn.: *Lilaeopsis recurva* A. W. Hill

APOCYNACEAE Dogbane Family

Amsonia kearneyana Woods.–Kearney's bluestar

Cycladenia humilis Benth. var. *jonesii* (Eastw.) Welsh & Atwood–Jones' cycladenia

ASCLEPIADACEAE Milkweed Family

Asclepias welshii N. & P. Holmgren–Welsh's milkweed

ASTERACEAE Sunflower Family [= Compositae]

Erigeron lemmonii Gray–Lemmon fleabane

Erigeron rhizomatus Cronquist–Zuni fleabane

Senecio franciscanus Greene–San Francisco Peaks groundsel

Senecio huachucanus Gray–Huachuca groundsel

BURSERACEAE Torch Wood Family
Bursera fagaroides (H.B.K.) Engler–Fragrant bursera

CACTACEAE Cactus Family
Carnegiea gigantea (Engelm.) Britt. & Rose–Saguaro: 'Crested' or 'Fan-top' form
Syn.: *Cereus giganteus* Engelm.

Coryphantha recurvata (Engelm.) Britt. & Rose–Golden-chested beehive cactus
Syn.: *Mammillaria recurvata* Engelm.

Coryphantha robbinsorum (W. H. Earle) A. Zimmerman–Cochise pincushion cactus, Robbin's cory cactus.
Syn.: *Cochiseia robbinsorum* W.H. Earle

Coryphantha scheeri (Kuntze) L. Benson var. *robustispina* (Schott) L. Benson–Scheer's strong-spined cory cactus.
Syn.: *Mammillaria robustispina* Schott

Echinocactus horizonthalonius Lemaire var. *nicholii* L. Benson–Nichol's Turk's head cactus

Echinocereus triglochidiatus Engelm. var. *arizonicus* (Rose ex Orcutt) L. Benson–Arizona hedgehog cactus

Echinomastus erectocentrus (Coult.) Britt. & Rose var. *acunensis* (W.T. Marshall) L.Benson–Acuna cactus
Syn.: *Neolloydia erectocentra* (Coult.) L. Benson var. *acunensis* (W. T. Marshall) L. Benson

Pediocactus bradyi L. Benson–Brady's pincushion cactus

Pediocactus paradinei B. W. Benson–Paradine plains cactus

Pediocactus peeblesianus (Croizat) L. Benson var. *fickeiseniae* L. Benson

Pediocactus peeblesianus (Croizat) L. Benson var. *peeblesianus* Peebles' Navajo cactus, Navajo plains cactus
Syn.: *Navajoa peeblesiana* Croizat

Pediocactus sileri (Engelm.) L. Benson–Siler pincushion cactus
Syn.: *Utahia sileri* (Engelm.) Britt. & Rose

COCHLOSPERMACEAE Cochlospermum Family
Amoreuxia gonzalezii Sprague & Riley

CYPERACEAE Sedge Family
Carex specuicola J. T. Howell–Navajo sedge

FABACEAE Pea Family [=Leguminosae]
Astragalus cremnophylax Barneby var. *cremnophylax* Sentry milk vetch

Astragalus holmgreniorum Barneby–Holmgren milk-vetch

Dalea tentaculoides Gentry–Gentry indigo bush

LENNOACEAE Lennoa Family
Pholisma arenarium Nutt.–Scaly-stemmed sand plant

Pholisma sonorae (Torr. ex Gray) Yatskievych–Sandfood, sandroot
Syn.: *Ammobroma sonorae* Torr. ex Gray

LILIACEAE Lily Family
Allium gooddingii Ownbey–Goodding's onion

ORCHIDACEAE Orchid Family
Cypripedium calceolus L. var. *pubescens* (Willd.) Correll–Yellow lady's slipper

Hexalectris warnockii Ames & Correll–Texas purple spike

Spiranthes delitescens C. Sheviak

POACEAE Grass Family [=Gramineae]
Puccinellia parishii A.S. Hitchc.–Parish alkali grass

POLYGONACEAE Buckwheat Family
Rumex orthoneurus Rech. f.

PSILOTACEAE Psilotum Family
Psilotum nudum (L.) Beauv. Bush Moss, Whisk Ferm

RANUNCULACEAE Buttercup Family
Cimicifuga arizonica Wats.–Arizona bugbane

Clematis hirsutissima Pursh var. *arizonica* (Heller) Erickson–Arizona leatherflower

ROSACEAE Rose Family
Purshia subintegra (Kearney) J. Hendrickson–Arizona cliffrose, Burro Creek cliffrose
Syn.: *Cowania subintegra* Kearney

SALICACEAE Willow Family
Salix arizonica Dorn–Arizona willow

SCROPHULARIACEAE Figwort Family
Penstemon discolor Keck–Variegated beardtongue

B. Salvage restricted native plants as prescribed in A.R.S. § 3-903(B)(2) that require a permit for removal. In addition to the plants listed under Agavaceae, Cactaceae, Liliaceae, and Orchidaceae, all other species in these families are salvage restricted protected native plants:

AGAVACEAE Agave Family
Agave chrysantha Peebles

Agave deserti Engelm. ssp. *simplex* Gentry–Desert agave

Agave mckelveyana Gentry

Agave palmeri Engelm.

