

NOTICE OF PROPOSED EXPEDITED RULEMAKING

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR POLLUTION CONTROL

PREAMBLE

**1. Article, Part, or Section Affected (as applicable) Rulemaking Action**

R18-2-101 Amend

R18-2-404 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. §§ 49-104(A)(1) and (A)(10), 49-404(A), and 49-406

Implementing statute: A.R.S. §§ 49-425(A), 49-426

**3. 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 Proposed Expedited Rulemaking Docket Opening: (*in this issue*)

**4. The agency's contact person who can answer questions about the rulemaking:**

Name: Zachary Dorn

Address: Arizona Department of Environmental Quality

Air Quality Division, AQIP Section

1110 W. Washington St.

Phoenix, AZ 85007

Telephone: (602) 771-4585 (This number may be reached in-state by dialing 1-800-234-5677 and entering the seven digit number.)

E-mail: dorn.zachary@azdeq.gov

**5. An agency's justification and reason why a rule should be made, amended, repealed or renumbered under A.R.S. § 41-1027(A), to include an explanation about the rulemaking:**

## **Summary**

The purpose of this Arizona Department of Environmental Quality (ADEQ) rulemaking is to address two issues related to the New Source Review (NSR) program. First, ADEQ proposes amending Arizona Administrative Code (A.A.C.) Title 18, Chapter 2, Article 1, R18-2-101(23)(h) to conform ADEQ's rules to the 1990 Clean Air Act Amendments (CAAA) and the U.S. Environmental Protection Agency's (EPA) July 19, 2021 correction of its rules to comply with the statutory change, that changed the definition of a "major emitting facility" with regard to municipal incinerators. 86 FR 37,918 (July 19, 2021). Second, ADEQ must amend A.A.C. Title 18, Chapter 2, Article 4, R18-2-404(A), to remove the sentence authorizing ozone inter-precursor trading (IPT) as required by *Sierra Club v. EPA*, 985 F.3d 1055 (D.C. Cir., 2021). Both of these proposed amendments are required to avoid the imposition of a federal implementation plan (FIP) and sanctions under the federal Clean Air Act (CAA) § 179. *See also* CAA § 172 and 40 C.F.R. § 51.1314.

Pursuant to A.R.S. § 41-1027(A)(6), this expedited rulemaking does not increase the cost of regulatory compliance, increase a fee or reduce procedural rights of regulated persons. This rulemaking proposes to amend rules that are outdated and no longer necessary for operation of the state government, as they are inconsistent with applicable federal law. As described above, the definition of "major emitting facility" with regard to municipal incinerators in R18-2-101(23)(h) has been out of date since the enactment of the 1990 CAAA, and EPA's July 2021 notice of corrections finally addressed the correction. Additionally, the sentence authorizing ozone IPT in R18-2-404(A) was rendered obsolete under the CAA due to the *Sierra Club* ruling.

## **Legal Background**

### **CAA NSR**

Under CAA § 110(a)(1), each state is obligated to submit a "plan which provides for implementation, maintenance, and enforcement of" the national ambient air quality standards (NAAQS). The CAA goes on to require that state implementation plans (SIPs):

Include a program to provide for the . . . regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of [Title I of the CAA].

CAA § 110(a)(2)(C). State and federal regulations adopted under this section are commonly referred to as "new source review" programs because they apply to newly constructed and modified, as opposed to existing, sources. The CAA divides NSR requirements into those that apply to attainment areas (Part C requirements)

and those that apply to nonattainment areas (Part D requirements). This rulemaking focuses on Part D of Title I of the CAA.

Part D of Title I of the CAA requires states to establish an NSR program for major sources and modifications in nonattainment areas (NAAs). This program is known as “Nonattainment New Source Review” (NNSR). Under Subpart 1 of Part D, a major source is defined as any source that emits, or has the potential to emit, 100 tons per year or more of a pollutant for which the area has been designated nonattainment.

Permit applicants subject to NNSR requirements under Part D must demonstrate that a major source or modification will comply with the lowest achievable emission rate (LAER) and that reductions in emissions from the same source or other sources will offset any emissions increases from the new or modified source. Subpart 2 of Part D establishes specific offset requirements for ozone precursors in ozone nonattainment areas.

### **CAA Sanctions**

Under CAA § 172, ADEQ must submit a SIP that, among other things, addresses the requirements of the NNSR program. 40 C.F.R. § 51.1314. A SIP revision addressing NNSR requirement must be submitted to EPA 36 months after the effective date an area is designated as nonattainment for the ozone NAAQS. *Id.*

If Arizona fails to submit a SIP revision satisfying CAA § 172, or if EPA disapproves any element, such as NNSR, of a plan submitted under Title I, Part D of the CAA relating to nonattainment areas, and the plan deficiencies are not corrected within 18 months after the effective date of the disapproval, major sources subject to NNSR will have to offset emissions increases at a ratio of 2 to 1, as opposed to a ratio of 1:1 if a SIP revision satisfies CAA § 172. 42 U.S.C. § 7509(a), (b)(2); 40 CFR § 52.31(d)(1). If the deficiencies remain uncorrected for an additional six months, the state loses most federal highway funds in the affected area. 42 USC § 7509(a), (b)(1); 40 CFR § 52.31(d)(1). If imposed, the sanctions will apply to nonattainment areas under ADEQ’s jurisdiction and the pollutants covered by the plan and will remain in effect until EPA finds that a revised plan corrects the deficiencies. 40 CFR § 52.31(b)(3), (d)(2), (5).

Additionally, EPA is required to adopt a federal implementation plan (FIP) within twenty-four months following the disapproval of any SIP if the deficiencies are not corrected and approved. 42 U.S.C. § 7410(c). ADEQ therefore must correct all deficiencies with its NSR rules to avoid a disapproval, and potential sanctions.

### **Factual Background**

On June 4, 2018, EPA designated the Yuma and the Phoenix-Mesa (including portions of Gila and Pinal counties) NAAs as marginal NAAs for the 2015 ozone NAAQS. 83 FR 24,776 (June 4, 2018). As a result of these designations, ADEQ must submit a SIP revision that, among other things, addresses the requirements of the NNSR program (including the prohibition of IPT) by August 3, 2021. CAA § 172; 40 C.F.R. § 51.1314. Due to the uncertainty associated with IPT litigation described below, ADEQ did not address the IPT

requirement prior to the August 3, 2021 date. Now that the litigation concluded, ADEQ is proposing these rule amendments to resolve this outstanding issue. If Arizona fails to submit this SIP revision, or EPA disapproves this SIP revision, and the failure or disapproval is not cured within the time period specified by the CAA, the Yuma NAA and the Gila and Pinal portions of the Phoenix-Mesa Ozone NAA may become subject to the sanctions described above. CAA § 179. Under A.R.S. § 49-402(A), ADEQ has original jurisdiction over all sources in a county with no air quality permitting program and over major sources in a county “that has not received approval from the administrator [of EPA] for new source review and prevention of significant deterioration [PSD].”

Maricopa County has a SIP-approved NSR program and delegated authority to administer PSD under 40 C.F.R § 52.21. Pinal County has a SIP-approved PSD program, but lacks EPA approval for NNSR. Gila and Yuma Counties have no air quality permit programs.

ADEQ thus has NNSR permitting jurisdiction over major sources of ozone precursors in the Gila and Pinal portions of the Phoenix-Mesa nonattainment area and in the Yuma nonattainment area. ADEQ’s NNSR program therefore must meet all CAA NNSR requirements, including the prohibition of IPT, in order for the ozone nonattainment area plans for those areas to be fully approvable.

**The 1990 CAAA and a recent notice of correction by EPA require ADEQ to change its definition of “municipal incinerator.”**

On July 19, 2021, EPA issued a final rule that amended several NSR regulations to correct typographical and grammatical errors, removing court vacated rule language, removing or updating outdated or incorrect cross references, conforming provisions to changes in the 1990 CAAA and removing outdated grandfathering or transitional exemptions. 86 FR 37,918 (July 19, 2021). Among these changes, EPA amended its NSR regulations to reflect a change to the statutory definition of “major emitting facility” for municipal incinerators that occurred in the 1990 CAAA. *Id.* at 37,922. This statutory change lowered the charging capacity threshold for qualifying municipal incinerators from 250 tons of refuse per day to 50 tons per day. *Id.* As this requirement is part of NNSR, ADEQ must make this change to A.A.C. R18-2-101(23)(h) to avoid the risk of sanctions.

**A final, binding decision by the D.C. Circuit Court of Appeals requires ADEQ to remove ozone IPT from its rules.**

In 2008, EPA promulgated a new NAAQS for ozone, setting the standard at 75 ppb. 73 FR 16,436 (Mar. 27, 2008).

In March 2015, EPA promulgated a rule implementing the 2008 ozone NAAQS, which included the IPT program. 80 FR 12,264 (Mar. 6, 2015). IPT allowed the offset requirement to be satisfied by trading reductions in emissions of ozone precursors (volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>)). Because

reductions in the emissions of one precursor are not always equivalent in terms of the level of atmospheric ozone reduced, the IPT rule required states to establish appropriate trading ratios.