Agave parryi Engelm. var. *couseii* (Engelm. ex Trel.) Kearney & Peebles

Agave parryi Engelm. var. *huachucensis* (Baker) Little ex L. Benson
Syn.: *Agave huachucensis* Baker

Agave parryi Engelm. var. *parryi*

Agave schottii Engelm. var. *schottii* – Shindigger

Agave toumeyana Trel. ssp. *bella* (Breitung) Gentry

Agave toumeyana Trel. ssp. *toumeyana*

Agave utahensis Engelm. spp. *kaibabensis* (McKelvey) Gentry
Syn.: *Agave kaibabensis* McKelvey

Agave utahensis Engelm. var. *utahensis*

Yucca angustissima Engelm. var. *angustissima*

Yucca angustissima Engelm. var. *kanabensis* (McKelvey) Reveal
Syn.: *Yucca kanabensis* McKelvey

Yucca arizonica McKelvey

Yucca baccata Torr. var. *baccata*–Banana yucca

Yucca baccata Torr. var. *vespertina* McKelvey

Yucca baileyi Woot. & Standl. var. *intermedia* (McKelvey) Reveal
Syn.: *Yucca navajoa* Webber

Yucca brevifolia Engelm. var. *brevifolia*–Joshua tree

Yucca brevifolia Engelm. var. *jaegeriana* McKelvey

Yucca elata Engelm. var. *elata*–Soaptree yucca, palmilla

Yucca elata Engelm var. *utahensis* (McKelvey) Reveal
Syn.: *Yucca utahensis* McKelvey

Yucca elata Engelm. var. *verdiensis* (McKelvey) Reveal
Syn.: *Yucca verdiensis* McKelvey

Yucca harrimaniae Trel.

Yucca schidigera Roezl.–Mohave yucca, Spanish dagger

Yucca schottii Engelm.–Hairy yucca

Yucca thornberi McKelvey

Yucca whipplei Torr. var. *whipplei*–Our Lord's candle
Syn.: *Yucca newberryi* McKelvey

AMARYLLIDACEAE Amaryllis Family
Zephyranthes longifolia Hemsl.–Plains Rain Lily

ANACARDIACEAE Sumac Family
Rhus kearneyi Barkley–Kearney Sumac

ARECACEAE Palm Family [=Palmae]
Washingtonia filifera (Linden ex Andre) H. Wendl–California fan palm

ASTERACEAE Sunflower Family [=Compositae]
Cirsium parryi (Gray) Petrak ssp. *mogollonicum* Schaak

Cirsium virginensis Welsh–Virgin thistle

Erigeron kuschei Eastw.–Chiricahua fleabane

Erigeron piscaticus Nesom–Fish Creek fleabane

Flaveria macdougalii Theroux, Pinkava & Keil

Perityle ajoensis Todson–Ajo rock daisy

Perityle cochisensis (Niles) Powell–Chiricahua rock daisy

Senecio quaerens Greene–Gila groundsel

BURSERACEAE Torch-Wood Family
Bursera microphylla Gray–Elephant tree, torote

CACTACEAE Cactus Family
Carnegiea gigantea (Engelm.) Britt. & Rose–Saguaro
Syn.: *Cereus giganteus* Engelm.

Coryphantha missouriensis (Sweet) Britt. & Rose

Coryphantha missouriensis (Sweet) Britt. & Rose var. *marstonii* (Clover) L. Benson

Coryphantha scheeri (Kuntze) L. Benson var. *valida* (Engelm.) L. Benson

Coryphantha strobiliformis (Poselger) var. *orcuttii* (Rose) L. Benson

Coryphantha strobiliformis (Poselger) var. *strobiliformis*

Coryphantha vivipara (Nutt.) Britt. & Rose var. *alversonii* (Coult.) L. Benson

Coryphantha vivipara (Nutt.) Britt. & Rose var. *arizonica* (Engelm.) W. T. Marshall
Syn.: *Mammillaria arizonica* Engelm.

Coryphantha vivipara (Nutt.) Britt. & Rose var. *bisbeeana* (Orcutt) L. Benson

Coryphantha vivipara (Nutt.) Britt. & Rose var. *deserti* (Engelm.) W. T. Marshall
Syn.: *Mammillaria chlorantha* Engelm.

Coryphantha vivipara (Nutt.) Britt. & Rose var. *rosea* (Clokey) L. Benson

Echinocactus polycephalus Engelm. & Bigel. var. *polycephalus*

Echinocactus polycephalus Engelm. & Bigel. var. *xeranthemoides* Engelm. ex Coult.
Syn.: *Echinocactus xeranthemoides* Engelm. ex Coult.

Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. *acicularis* L. Benson

Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. *armatus* L. Benson

Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. *chrysocentrus* L. Benson

Echinocereus engelmannii (Parry ex. Engelm.) Lemaire var. *engelmannii*

Echinocereus engelmannii (Parry) Lemaire var. *variegatus* (Engelm.) Engelm. ex Rümpler

Echinocereus fasciculatus (Engelm. ex B. D. Jackson) L. Benson var. fasciculatus
Syn.: *Echinocereus fendleri* (Engelm.) Rümpler var. *fasciculatus* (Engelm. ex B. D. Jackson) N. P. Taylor, *Echinocereus fendleri* (Engelm.) Rümpler var. *robusta* L. Benson; *Mammillaria fasciculata* Engelm.

Echinocereus fasciculatus (Engelm. ex B. D. Jackson) L. Benson var. *bonkerae* (Thornber & Bonker) L. Benson.
Syn.: *Echinocereus boyce-thompsonii* Orcutt var. *bonkerae* Peebles; *Echinocereus fendleri* (Engelm.) Rümpler var. *bonkerae* (Thornber & Bonker) L. Benson

Echinocereus fasciculatus (Engelm. ex B. D. Jackson) L. Benson var. *boyce-thompsonii* (Orcutt) L. Benson
Syn.: *Echinocereus boyce-thompsonii* Orcutt

Echinocereus fendleri (Engelm.) Rümpler var. *boyce-thompsonii* (Orcutt) L. Benson

Echinocereus fendleri (Engelm.) Rümpler var. *fendleri*

Echinocereus fendleri (Engelm.) Rümpler var. *rectispinus* (Peebles) L. Benson

Echinocereus ledingii Peebles

Echinocereus nicholii (L. Benson) Parfitt.
Syn.: *Echinocereus engelmannii* (Parry ex Engelm.) Lemaire var. *nicholii* L. Benson