Several petitioners challenged various portions of this 2015 implementation rule and the D.C. Circuit Court of Appeals resolved all but one of these challenges in *South Coast Air Quality Management District v. EPA*. 882 F.3d 1137 (D.C. Cir., 2018) (*South Coast II*). The one remaining challenge related to the IPT program. While the case was pending, EPA granted an administrative petition to reconsider the IPT program. As a result of the administrative petition the *South Coast II* Court severed the challenge to the IPT program, leaving it unresolved. The pending parts of this case were eventually consolidated with a subsequent law suit, challenging the 2018 ozone implementation rule discussed below.

In October 2015, EPA promulgated a new NAAQS for ozone, lowering the standard to 70 ppb. 80 FR 65,292 (Oct. 26, 2015).

On February 10, 2017, ADEQ amended R18-2-404(a), among other rules, to allow for ozone IPT in order to comply with federal requirements, including but not limited to the 2008 ozone NAAQS implementation rule. 23 A.A.R. 333 (Feb. 10, 2017).

On December 6, 2018, EPA promulgated its final implementation rule for the 2015 ozone NAAQS. 83 FR 62,998 (Dec. 8, 2018). This rule included IPT for ozone precursors, NO<sub>x</sub> and VOCs. *Id.* at 63,016. This rule was subsequently challenged in the D.C. Circuit Court of Appeals.

On January 29, 2021, the D.C. Circuit Court of Appeals vacated the IPT program, as a part of EPA's implementation of the 2015 ozone NAAQS. *Sierra Club v. EPA*, 985 F.3d 1055 (D.C. Cir., 2021). The Court held that EPA's IPT program violated the unambiguous language of the CAA. *Id.* Therefore, to comply with both the NSR requirements (40 C.F.R. § 51.1314) and the *Sierra Club v. EPA* ruling, ADEQ is required to remove the ozone IPT program from its rules.

On or before April 29, 2021, the last day for EPA to petition the U.S. Supreme Court to review the D.C. Circuit Court's decision, EPA did not file a petition for certiorari, and therefore *Sierra Club v. EPA* ruling is no longer appealable. 28 U.S.C. § 2101(c). Therefore, ADEQ is proposing to amend R18-2-404(A) to remove the language allowing the inter-precursor trading of ozone precursors (NO<sub>x</sub> and VOCs) at this time because the litigation is resolved.

#### **Section by Section Explanation of Proposed Rules:**

- |           |   |
|-----------|---|
| R18-2-101 | ADEQ proposes to amend the definition of "municipal incinerator" (R18-2-101(23)(h)) to change the charging capacity from two hundred and fifty (250) tons per day to fifty (50) tons per day. |
| R18-2-404 | ADEQ proposes to amend R18-2-404(A) to remove the ozone IPT program.  |

**6. 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:**

Not applicable.

**7. 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.

**8. The preliminary summary of the economic, small business, and consumer impact:**

Not applicable. The agency is exempt from the requirements to prepare and file an economic, small business, and consumer impact statement under A.R.S. § 41-1055(D)(2).

**9. The agency's contact person who can answer questions about the economic, small business, and consumer impact statement:**

Not applicable.

**10. The time, place, and nature of the proceedings to make, amend, repeal, or renumber the rule, or if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:**

The public comment period for this rulemaking will take place between: December 30, 2021 and January 31, 2022. The public comment period will close January 31, 2022.

ADEQ will be conducting stakeholder and public hearings to receive feedback, comments, questions, and concerns on the proposed rule revisions. All interested parties may attend. Due to the on-going COVID-19 pandemic, the public hearing will be held virtually/telephonically. The access information is below:

Date: January 31, 2022

Time: 11:00 A.M.

Location: GoToWebinar hosted by Arizona Department of Environmental Quality at:

<https://attendee.gotowebinar.com/register/1372911111052591376>

You can also dial in using your phone.

United States: +1 (415) 655-0052

Access Code: 213-350-998

Nature: Public hearing on the proposed rule.

**11. 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:**

There are no other matters prescribed by statutes applicable specifically to ADEQ or this specific rulemaking.

**a. Whether the rule requires a permit, license, or agency authorization under A.R.S. § 41-1037(A), whether a general permit is used and if not, the reasons why a general permit is not used:**

This proposed rule amendment will not require any permits as it is to comply with CAA NSR regulations for any applicable new construction or major modification of a stationary source that falls under ADEQ's jurisdiction. Federal law does not allow for the enforcement of major NSR requirements through the issuance of permits, because major NSR requires case-by-case, facility specific determinations.

**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 federal CAA and implementing regulations adopted by EPA apply to the subject of this rule, as described in section 5 above. This rulemaking is no more stringent than required by 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:**

Not applicable.

**12. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:**

None.

**13. The full text of the rules follows:**

**TITLE 18. ENVIRONMENTAL QUALITY**

**CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR POLLUTION CONTROL**

**ARTICLE 1. GENERAL**

Section

R18-2-101. Definitions

**ARTICLE 4. PERMIT REQUIREMENTS FOR NEW MAJOR SOURCES AND MAJOR MODIFICATIONS TO EXISTING MAJOR SOURCES**

Section

R18-2-404. Offset Standards

**ARTICLE 1. GENERAL**

**R18-2-101. Definitions**

The following definitions apply to this Chapter. Where the same term is defined in this Section and in the definitions Section for an Article of this Chapter, the Article-specific definition shall apply.

1. "Act" means the Clean Air Act of 1963 (P.L. 88-206; 42 U.S.C. 7401 through 7671q) as amended through December 31, 2011 (and no future editions).
2. "Actual emissions" means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in subsections (2)(a) through (e), except that this definition shall not apply for calculating whether a significant emissions increase as defined in R18-2-401 has occurred, or for establishing a plantwide applicability limitation as defined in R18-2-401. Instead, the definitions of projected actual emissions and baseline actual emissions in R18-2-401 shall apply for those purposes.
  - a. In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period that precedes the particular date and that is representative of normal source operation. The Director may allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored or combusted during the selected time period.
  - b. The Director may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
  - c. For any emissions unit that is or will be located at a source with a Class I permit and has not begun normal operations on the particular date, actual emissions shall equal the unit's potential to emit on that date.
  - d. For any emissions unit that is or will be located at a source with a Class II permit and has not begun normal operations on the particular date, actual emissions shall be based on applicable control equipment requirements and projected conditions of operation.

- e. This definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL. Instead, the definitions of projected actual emissions and baseline actual emissions in R18-2-401 shall apply for those purposes.
- 3. “Administrator” means the Administrator of the United States Environmental Protection Agency.
- 4. “Affected facility” means, with reference to a stationary source, any apparatus to which a standard is applicable.
- 5. “Affected source” means a source that includes one or more units which are subject to emission reduction requirements or limitations under Title IV of the Act.
- 6. “Affected state” means any state whose air quality may be affected by a source applying for a permit, permit revision, or permit renewal and that is contiguous to Arizona or that is within 50 miles of the permitted source.
- 7. “Afterburner” means an incinerator installed in the secondary combustion chamber or stack for the purpose of incinerating smoke, fumes, gases, unburned carbon, and other combustible material not consumed during primary combustion.
- 8. “Air contaminants” means smoke, vapors, charred paper, dust, soot, grime, carbon, fumes, gases, sulfuric acid mist aerosols, aerosol droplets, odors, particulate matter, wind-borne matter, radioactive materials, or noxious chemicals, or any other material in the outdoor atmosphere.
- 9. “Air curtain destructor” means an incineration device designed and used to secure, by means of a fan-generated air curtain, controlled combustion of only wood waste and slash materials in an earthen trench or refractory-lined pit or bin.
- 10. *“Air pollution” means the presence in the outdoor atmosphere of one or more air contaminants or combinations thereof in sufficient quantities, which either alone or in connection with other substances by reason of their concentration and duration are or tend to be injurious to human, plant or animal life, or cause damage to property, or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the director. A.R.S. § 49-421(2).*
- 11. “Air pollution control equipment” means equipment used to eliminate, reduce or control the emission of air pollutants into the ambient air.
- 12. “Air quality control region” (AQCR) means an area so designated by the Administrator pursuant to Section 107 of the Act and includes the following regions in Arizona:
  - a. Maricopa Intrastate Air Quality Control Region which is comprised of the County of Maricopa.
  - b. Pima Intrastate Air Quality Control Region which is comprised of the County of Pima.
  - c. Northern Arizona Intrastate Air Quality Control Region which encompasses the counties of Apache, Coconino, Navajo, and Yavapai.

- d. Mohave-Yuma Intrastate Air Quality Control Region which encompasses the counties of La Paz, Mohave, and Yuma.
  - e. Central Arizona Intrastate Air Quality Control Region which encompasses the counties of Gila and Pinal.
  - f. Southeast Arizona Intrastate Air Quality Control Region which encompasses the counties of Cochise, Graham, Greenlee, and Santa Cruz.
13. "Allowable emissions" means the emission rate of a stationary source calculated using both the maximum rated capacity of the source, unless the source is subject to federally enforceable limits which restrict the operating rate or hours of operation, and the most stringent of the following:
    - a. The applicable standards as set forth in 40 CFR 60, 61 and 63;
    - b. The applicable emissions limitations approved into the state implementation plan, including those with a future compliance date; or,
    - c. The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.
  14. "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.
  15. "Applicable implementation plan" means those provisions of the state implementation plan approved by the Administrator or a federal implementation plan promulgated for Arizona or any portion of Arizona in accordance with Title I of the Act.
  16. "Applicable requirement" means any of the following:
    - a. Any federal applicable requirement.
    - b. Any other requirement established pursuant to this Chapter or A.R.S. Title 49, Chapter 3.
  17. "Arizona Testing Manual" means sections 1 and 7 of the Arizona Testing Manual for Air Pollutant Emissions amended as of March 1992 (and no future editions).
  18. "ASTM" means the American Society for Testing and Materials.
  19. "Attainment area" means any area that has been identified in regulations promulgated by the Administrator as being in compliance with national ambient air quality standards.
  20. "*Begin actual construction*" means, *initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. With respect to a change in method of operation this term refers to those onsite activities, other than preparatory activities, which mark the initiation of the change.*
    - a. For purposes of title I, parts C and D and section 112 of the clean air act, and for purposes of applicants that require permits containing limits designed to avoid the application of title I, parts C and D and section 112 of the clean air act, these activities include installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures but do not include any of the following, subject to subsection (20)(c):

- i. Clearing and grading, including demolition and removal of existing structures and equipment, stripping and stockpiling of topsoil.
    - ii. Installation of access roads, driveways and parking lots.
    - iii. Installation of ancillary structures, including fences, office buildings and temporary storage structures, that are not a necessary component of an emissions unit or associated air pollution control equipment for which the permit is required.
    - iv. Ordering and onsite storage of materials and equipment.
  - b. For purposes other than those identified in subsection (20)(a), these activities do not include any of the following, subject to subsection (20)(c):
    - i. Clearing and grading, including demolition and removal of existing structures and equipment, stripping and stockpiling of topsoil and earthwork cut and fill for foundations.
    - ii. Installation of access roads, parking lots, driveways and storage areas.
    - iii. Installation of ancillary structures, including fences, warehouses, storerooms and office buildings, provided none of these structures impacts the design of any emissions unit or associated air pollution control equipment.
    - iv. Ordering and onsite storage of materials and equipment.
    - v. Installation of underground pipework, including water, sewer, electric and telecommunications utilities.
    - vi. Installation of building and equipment supports, including concrete forms, footers, pilings, foundations, pads and platforms, provided none of these supports impacts the design of any emissions unit or associated air pollution control equipment.
  - c. An applicant's performance of any activities that are excluded from the definition of "begin actual construction" under subsection (20)(a) or (b) shall be at the applicant's risk and shall not reduce the applicant's obligations under this Chapter. The director shall evaluate an application for a permit or permit revision and make a decision on the same basis as if the activities allowed under subsection (20)(a) or (b) had not occurred. A.R.S. § 49-401.01(7).
21. "Best available control technology" (BACT) means an emission limitation, including a visible emissions standard, based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major source or major modification, taking into account energy, environmental, and economic impact and other costs, determined by the Director in accordance with R18-2-406(A)(4) to be achievable for such source or modification.
22. "Btu" means British thermal unit, which is the quantity of heat required to raise the temperature of one pound of water 1°F.
23. "Categorical sources" means the following classes of sources:
  - a. Coal cleaning plants with thermal dryers;

- b. Kraft pulp mills;
- c. Portland cement plants;
- d. Primary zinc smelters;
- e. Iron and steel mills;
- f. Primary aluminum ore reduction plants;
- g. Primary copper smelters;
- h. Municipal incinerators capable of charging more than ~~250~~ 50 tons of refuse per day;
- i. Hydrofluoric, sulfuric, or nitric acid plants;
- j. Petroleum refineries;
- k. Lime plants;
- l. Phosphate rock processing plants;
- m. Coke oven batteries;
- n. Sulfur recovery plants;
- o. Carbon black plants using the furnace process;
- p. Primary lead smelters;
- q. Fuel conversion plants;
- r. Sintering plants;
- s. Secondary metal production plants;
- t. Chemical process plants, which shall not include ethanol production facilities that produce ethanol by natural fermentation included in North American Industry Classification System codes 325193 or 312140;
- u. Fossil-fuel boilers, combinations thereof, totaling more than 250 million Btus per hour heat input;
- v. Petroleum storage and transfer units with a total storage capacity more than 300,000 barrels;
- w. Taconite ore processing plants;
- x. Glass fiber processing plants;
- y. Charcoal production plants;
- z. Fossil-fuel-fired steam electric plants and combined cycle gas turbines of more than 250 million Btus per hour heat input.

24. "Categorically exempt activities" means any of the following:

- a. Any combination of diesel-, natural gas- or gasoline-fired engines with cumulative power equal to or less than 145 horsepower.
- b. Natural gas-fired engines with cumulative power equal to or less than 155 horsepower.
- c. Gasoline-fired engines with cumulative power equal to or less than 200 horsepower.
- d. Any of the following emergency or stand-by engines used for less than 500 hours in each calendar year, provided the permittee keeps records documenting the hours of operation of the engines:

- i. Any combination of diesel-, natural gas- or gasoline-fired emergency engines with cumulative power equal to or less than 2,500 horsepower.
    - ii. Natural gas-fired emergency engines with cumulative power equal to or less than 2,700 horsepower.
    - iii. Gasoline-fired emergency engines with cumulative power equal to or less than 3,700 horsepower.
  - e. Any combination of boilers with a cumulative maximum design heat input capacity of less than 10 million Btu/hr.
25. “CFR” means the Code of Federal Regulations, amended as of July 1, 2011, (and no future editions), with standard references in this Chapter by Title and Part, so that “40 CFR 51” means Title 40 of the Code of Federal Regulations, Part 51.
26. “Charge” means the addition of metal bearing materials, scrap, or fluxes to a furnace, converter or refining vessel.
27. “Clean coal technology” means any technology, including technologies applied at the precombustion, combustion, or post-combustion stage, at a new or existing facility that will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam, that was not in widespread use as of November 15, 1990.
28. “Clean coal technology demonstration project” means a project using funds appropriated under the heading “Department of Energy - Clean Coal Technology,” up to a total amount of \$2,500,000,000 for commercial demonstration of clean coal technology or similar projects funded through appropriations for the Environmental Protection Agency. The federal contribution for a qualifying project shall be at least 20% of the total cost of the demonstration project.
29. “Coal” means all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D-388-91, (Classification of Coals by Rank).
30. “Combustion” means the burning of matter.
31. “Commence” means, as applied to construction of a source, or a major modification as defined in Article 4 of this Chapter, that the owner or operator has all necessary preconstruction approvals or permits and either has:
- a. Begun, or caused to begin, a continuous program of actual onsite construction of the source, to be completed within a reasonable time; or
  - b. Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.
32. “Construction” means any physical change or change in the method of operation, including fabrication, erection, installation, demolition, or modification of an emissions unit, which would result in a change in emissions.

33. "Continuous monitoring system" means a CEMS, CERMS, or CPMS.
34. "Continuous emissions monitoring system" or "CEMS" means the total equipment, required under the emission monitoring provisions in this Chapter, used to sample, condition (if applicable), analyze, and provide, on a continuous basis, a permanent record of emissions.
35. "Continuous emissions rate monitoring system" or "CERMS" means the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).
36. "Continuous parameter monitoring system" or "CPMS" means the total equipment, required under the emission monitoring provisions in this Chapter, to monitor process or control device operational parameters (for example, control device secondary voltages and electric currents) or other information (for example, gas flow rate, O<sub>2</sub> or CO<sub>2</sub> concentrations) and to provide, on a continuous basis, a permanent record of monitored values.
37. "Controlled atmosphere incinerator" means one or more refractory-lined chambers in which complete combustion is promoted by recirculation of gases by mechanical means.
38. "*Conventional air pollutant*" means any pollutant for which the Administrator has promulgated a primary or secondary national ambient air quality standard. A.R.S. § 49-401.01(12).
39. "*Department*" means the Department of Environmental Quality. A.R.S. § 49-101(2)
40. "*Director*" means the director of environmental quality who is also the director of the department. A.R.S. § 49-101(3)
41. "Discharge" means the release or escape of an effluent from a source into the atmosphere.
42. "Dust" means finely divided solid particulate matter occurring naturally or created by mechanical processing, handling or storage of materials in the solid state.
43. "Dust suppressant" means a chemical compound or mixture of chemical compounds added with or without water to a dust source for purposes of preventing air entrainment.
44. "Effluent" means any air contaminant which is emitted and subsequently escapes into the atmosphere.
45. "Electric utility steam generating unit" means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.
46. "Emission" means an air contaminant or gas stream, or the act of discharging an air contaminant or a gas stream, visible or invisible.
47. "Emission standard" or "emission limitation" means a requirement established by the state, a local government, or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe

equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

48. "Emissions unit" means any part of a stationary source which emits or would have the potential to emit any regulated air pollutant and includes an electric steam generating unit.
49. "Equivalent method" means any method of sampling and analyzing for an air pollutant which has been demonstrated under R18-2-311(D) to have a consistent and quantitatively known relationship to the reference method, under specified conditions.
50. "Excess emissions" means emissions of an air pollutant in excess of an emission standard as measured by the compliance test method applicable to such emission standard.
51. "Federal applicable requirement" means any of the following (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance but have future effective compliance dates):
  - a. Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under Title I of the Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in 40 CFR 52.
  - b. Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under Title I, including parts C or D, of the Act.
  - c. Any standard or other requirement under section 111 of the Act, including 111(d).
  - d. Any standard or other requirement under section 112 of the Act, including any requirement concerning accident prevention under section 112(r)(7) of the Act.
  - e. Any standard or other requirement of the acid rain program under Title IV of the Act or the regulations promulgated thereunder and incorporated pursuant to R18-2-333.
  - f. Any requirements established pursuant to section 504(b) or section 114(a)(3) of the Act.
  - g. Any standard or other requirement governing solid waste incineration, under section 129 of the Act.
  - h. Any standard or other requirement for consumer and commercial products, under section 183(e) of the Act.
  - i. Any standard or other requirement for tank vessels under section 183(f) of the Act.
  - j. Any standard or other requirement of the program to control air pollution from outer continental shelf sources, under section 328 of the Act.
  - k. Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V permit.
  - l. Any national ambient air quality standard or maximum increase allowed under R18-2-218 or visibility requirement under Part C of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to section 504(e) of the Act.