Echinocereus pectinatus (Scheidw.) Engelm. var. *dasyacanthus* (Engelm.) N. P. Taylor

Syn.: *Echinocereus pectinatus* (Scheidw.) Engelm. var. *neomexicanus* (Coult.) L. Benson

Echinocereus polyacanthus Engelm. (1848) var. *polyacanthus*

Echinocereus pseudopectinatus (N. P. Taylor) N. P. Taylor
Syn.: *Echinocereus bristolii* W. T. Marshall var. *pseudopectinatus* N. P. Taylor, *Echinocereus pectinatus* (Scheidw.) Engelm. var. *pectinatus sensu* Kearney and Peebles, Arizona Flora, and L. Benson, The Cacti of Arizona and The Cacti of the United States and Canada.

Echinocereus rigidissimus (Engelm.) Hort. F. A. Haage.
Syn.: *Echinocereus pectinatus* (Scheidw.) Engelm. var. *rigidissimus* (Engelm.) Engelm. ex Rümpler–Rainbow cactus

Echinocereus triglochidiatus Engelm. var. *gonacanthus* (Engelm. & Bigel.) Boiss.

Echinocereus triglochidiatus Engelm. var. *melanacanthus* (Engelm.) L. Benson
Syn.: *Mammillaria aggregata* Engelm.

Echinocereus triglochidiatus Engelm. var. *mojavensis* (Engelm.) L. Benson

Echinocereus triglochidiatus Engelm. var. *neomexicanus* (Standl.) Standl. ex W. T. Marshall.
Syn.: *Echinocereus triglochidiatus* Engelm. var. *polyacanthus* (Engelm. 1859 non 1848) L. Benson

Echinocereus triglochidiatus Engelm. var. *triglochidiatus*

Echinomastus erectocentrus (Coult.) Britt. & Rose var. *erectocentrus*
Syn.: *Neolloydia erectocentra* (Coult.) L. Benson var. *erectocentra*

Echinomastus intertextus (Engelm.) Britt. & Rose
Syn.: *Neolloydia intertexta* (Engelg.) L. Benson

Echinomastus johnsonii (Parry) Baxter–Beehive cactus
Syn.: *Neolloydia johnsonii* (Parry) L. Benson

Epithelantha micromeris (Engelm.) Weber ex Britt. & Rose

Ferocactus cylindraceus (Engelm.) Orcutt var. *cylindraceus*–Barrel cactus
Syn.: *Ferocactus acanthodes* (Lemaire) Britt. & Rose var. *acanthodes*

Ferocactus cylindraceus (Engelm.) Orcutt var. *eastwoodiae* (Engelm.) N. P. Taylor
Syn.: *Ferocactus acanthodes* (Lemaire) Britt. & Rose var. *eastwoodiae* L. Benson; Ferocactus eastwoodiae (L. Benson) L. Benson

Ferocactus cylindraceus (Engelm.) Orcutt. var. *lecontei* (Engelm.) H. Bravo
Syn.: *Ferocactus acanthodes* (Lemaire) Britt. & Rose var. *leconti* (Engelm.) Lindsay; *Ferocactus lecontei* (Engelm.) Britt. & Rose

Ferocactus emoryi (Engelm.) Orcutt–Barrel cactus
Syn.: *Ferocactus covillei* Britt. & Rose

Ferocactus wislizenii (Engelm.) Britt. & Rose–Barrel cactus

Lophocereus schottii (Engelm.) Britt. & Rose–Senita

Mammillaria grahamii Engelm. var. *grahamii*

Mammillaria grahamii Engelm. var. *oliviae* (Orcutt) L. Benson
Syn.: *Mammillaria oliviae* Orcutt

Mammillaria heyderi Mühlenpf. var. *heyderi*
Syn.: *Mammillaria gummifera* Engelm. var. *applanata* (Engelm.) L. Benson

Mammillaria heyderi Mühlenpf. var. *macdougalii* (Rose) L. Benson
Syn.: *Mammillaria gummifera* Engelm. var. *macdougalii* (Rose) L. Benson; *Mammillaria macdougalii* Rose

Mammillaria heyderi Mühlenpf. var. *meiacantha* (Engelm.) L. Benson
Syn.: *Mammillaria gummifera* Engelm. var. *meiacantha* (Engelm.) L. Benson

Mammillaria lasiacantha Engelm.

Mammillaria mainiae K. Brand.

Mammillaria microcarpa Engelm.

Mammillaria tetrancistra Engelm.

Mammillaria thornberi Orcutt

Mammillaria viridiflora (Britt. & Rose) Bödeker.
Syn.: *Mammillaria orestra* L. Benson

Mammillaria wrightii Engelm. var. *wilcoxii* (Toumey ex K. Schumann) W. T. Marshall
Syn.: *Mammillaria wilcoxii* Toumey

Mammillaria wrightii Engelm. var. *wrightii*

Opuntia acanthocarpa Engelm. & Bigel. var. *acanthocarpa*–Buckhorn cholla

Opuntia acanthocarpa Engelm. & Bigel. var. *coloradensis* L. Benson

Opuntia acanthocarpa Engelm. & Bigel. var. *major* L. Benson
Syn.: *Opuntia acanthocarpa* Engelm. & Bigel var. *ramosa* Peebles

Opuntia acanthocarpa Engelm. & Bigel. var. *thornberi* (Thornber & Bonker) L. Benson
Syn.: *Opuntia thornberi* Thornber & Bonker

Opuntia arbuscula Engelm.–Pencil cholla

Opuntia basilaris Engelm. & Bigel. var. *aurea* (Baxter) W. T. Marshall–Yellow beavertail
Syn.: *Opuntia aurea* Baxter

Opuntia basilaris Engelm. & Bigel. var. *basilaris*–Beavertail cactus

Opuntia basilaris Engelm. & Bigel. var. *longiareolata* (Clover & Jotter) L. Benson

Opuntia basilaris Engelm. & Bigel. var. *treleasei* (Coult.) Toumey

Opuntia bigelovii Engelm.–Teddy-bear cholla

Opuntia campii ined.