52. “Federal Land Manager” means, with respect to any lands in the United States, the secretary of the department with authority over such lands.
53. “Federally enforceable” means all limitations and conditions which are enforceable by the Administrator under the Act, including all of the following:
- a. The requirements of the new source performance standards and national emission standards for hazardous air pollutants.
  - b. The requirements of such other state or county rules or regulations approved by the Administrator, including the requirements of state and county operating and new source review permit and registration programs that have been approved by the Administrator. Notwithstanding this subsection, the condition of any permit or registration designated as being enforceable only by the state is not federally enforceable.
  - c. The requirements of any applicable implementation plan.
  - d. Emissions limitations, controls, and other requirements, and any associated monitoring, recordkeeping, and reporting requirements that are included in a permit pursuant to R18-2-306.01 or R18-2-306.02.
54. “Federally listed hazardous air pollutant” means a pollutant listed pursuant to R18-2-1701(9).
55. “Final permit” means the version of a permit issued by the Department after completion of all review required by this Chapter.
56. “Fixed capital cost” means the capital needed to provide all the depreciable components.
57. “Fuel” means any material which is burned for the purpose of producing energy.
58. “Fuel burning equipment” means any machine, equipment, incinerator, device or other article, except stationary rotating machinery, in which combustion takes place.
59. “Fugitive emissions” means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
60. “Fume” means solid particulate matter resulting from the condensation and subsequent solidification of vapors of melted solid materials.
61. “Fume incinerator” means a device similar to an afterburner installed for the purpose of incinerating fumes, gases and other finely divided combustible particulate matter not previously burned.
62. “Good engineering practice (GEP) stack height” means a stack height meeting the requirements described in R18-2-332.
63. “Hazardous air pollutant” means any federally listed hazardous air pollutant.
64. “Heat input” means the quantity of heat in terms of Btus generated by fuels fed into the fuel burning equipment under conditions of complete combustion.

65. “Incinerator” means any equipment, machine, device, contrivance or other article, and all appurtenances thereof, used for the combustion of refuse, salvage materials or any other combustible material except fossil fuels, for the purpose of reducing the volume of material.
66. “Indian governing body” means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.
67. “Indian reservation” means any federally recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.
68. “Insignificant activity” means any of the following activities:
- a. Liquid Storage and Piping
    - i. Petroleum product storage tanks containing the following substances, provided the applicant lists and identifies the contents of each tank with a volume of 350 gallons or more and provides threshold values for throughput or capacity or both for each such tank: diesel fuels and fuel oil in storage tanks with capacity of 40,000 gallons or less, lubricating oil, transformer oil, and used oil.
    - ii. Gasoline storage tanks with capacity of 10,000 gallons or less.
    - iii. Storage and piping of natural gas, butane, propane, or liquified petroleum gas, provided the applicant lists and identifies the contents of each stationary storage vessel with a volume of 350 gallons or more and provides threshold values for throughput or capacity or both for each such vessel.
    - iv. Piping of fuel oils, used oil and transformer oil, provided the applicant includes a system description.
    - v. Storage and handling of drums or other transportable containers where the containers are sealed during storage, and covered during loading and unloading, including containers of waste and used oil regulated under the federal Resource Conservation and Recovery Act, 42 U.S.C. 6901-6992(k). Permit applicants must provide a description of material in the containers and the approximate amount stored.
    - vi. Storage tanks of any size containing exclusively soaps, detergents, waxes, greases, aqueous salt solutions, aqueous solutions of acids that are not regulated air pollutants, or aqueous caustic solutions, provided the permit applicant specifies the contents of each storage tank with a volume of 350 gallons or more.
    - vii. Electrical transformer oil pumping, cleaning, filtering, drying and the re-installation of oil back into transformers.
  - b. Internal combustion engine-driven compressors, internal combustion engine-driven electrical generator sets, and internal combustion engine-driven water pumps used for less than 500 hours per

calendar year for emergency replacement or standby service, provided the permittee keeps records documenting the hours of operation of this equipment.

c. Low Emitting Processes

- i. Batch mixers with rated capacity of 5 cubic feet or less.
- ii. Wet sand and gravel production facilities that obtain material from subterranean and subaqueous beds, whose production rate is 200 tons/hour or less, and whose permanent in-plant roads are paved and cleaned to control dust. This does not include activities in emissions units which are used to crush or grind any non-metallic minerals.
- iii. Powder coating operations.
- iv. Equipment using water, water and soap or detergent, or a suspension of abrasives in water for purposes of cleaning or finishing.
- v. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system or collector serving them exclusively.
- vi. Plastic pipe welding.

d. Site Maintenance

- i. Housekeeping activities and associated products used for cleaning purposes, including collecting spilled and accumulated materials at the source, including operation of fixed vacuum cleaning systems specifically for such purposes.
- ii. Sanding of streets and roads to abate traffic hazards caused by ice and snow.
- iii. Street and parking lot striping.
- iv. Architectural painting and associated surface preparation for maintenance purposes at industrial or commercial facilities.

e. Sampling and Testing

- i. Noncommercial (in-house) experimental, analytical laboratory equipment which is bench scale in nature, including quality control/quality assurance laboratories supporting a stationary source and research and development laboratories.
- ii. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units.

f. Ancillary Non-Industrial Activities

- i. General office activities, such as paper shredding, copying, photographic activities, and blueprinting, but not to include incineration.
- ii. Use of consumer products, including hazardous substances as that term is defined in the Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) where the product is used at a source in the same manner as normal consumer use.

- iii. Activities directly used in the diagnosis and treatment of disease, injury or other medical condition.
- g. Miscellaneous Activities
  - i. Installation and operation of potable, process and waste water observation wells, including drilling, pumping, filtering apparatus.
  - ii. Transformer vents.
- 69. “Kraft pulp mill” means any stationary source which produces pulp from wood by cooking or digesting wood chips in a water solution of sodium hydroxide and sodium sulfide at high temperature and pressure. Regeneration of the cooking chemicals through a recovery process is also considered part of the kraft pulp mill.
- 70. “Lead” means elemental lead or alloys in which the predominant component is lead.
- 71. “Lime hydrator” means a unit used to produce hydrated lime product.
- 72. “Lime plant” includes any plant which produces a lime product from limestone by calcination. Hydration of the lime product is also considered to be part of the source.
- 73. “Lime product” means any product produced by the calcination of limestone.
- 74. “Major modification” is defined as follows:
  - a. A major modification is any physical change in or change in the method of operation of a major source that would result in both a significant emissions increase of any regulated NSR pollutant and a significant net emissions increase of that pollutant from the stationary source.
  - b. Any emissions increase or net emissions increase that is significant for nitrogen oxides or volatile organic compounds is significant for ozone.
  - c. For the purposes of this definition, none of the following is a physical change or change in the method of operation:
    - i. Routine maintenance, repair, and replacement;
    - ii. Use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. 792, or by reason of a natural gas curtailment plan under the Federal Power Act, 16 U.S.C. 792 - 825r;
    - iii. Use of an alternative fuel by reason of an order or rule under section 125 of the Act;
    - iv. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
    - v. For purposes of determining the applicability of R18-2-403 through R18-2-405 or R18-2-411, any of the following:
      - (1) Use of an alternative fuel or raw material by a stationary source that the source was capable of accommodating before December 21, 1976, unless the change would be prohibited under

- any federally enforceable permit condition established after December 12, 1976 under 40 CFR 52.21 or under Articles 3 or 4 of this Chapter; or
  - (2) Use of an alternative fuel or raw material by a stationary source that the source is approved to use under any permit issued under R18-2-403;
  - (3) An increase in the hours of operation or in the production rate, unless the change would be prohibited under any federally enforceable permit condition established after December 21, 1976, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter.
- vi. For purposes of determining the applicability of R18-2-406 through R18-2-408 or R18-2-410, any of the following:
- (1) Use of an alternative fuel or raw material by a stationary source that the source was capable of accommodating before January 6, 1975, unless the change would be prohibited under any federally enforceable permit condition established after January 6, 1975 under 40 CFR 52.21 or under Articles 3 or 4 of this Chapter;
  - (2) Use of an alternative fuel or raw material by a stationary source that the source is approved to use under any permit issued under 40 CFR 52.21, or under R18-2-406; or
  - (3) An increase in the hours of operation or in the production rate, unless the change would be prohibited under any federally enforceable permit condition established after January 6, 1975, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter.
- vii. Any change in ownership at a stationary source;
- viii. [Reserved.]
- ix. The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, if the project complies with:
- (1) The SIP, and
  - (2) Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated;
- x. For electric utility steam generating units located in attainment and unclassifiable areas only, the installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, if the project does not result in an increase in the potential to emit any regulated pollutant emitted by the unit. This exemption applies on a pollutant-by-pollutant basis; and
- xi. For electric utility steam generating units located in attainment and unclassifiable areas only, the reactivation of a very clean coal-fired electric utility steam generating unit.
- d. This definition shall not apply with respect to a particular regulated NSR pollutant when the major source is complying with the requirements of R18-2-412 for a PAL for that regulated NSR pollutant. Instead, the definition of PAL major modification in R18-2-401(20) shall apply.

75. “Major source” means:
- a. A major source as defined in R18-2-401.
  - b. A major source under section 112 of the Act:
    - i. For pollutants other than radionuclides, any stationary source that emits or has the potential to emit, in the aggregate, including fugitive emission 10 tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to section 112(b) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as described in Article 11 of this Chapter. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or
    - ii. For radionuclides, “major source” shall have the meaning specified by the Administrator by rule.
  - c. A major stationary source, as defined in section 302 of the Act, that directly emits or has the potential to emit, 100 tpy or more of any air pollutant including any major source of fugitive emissions of any such pollutant. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of section 302(j) of the Act, unless the source belongs to a section 302(j) category.
76. “Malfunction” means any sudden and unavoidable failure of air pollution control equipment, process equipment or a process to operate in a normal and usual manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care.
77. “Minor source” means a source of air pollution which is not a major source for the purposes of Article 4 of this Chapter and over which the Director, acting pursuant to A.R.S. § 49-402(B), has asserted jurisdiction.
78. “Minor source baseline area” means the air quality control region in which the source is located.
79. “*Mobile source*” means any combustion engine, device, machine or equipment that operates during transport and that emits or generates air contaminants whether in motion or at rest. A.R.S. § 49-401.01(23).
80. “*Modification*” or “*modify*” means a physical change in or change in the method of operation of a source that increases the emissions of any regulated air pollutant emitted by such source by more than any relevant *de minimis* amount or that results in the emission of any regulated air pollutant not previously emitted by more than such *de minimis* amount. An increase in emissions at a minor source shall be determined by comparing the source’s potential to emit before and after the modification. The following exemptions apply:

- a. A physical or operational change does not include routine maintenance, repair or replacement.
  - b. An increase in the hours of operation or if the production rate is not considered an operational change unless such increase is prohibited under any permit condition that is legally and practically enforceable by the department.
  - c. A change in ownership at a source is not considered a modification. A.R.S. § 49-401.01(24).
81. “Monitoring device” means the total equipment, required under the applicable provisions of this Chapter, used to measure and record, if applicable, process parameters.
82. “Motor vehicle” means any self-propelled vehicle designed for transporting persons or property on public highways.
83. “Multiple chamber incinerator” means three or more refractory-lined combustion chambers in series, physically separated by refractory walls and interconnected by gas passage ports or ducts.
84. “Natural conditions” includes naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration.
85. “*National ambient air quality standard*” means the ambient air pollutant concentration limits established by the Administrator pursuant to section 109 of the Act. A.R.S. § 49-401.01(25).
86. “National emission standards for hazardous air pollutants” or “NESHAP” means standards adopted by the Administrator under section 112 of the Act.
87. “Necessary preconstruction approvals or permits” means those permits or approvals required under the Act and those air quality control laws and rules which are part of the SIP.
88. “Net emissions increase” means:
- a. The amount by which the sum of subsections (88)(a)(i) and (ii) exceeds zero:
    - i. The increase in emissions of a regulated NSR pollutant from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to R18-2-402(D); and
    - ii. Any other increases and decreases in actual emissions of the regulated NSR pollutant at the source that are contemporaneous with the particular change and are otherwise creditable.
    - iii. For purposes of calculating increases and decreases in actual emissions under subsection (88)(a)(ii), baseline actual emissions shall be determined as provided in the definition of baseline actual emissions in R18-2-401(2), except that R18-2-401(2)(a)(iii) and (b)(iv) shall not apply.
  - b. An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:
    - i. The date five years before a complete application for a permit or permit revision authorizing the particular change is submitted or actual construction of the particular change begins, whichever occurs earlier, and
    - ii. The date that the increase from the particular change occurs.

- c. For purposes of determining the applicability of R18-2-403 through R18-2-405 or R18-2-411, an increase or decrease in actual emissions is creditable only if the Director has not relied on it in issuing a permit or permit revision under R18-2-403, which permit is in effect when the increase in actual emissions from the particular change occurs. For purposes of determining the applicability of R18-2-406 through R18-2-408 or R18-2-410, an increase or decrease in actual emissions is creditable only if the Director has not relied on it in issuing a permit under R18-2-406, which permit is in effect when the increase in actual emissions from the particular change occurs.
  - d. An increase or decrease in actual emissions of sulfur dioxide, nitrogen oxides, PM<sub>10</sub>, or PM<sub>2.5</sub> which occurs before the applicable minor source baseline date, as defined in R18-2-218, is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available.
  - e. An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
  - f. A decrease in actual emissions is creditable only to the extent that it satisfies all of the following conditions:
    - i. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions.
    - ii. It is enforceable as a practical matter at and after the time that actual construction on the particular change begins.
    - iii. It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.
    - iv. The emissions unit was actually operated and emitted the specific pollutant.
    - v. For purposes of determining the applicability of R18-2-403 through R18-2-405 or R18-2-411, the Director has not relied on it in issuing any permit, permit revision, or registration under Article 4, R18-2-302.01, (or) R18-2-334, and the state has not relied on it in demonstrating attainment or reasonable further progress.
  - g. An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit, as defined in R18-2-401(24), that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
  - h. Subsection (2)(a) shall not apply for determining creditable increases and decreases.
89. "New source" means any stationary source of air pollution which is subject to a new source performance standard.
90. "New source performance standards" or "NSPS" means standards adopted by the Administrator under section 111(b) of the Act.

91. "Nitric acid plant" means any facility producing nitric acid 30% to 70% in strength by either the pressure or atmospheric pressure process.
92. "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in the Appendices to 40 CFR 60.
93. "Nonattainment area" means an area so designated by the Administrator acting pursuant to section 107 of the Act as exceeding national primary or secondary ambient air standards for a particular pollutant or pollutants.
94. "Nonpoint source" means a source of air contaminants which lacks an identifiable plume or emission point.
95. "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.
96. "Operation" means any physical or chemical action resulting in the change in location, form, physical properties, or chemical character of a material.
97. "Owner or operator" means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source.
98. "Particulate matter" means any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.
99. "Particulate matter emissions" means all finely divided solid or liquid materials other than uncombined water, emitted to the ambient air as measured by applicable test methods and procedures described in R18-2-311.
100. *"Permitting authority" means the department or a county department, agency or air pollution control district that is charged with enforcing a permit program adopted pursuant to A.R.S. § 49-480(A). A.R.S. § 49-401.01(28).*
101. "Permitting exemption thresholds" for a regulated minor NSR pollutant means the following:

Regulated Air Pollutant	Emission Rate in tons
PM <sub>2.5</sub> (primary emissions and precursors are set by rule)	5
PM <sub>10</sub>	7.5
SO <sub>2</sub>	20
NO <sub>x</sub>	20
VOC	20
CO	50
Pb	0.3

102. "Person" means any public or private corporation, company, partnership, firm, association or society of persons, the federal government and any of its departments or agencies, the state and any of its agencies, departments or political subdivisions, as well as a natural person.
103. *"Planning agency" means an organization designated by the governor pursuant to 42 U.S.C. 7504. A.R.S. § 49-401.01(29).*

104. “PM<sub>2.5</sub>” means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR 50 Appendix L, or by an equivalent method designated according to 40 CFR 53.
105. “PM<sub>10</sub>” means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method contained within 40 CFR 50 Appendix J or by an equivalent method designated in accordance with 40 CFR 53.
106. “PM<sub>10</sub> emissions” means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by applicable test methods and procedures described in R18-2-311.
107. “Plume” means visible effluent.
108. “Pollutant” means an air contaminant the emission or ambient concentration of which is regulated pursuant to this Chapter.
109. “Portable source” means any stationary source that is capable of being operated at more than one location.
110. “Potential to emit” or “potential emission rate” means the maximum capacity of a stationary source to emit a pollutant, excluding secondary emissions, under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is legally and practically enforceable by the Department or a county under A.R.S. Title 49, Chapter 3; any rule, ordinance, order or permit adopted or issued under A.R.S. Title 49, Chapter 3 or the state implementation plan.
111. “Predictive Emissions Monitoring System” or “PEMS” means the total equipment, required under the emission monitoring provisions in this Chapter, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O<sub>2</sub> or CO<sub>2</sub> concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.
112. “Primary ambient air quality standards” means the ambient air quality standards which define levels of air quality necessary, with an adequate margin of safety, to protect the public health, as specified in Article 2 of this Chapter.
113. “Process” means one or more operations, including equipment and technology, used in the production of goods or services or the control of by-products or waste.
114. “Project” means a physical change in, or change in the method of operation of, an existing major source.