Opuntia canada Griffiths (*O. phaeacantha* Engelm. var. *laevis X major* and *O. gilvescens* Griffiths).

Opuntia chlorotica Engelm. & Bigel.–Pancake prickly-pear

Opuntia clavata Engelm.–Club cholla

Opuntia curvospina Griffiths

Opuntia echinocarpa Engelm. & Bigel–Silver cholla

Opuntia emoryi Engelm.–Devil cholla
Syn.: *Opuntia stanlyi* Engelm. ex B. D. Jackson var. *stanlyi*

Opuntia engelmannii Salm-Dyck ex Engelm. var. *engelmannii*–Engelmann's prickly-pear
Syn.: *Opuntia phaeacantha* Engelm. var. *discata* (Griffiths) Benson & Walkington

Opuntia engelmannii Salm-Dyck ex Engelm. var. *flavospina* (L.Benson) Parfitt & Pinkava
Syn.: *Opuntia phaeacantha* Engelm. var. *flavispina* L. Benson

Opuntia erinacea Engelm. & Bigel. var. *erinacea*–Mohave prickly-pear

Opuntia erinacea Engelm. & Bigel. var. *hystricina* (Engelm. & Bigel.) L. Benson
Syn.: *Opuntia hystricina* Engelm. & Bigel.

Opuntia erinacea Engelm. & Bigel. var. *ursina* (Weber) Parish–Grizzly bear prickly-pear
Syn.: *Opuntia ursina* Weber

Opuntia erinacea Engelm. & Bigel. var. *utahensis* (Engelm.) L. Benson
Syn.: *Opuntia rhodantha* Schum.

Opuntia fragilis Nutt. var. *brachyarthra* (Engelm. & Bigel.) Coult.

Opuntia fragilis Nutt. var. *fragilis*–Little prickly-pear

Opuntia fulgida Engelm. var. *fulgida*–Jumping chain-fruit cholla

Opuntia fulgida Engelm. var. *mammillata* (Schott) Coult.

Opuntia imbricata (Haw.) DC.–Tree cholla

Opuntia X kelvinensis V. & K. Grant pro sp.
Syn.:*Opuntia kelvinensis* V. & K. Grant

Opuntia kleiniae DC. var. *tetracantha* (Toumey) W. T. Marshall
Syn.: *Opuntia tetrancistra* Toumey

Opuntia kunzei Rose.
Syn.: *Opuntia stanlyi* Engelm. ex B. D. Jackson var. *kunzei* (Rose) L. Benson; *Opuntia kunzei* Rose var. *wrightiana* (E. M. Baxter) Peebles; *Opuntia wrightiana* E. M. Baxter

Opuntia leptocaulis DC.–Desert Christmas cactus, Pencil cholla

Opuntia littoralis (Engelm.) Cockl. var. *vaseyi* (Coult.) Benson & Walkington

Opuntia macrocentra Engelm.–Purple prickly-pear
Syn.: *Opuntia violacea* Engelm. ex B. D. Jackson var. *macrocentra* (Engelm.) L. Benson; *Opuntia violacea* Engelm. ex B. D. Jackson var. *violacea*

Opuntia macrorhiza Engelm. var. *macrorhiza*–Plains prickly-pear
Syn.: *Opuntia plumbea* Rose

Opuntia macrorhiza Engelm. var. *pottsii* (Salm-Dyck) L. Benson

Opuntia martiniana (L. Benson) Parfitt
Syn.: *Opuntia littoralis* (Engelm.) Cockerell var. *martiniana* (L. Benson) L. Benson; *Opuntia macrocentra* Engelm. var. *martiniana L. Benson*

Opuntia nicholii L. Benson–Navajo Bridge prickly-pear

Opuntia parishii Orcutt.
Syn.: *Opuntia stanlyi* Engelm. ex B. D. Jackson var. *parishii* (Orcutt) L. Benson

Opuntia phaeacantha Engelm. var. *laevis* (Coult.) L. Benson
Syn.: *Opuntia laevis* Coult.

Opuntia phaeacantha Engelm. var. *major* Engelm.

Opuntia phaeacantha Engelm. var. *phaeacantha*

Opuntia phaeacantha Engelm. var. *superbospina* (Griffiths) L. Benson

Opuntia polyacantha Haw. var. *juniperina* (Engelm.) L. Benson

Opuntia polyacantha Haw. var. *rufispina* (Engelm.) L. Benson

Opuntia polyacantha Haw. var. *trichophora* (Engelm. & Bigel.) L. Benson

Opuntia pulchella Engelm.–Sand cholla

Opuntia ramosissima Engelm.–Diamond cholla

Opuntia santa-rita (Griffiths & Hare) Rose–Santa Rita prickly-pear
Syn.: *Opuntia violacea* Engelm. ex B. D. Jackson var. *santa-rita* (Griffiths & Hare) L. Benson

Opuntia spinosior (Engelm.) Toumey–Cane cholla

Opuntia versicolor Engelm.–Staghorn cholla

Opuntia vivipara Engelm

Opuntia whipplei Engelm. & Bigel. var. *multigeniculata* (Clokey) L. Benson

Opuntia whipplei Engelm. & Bigel. var. *whipplei*–Whipple cholla

Opuntia wigginsii L. Benson

Pediocactus papyracanthus (Engelm.) L. Benson Grama grass cactus
Syn.: *Toumeya papyracanthus* (Engelm.) Britt. & Rose

Pediocactus simpsonii (Engelm.) Britt & Rose var. *simpsonii*

Peniocereus greggii (Engelm.) Britt. & Rose var. *greggii*–Night-blooming cereus
Syn.: *Cereus greggii* Engelm.