115. “Proposed final permit” means the version of a Class I permit or Class I permit revision that the Department proposes to issue and forwards to the Administrator for review in compliance with R18-2-307(A). A proposed final permit constitutes a final and enforceable authorization to begin actual construction of, but not to operate, a new Class I source or a modification to a Class I source.
116. “Proposed permit” means the version of a permit for which the Director offers public participation under R18-2-330 or affected state review under R18-2-307(D).
117. “Reactivation of a very clean coal-fired electric utility steam generating unit” means any physical change or change in the method of operation associated with commencing commercial operations by a coal-fired utility unit after a period of discontinued operation if the unit:
- a. Has not been in operation for the two-year period before enactment of the Clean Air Act Amendments of 1990, and the emissions from the unit continue to be carried in the Director’s emissions inventory at the time of enactment;
  - b. Was equipped before shutdown with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85% and a removal efficiency for particulates of no less than 98%;
  - c. Is equipped with low-NO<sub>x</sub> burners before commencement of operations following reactivation; and
  - d. Is otherwise in compliance with the Act.
118. “Reasonable further progress” means the schedule of emission reductions defined within a nonattainment area plan as being necessary to come into compliance with a national ambient air quality standard by the primary standard attainment date.
119. “Reasonably available control technology” (RACT) means devices, systems, process modifications, work practices or other apparatus or techniques that are determined by the Director to be reasonably available taking into account:
- a. The necessity of imposing the controls in order to attain and maintain a national ambient air quality standard;
  - b. The social, environmental, energy and economic impact of the controls;
  - c. Control technology in use by similar sources; and
  - d. The capital and operating costs and technical feasibility of the controls.
120. “Reclaiming machinery” means any machine, equipment device or other article used for picking up stored granular material and either depositing this material on a conveyor or reintroducing this material into the process.
121. “Reference method” means the methods of sampling and analyzing for an air pollutant as described in the Arizona Testing Manual; 40 CFR 50, Appendices A through K; 40 CFR 51, Appendix M; 40 CFR 52, Appendices D and E; 40 CFR 60, Appendices A through F; and 40 CFR 61, Appendices B and C, as incorporated by reference in 18 A.A.C. 2, Appendix 2.

122. “Regulated air pollutant” means any of the following:
- a. Any conventional air pollutant.
  - b. Nitrogen oxides and volatile organic compounds.
  - c. Any pollutant that is subject to a new source performance standard.
  - d. Any pollutant that is subject to a national emission standard for hazardous air pollutants or other requirements established under section 112 of the Act, including sections 112(g), (j), and (r), including the following:
    - i. Any pollutant subject to requirements under section 112(j) of the act. If the administrator fails to promulgate a standard by the date established pursuant to section 112(e) of the act, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to section 112(e) of the Act; and
    - ii. Any pollutant for which the requirements of section 112(g)(2) of the Act have been met, but only with respect to the individual source subject to the section 112(g)(2) requirement.
  - e. Any Class I or II substance subject to a standard promulgated under title VI of the Act.
123. “Regulated minor NSR pollutant” means any pollutant for which a national ambient air quality standard has been promulgated and the following precursors for such pollutants:
- a. VOC and nitrogen oxides as precursors to ozone.
  - b. Nitrogen oxides and sulfur dioxide as precursors to PM<sub>2.5</sub>.
124. “Regulated NSR pollutant” is defined as follows:
- a. For purposes of determining the applicability of R18-2-403 through R18-2-405 and R18-2-411, regulated NSR pollutant means any pollutant for which a national ambient air quality standard has been promulgated and any pollutant identified under this subsection as a constituent of or precursor to such pollutant, provided that such constituent or precursor pollutant may only be regulated under NSR as part of the regulation of the general pollutant. Precursors for purposes of NSR are the following:
    - i. Volatile organic compounds and nitrogen oxides are precursors to ozone in all areas.
    - ii. Sulfur dioxide is a precursor to PM<sub>2.5</sub> in all areas.
    - iii. Nitrogen oxides are precursors to PM<sub>2.5</sub> in all areas.
    - iv. VOC and ammonia are precursors to PM<sub>2.5</sub> in PM<sub>2.5</sub> nonattainment areas.
  - b. For all other purposes, regulated NSR pollutant means the pollutants identified in subsection (a) and the following:
    - i. Any pollutant that is subject to any new source performance standard except greenhouse gases as defined in 40 CFR 86.1818-12(a).
    - ii. Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act as of July 1, 2011.

- iii. Any pollutant that is otherwise subject to regulation under the Act, except greenhouse gases as defined in 40 CFR 86.1818-12(a).
  - c. Notwithstanding subsections (124)(a) and (b), the term regulated NSR pollutant shall not include any or all hazardous air pollutants either listed in section 112 of the Act, or added to the list pursuant to section 112(b)(2) of the Act, unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Act.
  - d. PM<sub>2.5</sub> emissions and PM<sub>10</sub> emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. On and after January 1, 2011, condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM<sub>2.5</sub> and PM<sub>10</sub> in permits issued under Article 4.
125. “Repowering” means:
- a. Replacing an existing coal-fired boiler with one of the following clean coal technologies:
    - i. Atmospheric or pressurized fluidized bed combustion;
    - ii. Integrated gasification combined cycle;
    - iii. Magnetohydrodynamics;
    - iv. Direct and indirect coal-fired turbines;
    - v. Integrated gasification fuel cells; or
    - vi. As determined by the Administrator, in consultation with the United States Secretary of Energy, a derivative of one or more of the above technologies; and
    - vii. Any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.
  - b. Repowering also includes any oil, gas, or oil and gas-fired unit that has been awarded clean coal technology demonstration funding as of January 1, 1991, by the United States Department of Energy.
  - c. The Director shall give expedited consideration to permit applications for any source that satisfies the requirements of this subsection (and) is granted an extension under section 409 of the Act.
126. “Run” means the net period of time during which an emission sample is collected, which may be, unless otherwise specified, either intermittent or continuous within the limits of good engineering practice.
127. “Secondary ambient air quality standards” means the ambient air quality standards which define levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant, as specified in Article 2 of this Chapter.
128. “Secondary emissions” means emissions which are specific, well defined, quantifiable, occur as a result of the construction or operation of a major source or major modification, but do not come from the major source or major modification itself, and impact the same general area as the stationary source or

modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not otherwise be constructed or increase its emissions except as a result of the construction or operation of the major source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.

129. “Section 302(j) category” means:

- a. Any of the classes of sources listed in the definition of categorical source in subsection (23); or
- b. Any category of affected facility which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.

130. “Shutdown” means the cessation of operation of any air pollution control equipment or process equipment for any purpose, except routine phasing out of process equipment.

131. “Significant” means, in reference to a significant emissions increase, a net emissions increase, a stationary source’s potential to emit or a stationary source’s maximum capacity to emit with any elective limits as defined in R18-2-301(13):

- a. A rate of emissions of conventional pollutants that would equal or exceed any of the following:

Pollutant	Emissions Rate
Carbon monoxide	100 tons per year (tpy)
Nitrogen oxides	40 tpy
Sulfur dioxide	40 tpy
PM <sub>10</sub>	15 tpy
PM <sub>2.5</sub>	10 tpy of direct PM <sub>2.5</sub> emission dioxide emissions; 40 tpy of ni emissions.
Ozone	40 tpy of VOC or nitrogen oxide
Lead	0.6 tpy

- b. For purposes of determining the applicability of R18-2-302(B)(2) or R18-2-406, in addition to the rates specified in subsection (131)(a), a rate of emissions of non-conventional pollutants that would equal or exceed any of the following:

Pollutant	Emissions Rate
Particulate matter	25 tpy
Fluorides	3 tpy
Sulfuric acid mist	7 tpy
Hydrogen sulfide (H <sub>2</sub> S)	10 tpy
Total reduced sulfur (including H <sub>2</sub> S)	10 tpy
Reduced sulfur compounds (including H <sub>2</sub> S)	10 tpy
Municipal waste combustor organic total tetra-through octa-chlorinated dioxins and dibenzofurans)	3.5 x 10 <sup>-6</sup> tpy
Municipal waste combustor metals particulate matter)	15 tpy
Municipal waste combustor acid gas as sulfur dioxide and hydrogen chloride)	40 tpy
Municipal solid waste landfill emissions as nonmethane organic compounds)	50 tpy

Any regulated NSR pollutant not in this subsection (or) subsection for ammonia.	Any emission r
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- c. In ozone nonattainment areas classified as serious or severe, the emission rate for nitrogen oxides or VOC determined under R18-2-405.
  - d. In a carbon monoxide nonattainment area classified as serious, a rate of emissions that would equal or exceed 50 tons per year, if the Administrator has determined that stationary sources contribute significantly to carbon monoxide levels in that area.
  - e. In PM<sub>2.5</sub> nonattainment areas, an emission rate that would equal or exceed 40 tons per year of VOC as a precursor of PM<sub>2.5</sub>.
  - f. In PM<sub>2.5</sub> nonattainment areas, for purposes of determining the applicability of R18-2-403 or R18-2-404, an emission rate that would equal or exceed 40 tons per year of ammonia, as a precursor to PM<sub>2.5</sub>. This subsection shall take effect on the effective date of the Administrator's action approving it as part of the state implementation plan.
  - g. Notwithstanding the emission rates listed in subsection (131)(a) or (b), for purposes of determining the applicability of R18-2-406, any emissions rate or any net emissions increase associated with a major source or major modification, which would be constructed within 10 kilometers of a Class I area and have an impact on the ambient air quality of such area equal to or greater than 1 µg/m<sup>3</sup> (24-hour average).
132. "Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is significant as defined in this Section for that pollutant.
133. "Smoke" means particulate matter resulting from incomplete combustion.
134. "Source" means any building, structure, facility or installation that may cause or contribute to air pollution or the use of which may eliminate, reduce or control the emission of air pollution. A.R.S. § 49-401.01(23).
135. "Stack" means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.
136. "Stack in existence" means that the owner or operator had either:
- a. Begun, or caused to begin, a continuous program of physical onsite construction of the stack;
  - b. Entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time.
137. "Start-up" means the setting into operation of any air pollution control equipment or process equipment for any purpose except routine phasing in of process equipment.

138. “State implementation plan” or “SIP” means the accumulated record of enforceable air pollution control measures, programs and plans adopted by the Director and submitted to and approved by the Administrator pursuant to 42 U.S.C. 7410.
139. “Stationary rotating machinery” means any gas engine, diesel engine, gas turbine, or oil fired turbine operated from a stationary mounting and used for the production of electric power or for the direct drive of other equipment.
140. “Stationary source” means any building, structure, facility or installation which emits or may emit any regulated NSR pollutant, any regulated air pollutant or any pollutant listed under section 112(b) of the act. “Building,” “structure,” “facility,” or “installation” means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person or persons under common control. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” as described in the “Standard Industrial Classification Manual, 1987.”
141. “Subject to regulation” means, for any air pollutant, that the pollutant is subject to either a provision in the Act, or a nationally-applicable regulation codified by the administrator in 40 CFR chapter I, subchapter C, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity.
142. “Sulfuric acid plant” means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized as a means of preventing emissions of sulfur dioxide or other sulfur compounds to the atmosphere.
143. “Temporary clean coal technology demonstration project” means a clean coal technology demonstration project operated for five years or less, and that complies with the applicable implementation plan and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after the project is terminated.
144. “Temporary source” means a source which is portable, as defined in A.R.S. § 49-401.01(23) and which is not an affected source.
145. “Total reduced sulfur” (TRS) means the sum of the sulfur compounds, primarily hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, that are released during kraft pulping and other operations and measured by Method 16 in 40 CFR 60, Appendix A.
146. “Trivial activities” means activities and emissions units, such as the following, that may be omitted from a permit or registration application. Certain of the following listed activities include qualifying statements intended to exclude similar activities:
- a. Low-Emitting Combustion

- i. Combustion emissions from propulsion of mobile sources;
  - ii. Emergency or backup electrical generators at residential locations;
  - iii. Portable electrical generators that can be moved by hand from one location to another. "Moved by hand" means capable of being moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device;
- b. Low- Or Non-Emitting Industrial Activities
- i. Blacksmith forges;
  - ii. Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, sawing, grinding, turning, routing or machining of ceramic art work, precision parts, leather, metals, plastics, fiberboard, masonry, carbon, glass, or wood;
  - iii. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are insignificant activities based on size or production level thresholds. Brazing, soldering, and welding equipment, and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this definition;
  - iv. Drop hammers or hydraulic presses for forging or metalworking;
  - v. Air compressors and pneumatically operated equipment, including hand tools;
  - vi. Batteries and battery charging stations, except at battery manufacturing plants;
  - vii. Drop hammers or hydraulic presses for forging or metalworking;
  - viii. Equipment used exclusively to slaughter animals, not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment;
  - ix. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation;
  - x. Equipment used for surface coating, painting, dipping, or spraying operations, except those that will emit VOC or HAP;
  - xi. CO<sub>2</sub> lasers used only on metals and other materials that do not emit HAP in the process;
  - xii. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam;
  - xiii. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants;
  - xiv. Laser trimmers using dust collection to prevent fugitive emissions;
  - xv. Process water filtration systems and demineralizers;
  - xvi. Demineralized water tanks and demineralizer vents;
  - xvii. Oxygen scavenging or de-aeration of water;

- xviii. Ozone generators;
  - xix. Steam vents and safety relief valves;
  - xx. Steam leaks; and
  - xxi. Steam cleaning operations and steam sterilizers;
  - xxii. Use of vacuum trucks and high pressure washer/cleaning equipment within the stationary source boundaries for cleanup and in-source transfer of liquids and slurried solids to waste water treatment units or conveyances;
  - xxiii. Equipment using water, water and soap or detergent, or a suspension of abrasives in water for purposes of cleaning or finishing.
  - xxiv. Electric motors.
- c. Building and Site Maintenance Activities
- i. Plant and building maintenance and upkeep activities, including grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots, if these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and do not otherwise trigger a permit revision. Cleaning and painting activities qualify as trivial activities if they are not subject to VOC or hazardous air pollutant control requirements;
  - ii. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating, de-greasing, or solvent metal cleaning activities, and not otherwise triggering a permit revision;
  - iii. Janitorial services and consumer use of janitorial products;
  - iv. Landscaping activities;
  - v. Routine calibration and maintenance of laboratory equipment or other analytical instruments;
  - vi. Sanding of streets and roads to abate traffic hazards caused by ice and snow;
  - vii. Street and parking lot striping;
  - viii. Caulking operations which are not part of a production process.
- d. Incidental, Non-Industrial Activities
- i. Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the Act;
  - ii. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing, industrial or commercial process;
  - iii. Tobacco smoking rooms and areas;
  - iv. Non-commercial food preparation;
  - v. General office activities, such as paper shredding, copying, photographic activities, pencil sharpening and blueprinting, but not including incineration;

- vi. Laundry activities, except for dry-cleaning and steam boilers;
  - vii. Bathroom and toilet vent emissions;
  - viii. Fugitive emissions related to movement of passenger vehicles, if the emissions are not counted for applicability purposes under subsection (146)(c) of the definition of major source in this Section and any required fugitive dust control plan or its equivalent is submitted with the application;
  - ix. Use of consumer products, including hazardous substances as that term is defined in the Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) where the product is used at a source in the same manner as normal consumer use;
  - x. Activities directly used in the diagnosis and treatment of disease, injury or other medical condition;
  - xi. Circuit breakers;
  - xii. Adhesive use which is not related to production.
- e. Storage, Piping and Packaging
- i. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP;
  - ii. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
  - iii. Chemical storage associated with water and wastewater treatment where the water is treated for consumption and/or use within the permitted facility;
  - iv. Chemical storage associated with water and wastewater treatment where the water is treated for consumption and/or use within the permitted facility;
  - v. Storage cabinets for flammable products;
  - vi. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;
  - vii. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
- f. Sampling and Testing
- i. Vents from continuous emissions monitors and other analyzers;
  - ii. Bench-scale laboratory equipment used for physical or chemical analysis, but not laboratory fume hoods or vents;
  - iii. Equipment used for quality control, quality assurance, or inspection purposes, including sampling equipment used to withdraw materials for analysis;
  - iv. Hydraulic and hydrostatic testing equipment;
  - v. Environmental chambers not using HAP gases;

- vi. Soil gas sampling;
  - vii. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units;
- g. Safety Activities
- i. Fire suppression systems;
  - ii. Emergency road flares;
- h. Miscellaneous Activities
- i. Shock chambers;
  - ii. Humidity chambers;
  - iii. Solar simulators;
  - iv. Cathodic protection systems;
  - v. High voltage induced corona; and
  - vi. Filter draining.
147. “Unclassified area” means an area which the Administrator, because of a lack of adequate data, is unable to classify as an attainment or nonattainment area for a specific pollutant, and which, for purposes of this Chapter, is treated as an attainment area.
148. “Uncombined water” means condensed water containing analytical trace amounts of other chemical elements or compounds.
149. “Urban or suburban open area” means an unsubdivided tract of land surrounding a substantial urban development of a residential, industrial, or commercial nature and which, though near or within the limits of a city or town, may be uncultivated, used for agriculture, or lie fallow.
150. “Vacant lot” means a subdivided residential or commercial lot which contains no buildings or structures of a temporary or permanent nature.
151. “Vapor” means the gaseous form of a substance normally occurring in a liquid or solid state.
152. “Visibility impairment” means any humanly perceptible change in visibility (light extinction, visual range, contrast, coloration) from that which would have existed under natural conditions.
153. “Visible emissions” means any emissions which are visually detectable without the aid of instruments and which contain particulate matter.
154. “Volatile organic compounds” or “VOC” means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions. This includes any such organic compound other than the following:
- a. Methane;
  - b. Ethane;
  - c. Methylene chloride (dichloromethane);