Peniocereus greggii (Engelm.) Britt & Rose var. *transmontanus*–Queen-of-the-Night

Peniocereus striatus (Brandegee) Buxbaum.
Syn.: *Neoevansia striata* (Brandegee) Sanchez-Mejorada; *Cereus striatus* Brandegee; *Wilcoxia diguetii* (Webber) Peebles

Sclerocactus parviflorus Clover & Jotter var. *intermedius* (Peebles) Woodruff & L. Benson
Syn.: *Sclerocactus intermedius* Peebles

Sclerocactus parviflorus Clover & Jotter var. *parviflorus*
Syn.: *Sclerocactus whipplei* (Engelm. & Bigel.) Britt. & Rose var. *roseus* (Clover) L. Benson

Sclerocactus pubispinus (Engelm.) L. Peebles

Sclerocactus spinosior (Engelm.) Woodruff & L. Benson
Syn.: *Sclerocactus pubispinus* (Engelm.) L. Benson var. *sileri* L. Benson

Sclerocactus whipplei (Engelm. & Bigel.) Britt. & Rose

Stenocereus thurberi (Engelm.) F. Buxbaum–Organ pipe cactus
Syn.: *Cereus thurberi* Engelm.; *Lemairocereus thurberi* (Engelm.) Britt. & Rose

CAMPANULACEAE Bellflower Family

Lobelia cardinalis L. ssp. *graminea* (Lam.) McVaugh–Cardinal flower

Lobelia fenestralis Cav.–Leafy lobelia

Lobelia laxiflora H. B. K. var. *angustifolia* A. DC.

CAPPARACEAE Cappar Family [=Capparidaceae]

Cleome multicaulis DC.–Playa spiderflower

CHENOPODIACEAE Goosefoot Family

Atriplex hymenelytra (Torr.) Wats.

CRASSULACEAE Stonecrop Family

Dudleya arizonica (Nutt.) Britt. & Rose
Syn.: *Echeveria pulverulenta* Nutt. ssp. *arizonica* (Rose) Clokey

Dudleya saxosa (M.E. Jones) Britt. & Rose ssp. *collomiae* (Rose) Moran
Syn.: *Echeveria collomiae* (Rose) Kearney & Peebles

Graptopetalum bartramii Rose
Syn.:*Echevaria bartramii* (Rose) K. & P.

Graptopetalum bartramii Rose–Bartram's stonecrop, Bartram's live-forever
Syn.: *Echeveria bartramii* (Rose) Kearney & Peebles

Graptopetalum rusbyi (Greene) Rose
Syn.: *Echeveria rusbyi* (Greene) Nels. & Macbr.

Sedum cockerellii Britt.

Sedum griffithsii Rose

Sedum lanceolatum Torr.
Syn.: *Sedum stenopetalum* Pursh

Sedum rhodanthum Gray

Sedum stelliforme Wats.

CROSSOSOMATACEAE Crossosoma Family

Apacheria chiricahuensis C. T. Mason–Chiricahua rock flower

CUCURBITACEAE Gourd Family

Tumamoca macdougalii Rose–Tumamoc globeberry

EUPHORBIACEAE Spurge Family

Euphorbia plummerae Wats.–Woodland spurge

Sapium biloculare (Wats.) Pax–Mexican jumping-bean

FABACEAE Pea Family [=Leguminosae]

Astragalus corbrensis Gray var. *maguirei* Kearney

Astragalus cremnophylax Barneby var. *myriorraphis* Barneby–Cliff milk-vetch

Astragalus hypoxylus Wats.–Huachuca milk-vetch

Astragalus nutriosensis Sanderson–Nutrioso milk-vetch

Astragalus xiphoides (Barneby) Barneby–Gladiator milk-vetch

Cercis occidentalis Torr.–California redbud

Errazurizia rotundata (Woot.) Barneby
Syn.: *Parryella rotundata* Woot.

Lysiloma microphylla Benth. var. *thornberi* (Britt. & Rose) Isely–Feather bush
Syn.: *Lysiloma thornberi* Britt. & Rose

Phaseolus supinus Wiggins & Rollins

FOUQUIERIACEAE Ocotillo Family

Fouquieria splendens Engelm.–Ocotillo, coach-whip, monkey-tail

GENTIANACEAE Gentian Family

Gentianella wislizenii (Engelm.) J. Gillett
Syn.: *Gentiana wislizenii* Engelm.

LAMIACEAE Mint Family

Hedeoma diffusum Green–Flagstaff pennyroyal

Salvia dorrii ssp. *mearnsii*

Trichostema micranthum Gray

LILIACEAE Lily Family

Allium acuminatum Hook.

Allium bigelovii Wats.

Allium biseptrum Wats. var. *palmeri* (Wats.) Cronq.
Syn.: *Allium palmeri* Wats.

Allium cernuum Roth. var. *neomexicanum* (Rydb.) Macbr.–Nodding onion

Allium cernuum Roth. var. *obtusum* Ckll.

Allium geyeri Wats. var. *geyeri*

Allium geyeri Wats. var. *tenerum* Jones

Allium kunthii Don

Allium macropetalum Rydb.

Allium nevadense Wats. var. *cristatum* (Wats.) Ownbey

Allium nevadense Wats. var. *nevadense*

Allium parishii Wats.

Allium plummerae Wats.