- d. 1,1,1-trichloroethane (methyl chloroform);
- e. 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
- f. Trichlorofluoromethane (CFC-11);
- g. Dichlorodifluoromethane (CFC-12);
- h. Chlorodifluoromethane (HCFC-22);
- i. Trifluoromethane (HFC-23);
- j. 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114);
- k. Chloropentafluoroethane (CFC-115);
- l. 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123);
- m. 1,1,1,2-tetrafluoroethane (HFC-134(a));
- n. 1,1-dichloro 1-fluoroethane (HCFC-141(b));
- o. 1-chloro 1,1-difluoroethane (HCFC-142(b));
- p. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
- q. Pentafluoroethane (HFC-125);
- r. 1,1,2,2-tetrafluoroethane (HFC-134);
- s. 1,1,1-trifluoroethane (HFC-143(a));
- t. 1,1-difluoroethane (HFC-152(a));
- u. Parachlorobenzotrifluoride (PCBTF);
- v. Cyclic, branched, or linear completely methylated siloxanes;
- w. Acetone;
- x. Perchloroethylene (tetrachloroethylene);
- y. 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225(ca));
- z. 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225(cb));
- aa. 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee);
- bb. Difluoromethane (HFC-32);
- cc. Ethylfluoride (HFC-161);
- dd. 1,1,1,3,3,3-hexafluoropropane (HFC-236(fa));
- ee. 1,1,2,2,3-pentafluoropropane (HFC-245(ca));
- ff. 1,1,2,3,3-pentafluoropropane (HFC-245(ea));
- gg. 1,1,1,2,3-pentafluoropropane (HFC-245(eb));
- hh. 1,1,1,3,3-pentafluoropropane (HFC-245(fa));
- ii. 1,1,1,2,3,3-hexafluoropropane (HFC-236(ea));
- jj. 1,1,1,3,3-pentafluorobutane (HFC-365(mfc));
- kk. Chlorofluoromethane (HCFC-31);
- ll. 1 chloro-1-fluoroethane (HCFC-151(a));

- mm. 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123(a));
  - nn. 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C<sub>4</sub>F<sub>9</sub>OCH<sub>3</sub>);
  - oo. 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF<sub>3</sub>)<sub>2</sub>CF<sub>2</sub>OCH<sub>3</sub>);
  - pp. 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C<sub>4</sub>F<sub>9</sub>OC<sub>2</sub>H<sub>5</sub>);
  - qq. 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF<sub>3</sub>)<sub>2</sub>CF<sub>2</sub>OC<sub>2</sub>H<sub>5</sub>);
  - rr. Methyl acetate; and
  - ss. 1,1,1,2,2,3,3-heptafluoro-3-methoxypropane (n-C<sub>3</sub>F<sub>7</sub>OCH<sub>3</sub>, HFE—7000);
  - tt. 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE – 7500);
  - uu. 1,1,1,2,3,3,3-hentafluoropropane (HFC 227ea);
  - vv. Methyl formate (HCOOCH<sub>3</sub>): and
  - ww. (1) 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE–7300);
  - xx. Propylene carbonate;
  - yy. Dimethyl carbonate; and
  - zz. Trans -1,3,3,3-tetrafluoropropene;
  - aaa.HCF<sub>2</sub>OCF<sub>2</sub>H (HFE-134);
  - bbb. HCF<sub>2</sub>OCF<sub>2</sub>OCF<sub>2</sub>H (HFE-236(cal2));
  - ccc.HCF<sub>2</sub>OCF<sub>2</sub>CF<sub>2</sub>OCF<sub>2</sub>H (HFE-338(pcc13));
  - ddd. HCF<sub>2</sub>OCF<sub>2</sub>OCF<sub>2</sub>CF<sub>2</sub>OCF<sub>2</sub>H (H-Galden 1040x or H-Galden ZT 130 (or 150 or 180));
  - eee.Trans 1-chloro-3,3,3- trifluoroprop-1-ene;
  - fff. 2,3,3,3-tetrafluoropropene;
  - ggg. 2-amino-2-methyl-1-propanol; and
  - hhh. Perfluorocarbon compounds that fall into these classes:
    - i. Cyclic, branched, or linear, completely fluorinated alkanes.
    - ii. Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations.
    - iii. Cycle, branched, or linear, completely fluorinated tertiary amines with no unsaturations; or
    - iv. Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
    - v. The following compound is VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but is not VOC for purposes of VOC emissions limitations or VOC content requirements: t-butyl acetate.
155. “Wood waste burner” means an incinerator designed and used exclusively for the burning of wood wastes consisting of wood slabs, scraps, shavings, barks, sawdust or other wood material, including those that generate steam as a by-product.

**ARTICLE 4. PERMIT REQUIREMENTS FOR NEW MAJOR SOURCES AND MAJOR  
MODIFICATIONS TO EXISTING MAJOR SOURCES**

**R18-2-404. Offset Standards**

- A.** Increased emissions by a major source or major modification subject to R18-2-403 of each pollutant for which the area has been designated as nonattainment and for which the source or modification is classified as major shall be offset by real reductions in the actual emissions of the pollutant. Offsets shall be for the same regulated NSR Pollutant, ~~except that emissions of the ozone precursors NO<sub>x</sub> and VOC may be offset by reductions in emissions of either of those pollutants, provided that all other applicable requirements of this Section and R18-2-405 are satisfied.~~ Except as provided in R18-2-405 and subsection (J), the ratio of the total actual reductions to the emissions increase shall be at least 1 to 1.
- B.** Except as provided in subsection (B)(1) or (2), for sources and modifications subject to this Section, the baseline for determining credit for emissions reductions is the emissions limit for the source generating the offset credit under the applicable implementation plan in effect at the time the application for a permit or permit revision is filed.
1. The offset baseline shall be the actual emissions of the source from which offset credit is obtained where either of the following conditions is satisfied:
    - a. The demonstration of reasonable further progress and attainment of ambient air quality standards is based upon the actual emissions of sources located within a designated nonattainment area for which the preconstruction review program was adopted.
    - b. The applicable implementation plan does not contain an emissions limitation for that source or source category.
  2. Where the emissions limit under the applicable implementation plan allows greater emissions than the potential to emit of the source, emissions offset credit will be allowed only for control below this potential.
- C.** For an existing fuel combustion source, emissions offset credit shall be based on the allowable emissions under the applicable implementation plan for the type of fuel being burned at the time the application to construct is filed. If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable or actual emissions for the fuels involved is not acceptable, unless the permit for the existing source is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a fuel generating higher emissions. The owner or operator of the existing source must demonstrate that adequate long-term supplies of the new fuel are available before granting emissions offset credit for fuel switches.
- D.** Offset Credit for Shutdowns.

1. Emissions reductions achieved by shutting down an existing emission unit or curtailing production or operating hours may be credited for offsets if they meet both of the following conditions.
    - a. The reductions are surplus, permanent, quantifiable, and federally enforceable.
    - b. The shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this subsection, the Director may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. However, in no event may credit be given for shutdowns that occurred before August 7, 1977.
  2. Emissions reductions achieved by shutting down an existing emissions unit or curtailing production or operating hours and that do not meet the requirements in subsection (D)(1)(b) may be credited only if one of the following conditions is satisfied:
    - a. The shutdown or curtailment occurred on or after the date the construction permit application is filed.
    - b. The applicant can establish that the proposed new emissions unit is a replacement for the shutdown or curtailed emissions unit, and the emissions reductions achieved by the shutdown or curtailment met the requirements of subsection (D)(1)(a).
- E.** No emissions credit may be allowed for replacing one hydrocarbon compound with another of lesser reactivity, except for those compounds listed in Table 1 of EPA's "Recommended Policy on Control of Volatile Organic Compounds," 42 FR 35314 (July 8, 1977).
- F.** All emission reductions claimed as offset credits shall be federally enforceable by the time a proposed final permit is issued to the owner or operator of the major source subject to this Section and shall be in effect by the time the new or modified source subject to the permit commences operation.
- G.** The owner or operator of a major source or major modification subject to this Section must obtain offset credits from the same source or from other sources in the same nonattainment area, except that the Director may allow the owner or operator to obtain offset credits from another nonattainment area if both of the following conditions are satisfied:
1. The other area has an equal or higher nonattainment classification than the area in which the source is located.
  2. Emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located.
- H.** Credit for an emissions reduction can be claimed to the extent that the Director has not relied on it in issuing any permit under this Article, R18-2-334, or the state has not relied on it in a demonstration of attainment or reasonable further progress.

- I.** The total tonnage of increased emissions, in tons per year, resulting from a major modification that must be offset under this Section shall be determined by summing the difference between the allowable emissions after the modification and the actual emissions before the modification for each emissions unit.
- J.** In ozone nonattainment areas classified as marginal, total emissions of VOC and oxides of nitrogen from other sources shall offset those proposed or permitted from the major source or major modification by a ratio of at least 1.10 to 1. In ozone nonattainment areas classified as moderate, total emissions of VOC and oxides of nitrogen from other sources shall offset those proposed or permitted from the major source or major modification by a ratio of at least 1.15 to 1. New major sources and major modifications in serious and severe ozone nonattainment areas shall comply with this Section and R18-2-405.