Allium rhizomatum Woot. & Standl. Incl.: *Allium glandulosum* Link & Otto *sensu* Kearney & Peebles

Androstephium breviflorum Wats.–Funnel-lily

Calochortus ambiguus (Jones) Ownbey

Calochortus aureus Wats.
Syn.: *Calochortus nuttallii* Torr. & Gray var. *aureus* (Wats.) Ownbey

Calochortus flexuosus Wats.–Straggling mariposa

Calochortus gunnisonii Wats.

Calochortus kennedyi Porter var. *kennedyi*–Desert mariposa

Calochortus kennedyi Porter var. *munzii* Jeps.

Dichelostemma pulchellum (Salisbi) Heller var. *pauciflorum* (Torr.) Hoover

Disporum trachycarpum (Wats.) Benth. & Hook. var. *subglabrum* Kelso

Disporum trachycarpum (Wats.) Benth. & Hook. var. *trachycarpum*

Echeandia flavescens (Schultes & Schultes) Cruden
Syn.: *Anthericum torreyi* Baker

Eremocrinum albomarginatum Jones

Fritillaria atropurpurea Nutt.

Hesperocallis undulata Gray–Ajo lily

Lilium parryi Wats.–Lemon lily

Lilium umbellatum Pursh

Maianthemum racemosum (L.) Link. ssp. *amplexicaule* (Nutt.) LaFrankie
Syn.: *Smilacina racemosa* (L.) Desf. var. *amplexicaulis* (Nutt.) Wats.

Maianthemum racemosum (L.) Link ssp. *racemosum*–False Solomon's seal
Syn.: *Smilacina racemosa* (L.) Desf. var. *racemosa*; *Smilacina racemosa* (L.) Desf. var. *cylindrata* Fern.

Maianthemum stellatum (L.) Link
Syn.: *Smilacina stellata* (L.) Desf.–Starflower

Milla biflora Cav.–Mexican star

Nothoscordum texanum Jones

Polygonatum cobrense (Woot. & Standl.) Gates

Streptopus amplexifolius (L.) DC.–Twisted stalk

Triteleia lemmonae (Wats.) Greene

Triteleiopsis palmeri (Wats.) Hoover

Veratrum californicum Durand.–False hellebore

Zephyranthes longifolia Hemsl.–Plains rain lily

Zigadenus elegans Pursh–White camas, alkali-grass

Zigadenus paniculatus (Nutt.) Wats.–Sand-corn

Zigadenus virescens (H. B. K.) Macbr.

MALVACEAE Mallow Family

Abutilon parishii Wats.–Tucson Indian mallow

Abutilon thurberi Gray–Baboquivari Indian mallow

NOLINACEAE Nolina

Dasylirion wheeleri Wats.–Sotol, desert spoon

Nolina bigelovii (Torr.)Wats.–Bigelow's nolina

Nolina microcarpa Wats.–Beargrass, sacahuista

Nolina parryi Wats.–Parry's nolina

Nolina texana Wats. var. *compacta* (Trel.) Johnst.–Bunchgrass

ONAGRACEAE Evening Primrose Family

Camissonia exilis (Raven) Raven

ORCHIDACEAE Orchid Family

Calypso bulbosa (L.) Oakes var. *americana* (R. Br.) Luer

Coeloglossum viride (L.) Hartmann var. *virescens* (Muhl.) Luer
Syn.: *Habenaria viridis* (L.) R. Br. var. *bracteata* (Muhl.) Gray

Corallorhiza maculata Raf.–Spotted coral root

Corallorhiza striata Lindl.–Striped coral root

Corallorhiza wisteriana Conrad–Spring coral root

Epipactis gigantea Douglas ex Hook.–Giant helleborine

Goodyera oblongifolia Raf.

Goodyera repens (L.) R. Br.

Hexalectris spicata (Walt.) Barnhart–Crested coral root

Listera convallarioides (Swartz) Nutt.–Broad-leaved twayblade

Malaxis corymbosa (S. Wats.) Kuntze

Malaxis ehrenbergii (Reichb. f.) Kuntze

Malaxis macrostachya (Lexarza) Kuntze–Mountain malaxia
Syn.: *Malaxis soulei* L. O. Williams

Malaxis tenuis (S. Wats.) Ames

Platanthera hyperborea (L.) Lindley var. *gracilis* (Lindley) Luer
Syn.: *Habenaria sparsiflora* Wats. var. *laxiflora* (Rydb.) Correll

Platanthera hyperborea (L.) Lindley var. *hyperborea*–Northern green orchid
Syn.: *Habenaria hyperborea* (L.) R. Br.

Platanthera limosa Lindl.–Thurber's bog orchid
Syn.: *Habenaria limosa* (Lindley) Hemsley

Platanthera sparsiflora (Wats.) Schlechter var. *ensifolia* (Rydb.) Luer

Platanthera sparsiflora (Wats.) var. *laxiflora* (Rydb.) Correll

Platanthera sparsiflora (Wats.) Schlechter var. *sparsiflora*–Sparsely-flowered bog orchid
Syn.: *Habenaria sparsiflora* Wats.

Platanthera stricta Lindl.–Slender bog orchid
Syn.: *Habenaria saccata* Greene; *Platanthera saccata* (Greene) Hulten

Platanthera viridis (L.) R. Br. var. *bracteata* (Muhl.) Gray–Long-bracted habenaria

Spiranthes michaucana (La Llave & Lex.) Hemsl.

Spiranthes parasitica A. Rich. & Gal.

Spiranthes romanzoffiana Cham.–Hooded ladies tresses

PAPAVERACEAE Poppy Family

Arctomecon californica Torr. & Frém.–Golden-bear poppy, Yellow-flowered desert poppy

PINACEAE Pine Family

Pinus aristata Engelm.–Bristlecone pine

POLYGONACEAE Buckwheat Family

Eriogonum apachense Reveal

Eriogonum capillare Small

Eriogonum mortonianum Reveal–Morton's buckwheat

Eriogonum ripleyi J. T. Howell–Ripley's wild buckwheat, Frazier's Well buckwheat

Eriogonum thompsonae Wats. var. *atwoodii* Reveal–Atwood's buckwheat

PORTULACEAE Purslane Family

Talinum humile Greene–Pinos Altos flame flower

Talinum marginatum Greene

Talinum validulum Greene–Tusayan flame flower

PRIMULACEAE Primrose Family

Dodecatheon alpinum (Gray) Greene ssp. *majus* H. J. Thompson

Dodecatheon dentatum Hook. ssp. *ellisiae* (Standl.) H. J. Thompson

Dodecatheon pulchellum (Raf.) Merrill

Primula hunnewellii Fern.

Primula rusbyi Greene

Primula specuicola Rydb.

RANUNCULACEAE Buttercup Family

Aquilegia caerulea James ssp. *pinetorum* (Tidest.) Payson–Rocky Mountain Columbine

Aquilegia chrysantha Gray

Aquilegia desertorum (Jones) Ckll.–Desert columbine, Mogollon columbine

Aquilegia elegantula Greene

Aquilegia longissima Gray–Long Spur Columbine

Aquilegia micrantha Eastw.

Aquilegia triternata Payson

ROSACEAE Rose Family

Rosa stellata Woot.–ssp. *abyssa* A. Phillips Grand Canyon rose

Vauquelinia californica (Torr.) Sarg. ssp. *pauciflora* (Standl.) Hess & Henrickson–Few-flowered Arizona rosewood

SCROPHULARIACEAE Figwort Family

Castilleja mogollonica Pennell

Penstemon albomarginatus Jones

Penstemon bicolor (Brandeg.) Clokey & Keck ssp. *roseus* Clokey & Keck

Penstemon clutei A. Nels.

Penstemon distans N. Holmgren–Mt. Trumbull beardtongue

Penstemon linarioides spp. maguirei

SIMAROUBACEAE Simarouba Family

Castela emoryi (Gray) Moran & Felger–Crucifixion thorn
Syn.: *Holacantha emoryi* Gray

STERCULIACEAE Cacao Family

Fremontodendron californicum (Torr.) Coville–Flannel bush

C. Salvage assessed native plants as prescribed in A.R.S. § 3-903(B)(3) that require a permit for removal:

BIGNONIACEAE Bignonia Family

Chilopsis linearis (Cav.) Sweet var. *arcuata* Fosberg–Desert-willow

Chilopsis linearis (Cav.) Sweet var. *glutinosa* (Engelm.) Fosberg

FABACEAE Pea Family [=Leguminosae]

Cercidium floridum Benth.–Blue palo verde

Cercidium microphyllum (Torr.) Rose & Johnst.–Foothill palo verde

Olneya tesota Gray–Desert ironwood

Prosopis glandulosa Torr. var. *glandulosa*–Honey mesquite
Syn.: *Prosopis juliflora* (Swartz) DC. var. *glandulosa* (Torr.) Ckll.

Prosopis glandulosa Torr. var. *torreyana* (Benson) M. C. Johnst.–Western honey mesquite
Syn.: *Prosopis juliflora* (Swartz) DC. var. *torreyana* Benson

Prosopis pubescens Benth.–Screwbean mesquite

Prosopis velutina Woot.–Velvet mesquite
Syn.: *Prosopis juliflora* (Swartz) DC. var. *velutina* (Woot.) Sarg.

Psorothamnus spinosus (Gray) Barneby–Smoke tree.
Syn.: *Dalea spinosa* Gray

D. Harvest restricted native plants as prescribed at A.R.S. § 3-903(B)(4) that require a permit to cut or remove the plants for their by-products, fibers, or wood:

AGAVACEAE Agave Family (including Nolinaceae)

Nolina bigelovii (Torr.) Wats.–Bigelow's nolina

Nolina microcarpa Wats.–Beargrass, sacahuista

Nolina parryi Wats.–Parry's nolina

Nolina texana Wats. var. *compacta* (Trel.) Johnst.–Bunchgrass

Yucca baccata Torr. var. *baccata*–Banana yucca

Yucca schidigera Roezl.–Mohave yucca, Spanish dagger

FABACEAE Pea Family [=Leguminosae]

Olneya tesota Gray–Desert ironwood

Prosopis glandulosa Torr. var. *glandulosa*–Honey mesquite
Syn.: *Prosopis juliflora* (Swartz) DC. var. *glandulosa* (Torr.) Ckll.

Prosopis glandulosa Torr. var. *torreyana* (Benson) M. C. Johnst.–Western honey mesquite
Syn.: *Prosopis juliflora* (Swartz) DC. var. *torreyana* Benson

Prosopis pubescens Benth.–Screwbean mesquite

Prosopis velutina Woot.–Velvet mesquite
Syn.: *Prosopis juliflora* (Swartz) DC. var. *velutina* (Woot.) Sarg.

Historical Note

New Section recodified from 3 A.A.C. 4, Article 6 at 10 A.A.R. 726, effective February 6, 2004 (Supp. 04-1). Amended by final rulemaking at 14 A.A.R. 811, effective May 3, 2008 (Supp. 08-1).

3-107. Organizational and administrative powers and duties of the director

A. The director shall:

1. Formulate the program and policies of the department and adopt administrative rules to effect its program and policies.

2. Ensure coordination and cooperation in the department in order to achieve a unified policy of administering and executing its responsibilities.

3. Subject to section 35-149, accept, expend and account for gifts, grants, devises and other contributions of money or property from any public or private source, including the federal government. All contributions shall be included in the annual report under paragraph 6 of this subsection. Monies received under this paragraph shall be deposited, pursuant to sections 35-146 and 35-147, in special funds for the purpose specified, which are exempt from the provisions of section 35-190 relating to lapsing of appropriations.

4. Contract and enter into interagency and intergovernmental agreements pursuant to title 11, chapter 7, article 3 with any private party or public agency.

5. Administer oaths to witnesses and issue and direct the service of subpoenas requiring witnesses to attend and testify at or requiring the production of evidence in hearings, investigations and other proceedings.

6. Not later than September 30 each year, issue a report to the governor and the legislature of the department's activities during the preceding fiscal year. The report may recommend statutory changes to improve the department's ability to achieve the purposes and policies established by law. The director shall provide a copy of the report to the Arizona state library, archives and public records.

7. Establish, equip and maintain a central office in Phoenix and field offices as the director deems necessary.

8. Sign all vouchers to expend money under this title, which shall be paid as other claims against this state out of the appropriations to the department.

9. Coordinate agricultural education efforts to foster an understanding of Arizona agriculture and to promote a more efficient cooperation and understanding among agricultural educators, producers, dealers, buyers, mass media and the consuming public to stimulate the production, consumption and marketing of Arizona agricultural products.

10. Employ staff subject to title 41, chapter 4, article 4 and terminate employment for cause as provided by title 41, chapter 4, article 5.

11. Conduct hearings on appeals by producers regarding the assessed actual costs of the plow up and the penalty of one hundred fifty per cent for unpaid costs pursuant to section 3-204.01. The director may adopt rules to implement this paragraph.

12. Cooperate with the Arizona-Mexico commission in the governor's office and with researchers at universities in this state to collect data and conduct projects in the United States and Mexico on issues that are within the scope of the department's duties and that relate to quality of life, trade and economic development in this state in a manner that will help the Arizona-Mexico commission to assess and enhance the economic competitiveness of this state and of the Arizona-Mexico region.

B. The director may:
1. Authorize in writing any qualified officer or employee in the department to perform any act that the director is authorized or required to do by law.
2. Construct and operate border inspection stations or other necessary facilities in this state and cooperate by joint agreement with an adjoining state in constructing and operating border inspection stations or other facilities within the boundaries of this state or of the adjoining state.
3. Cooperate with agencies of the United States and other states and other agencies of this state and enter into agreements in developing and administering state and federal agricultural programs regarding the use of department officers, inspectors or other resources in this state, in other states or in other countries.
4. Cooperate with the office of tourism in distributing Arizona tourist information.
5. Enter into compliance agreements with any person, state or regulatory agency. For the purposes of this paragraph, "compliance agreement" means any written agreement or permit between a person and the department for the purpose of enforcing the department's requirements.
6. Abate, suppress, control, regulate, seize, quarantine or destroy any agricultural product or foodstuff that is adulterated or contaminated as the result of an accident at a commercial nuclear generating station as defined in section 26-301, paragraph 1. A person owning an agricultural product or foodstuff that has been subject to this paragraph may request a hearing pursuant to title 41, chapter 6, article 10.
7. Engage in joint venture activities with businesses and commodity groups that are specifically designed to further the mission of the department, that comply with the constitution and laws of the United States and that do not compete with private enterprise.
8. Sell, exchange or otherwise dispose of personal property labeled with the "Arizona grown" trademark. Revenues received pursuant to this paragraph shall be credited to the commodity promotion fund established by section 3-109.02.

3-363. Rules
The director shall adopt rules to regulate pesticides that include provisions to:
1. Administer and implement this article.
2. Prescribe measures to control, monitor, inspect and govern pesticide use.
3. Prohibit or restrict pesticide use.
4. Restrict the areas in which pesticide use may occur.
5. Prescribe minimum qualifications for all persons who engage in pesticide use, including, as appropriate, requirements that the persons have valid licenses, permits or certificates, have adequate training, including continuing education requirements, and meet financial responsibility standards.
6. Prescribe appropriate record keeping and reporting requirements regarding pesticide use, except that the record keeping and reporting requirements for growers and certified private applicators who apply pesticides shall be

equivalent to, but not more stringent than, the requirements prescribed under the federal insecticide, fungicide and rodenticide act (61 Stat. 163) and the food, agriculture, conservation and trade act of 1990 (P.L. 101-624; 104 Stat. 3359).
7. Prohibit pesticide use that is inconsistent with the pesticide label as required under the federal insecticide, fungicide and rodenticide act (61 Stat. 163).
8. Exempt from regulation under this article pesticide use that is regulated in title 32, chapter 22.
9. Issue licenses, permits and certificates for pesticide use, as appropriate, having terms of one or more years.
10. Charge and collect the following fees for each permit, license and certification under this article:
(a) Not to exceed twenty dollars per year for a grower permit.
(b) Not to exceed one hundred dollars per year for a seller permit.
(c) Not to exceed one hundred dollars per year for a custom applicator license.
(d) Not to exceed fifty dollars per year for a pilot license.
(e) Not to exceed fifty dollars per year for a pest control advisor license.
(f) Not to exceed twenty-five dollars per year for a piece of equipment used to apply pesticides by a custom applicator.
(g) Not to exceed fifty dollars per year for restricted use certification.
(h) Not to exceed the amount set by the director by rule for a license or certificate for pesticide use on golf courses.
11. Establish a nonexclusive list of acts and omissions that constitute serious, nonserious and de minimis violations of this article.
12. Establish a system of administrative penalties and fines for violations of this article and any rules adopted under this article. Under this system:
(a) Violators shall be assessed a number of points for each violation, depending on such factors as:
(i) Potential and actual consequences of the violation on public and worker health and safety and the environment.
(ii) The wrongfulness of the conduct.
(iii) The degree of culpability of the violator.
(iv) The duration of the violation.
(v) Prior violations or citations.
(b) Penalties shall be assessed depending on the number of points accrued by the violator.