

This guidance is provided as a tool and is not intended to supersede the rules of Arizona Administrative Code (A.A.C.) R18-2-334

## Minor NSR Guidance

The purpose of the Minor NSR Program is to prevent the construction of new minor sources or minor NSR modifications that would interfere with the attainment or maintenance of a National Ambient Air Quality Standard (NAAQS) or violate the control strategy in nonattainment areas.

### I. APPLICABILITY

Unless the Major NSR Program (PSD or NNSR) is required, the Minor NSR Program shall apply to a **regulated minor NSR pollutant** for (i) a new Class I or Class II source that will have the **potential to emit (PTE)** for that pollutant at an amount equal to or greater than the **permitting exemption threshold**, or (ii) a minor modification that will increase the source's PTE for that pollutant by an amount equal to or greater than the **permitting exemption threshold**.

#### A. Construction of new Sources

1. For Construction of new Class II Source

The Minor NSR program will be applicable for any **regulated minor NSR pollutants** with the PTE equal to or greater than the **permitting exemption thresholds**.

2. For construction of new Class I sources not subject to Article 4

The Minor NSR program will be applicable for any **regulated minor NSR pollutants** with the PTE equal to or greater than the **permitting exemption thresholds**.

3. Construction of a new Class I source subject to Article 4 (Major Source):

- a. For attainment pollutants and non-NAAQS regulated NSR pollutants

If the facility has at least one **regulated NSR pollutant** with the PTE equal to or greater than the major source threshold under A.A.C. R18-2-401.13.b, then the PSD requirements shall be applicable for each regulated NSR pollutant for which the PTE is significant. Unless the PSD program is required, the Minor NSR program shall be applicable for any **regulated minor NSR pollutant** with the PTE equal to or greater than the **permitting exemption threshold**.

- b. For non-attainment pollutants

Non-attainment New Source Review (NNSR) shall be applicable for each non-attainment **regulated NSR pollutant** with the PTE equal to or

greater than the major source threshold under A.A.C. R18-2-401.13.a. Unless a NNSR program is required, the Minor NSR Program shall be applicable for any non-attainment *regulated minor NSR pollutant* with the PTE equal to or greater than the *permitting exemption threshold*.

## B. Minor NSR Modification

### Definition

*Minor NSR Modification* means any of the following changes that do not qualify as a *major modification*.

- a. Any physical change in or change in the method of operation of an emission unit or a stationary source that either:
  - (1) Increases the PTE of a *regulated minor NSR pollutant* by an amount equal to or greater than the *permitting exemption thresholds*, or
  - (2) Results in emissions of a *regulated minor NSR pollutant* not previously emitted by such emission unit or stationary source in an amount equal to or greater than the *permitting exemption thresholds*.
- b. Construction of one or more new emissions units that have the potential to emit *regulated minor NSR pollutants* at an amount equal to or greater than the *permitting exemption threshold*.

A change constitutes a *minor NSR modification* regardless of whether there will be a net decrease in total source emissions or a net increase in total source emissions that is less than the *permitting exemption thresholds* as a result of decreases in the PTE of other emission units at the same stationary source.

#### 1. Modifications at Class II Sources

The Minor NSR Program shall be applicable for any *regulated minor NSR pollutants* with a PTE increase as a result of the modification equal to or greater than the *permitting exemption threshold*. Simply put, a Permittee may not use the effect of emission decreases from a project to avoid Minor NSR review.

#### 2. Modifications at Class I source not subject to Article 4

The Minor NSR Program shall be applicable for any *regulated minor NSR pollutants* with a PTE increase as a result of the modification equal to or greater than the *permitting exemption threshold*.

#### 3. Modifications at Class I sources Subject to Article 4 (*Major source*)

For any *regulated NSR pollutant*, if the project would result in a significant emission increase as well as net emissions increase, the change is a major modification for that pollutant, and is subject to NNSR or PSD. For any other *regulated minor NSR pollutant*, if the PTE increase is equal to or greater than the *permitting exemption threshold*, such pollutants will be subject to the Minor NSR Program.

## II. MINOR NSR REQUIREMENTS

All sources subject to the Minor NSR program (A.A.C. R18-2-334) shall comply with one of the following requirements:

- A. The source elects to implement **Reasonably Available Control Technology (RACT)**, **RACT** is defined as “the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility”. Or,
- B. The ambient air quality assessment demonstrates that emissions from the source or **Minor NSR modification** will not interfere with attainment or maintenance of a NAAQS.

Notwithstanding an election to adopt RACT, the Director may request an ambient air quality assessment mentioned above if there is reason to believe that the source or **Minor NSR modification** could interfere with the attainment or maintenance of a NAAQS.

## III. RACT REQUIREMENTS

If the facility chooses to implement RACT for the affected emission units:

- A. In the case of a new source, RACT will be required for each emissions unit that has the PTE of a **regulated minor NSR pollutant** in an amount equal to or greater than 20% of the **permitting exemption threshold**.
- B. In the case of a **minor NSR modification**, RACT will be required for each emissions unit that will experience an increase in the PTE of a **regulated minor NSR pollutant** equal to or greater than 20% of the **permitting exemption threshold**.
- C. The RACT determinations for all pollutants subject to minor NSR program shall be based on the case by case analysis performed by the applicant. The applicant may use one of the following to determine RACT for the affected emission units:

1. EPA RACT/BACT/LAER clearinghouse

<http://cfpub.epa.gov/RBLC/>

2. An emissions standard established or revised by the Administrator for the same type of source under section 111 or 112 of the Act after November 15, 1990. (NSPS/NESHAP)

Link for NSPS (40 CFR 60.1-60.5499)/NESHAP (40 CFR 63.1 to 63.12099)

[http://www.ecfr.gov/cgi-bin/text-idx?SID=7716bad8c76b30368044a215ff74fdbe&mc=true&tpl=/ecfrbrowse/Title40/40tab\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?SID=7716bad8c76b30368044a215ff74fdbe&mc=true&tpl=/ecfrbrowse/Title40/40tab_02.tpl)

3. An applicable requirement of Chapter 2 of the A.A.C. or of air quality control regulations adopted by a County under A.R.S. § 49-479 that has been specifically identified as constituting RACT. As per the following guidance document, the 300 series Maricopa County Rules under Regulation III are considered to be RACT requirements.

[http://maricopa.gov/aq/divisions/permit\\_engineering/docs/pdf/BACT%20Guidan](http://maricopa.gov/aq/divisions/permit_engineering/docs/pdf/BACT%20Guidan)

[ce.pdf](#)

These rules (Rule 300 through Rule 372) are available at:

[http://www.maricopa.gov/eq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/eq/divisions/planning_analysis/AdoptedRules.aspx)

4. A RACT standard imposed on the same type of source by a general permit.
5. A RACT standard imposed on the same type of source no more than 10 years before the date of application submittal. ADEQ will develop a RACT database on an on-going basis and this will be available on the ADEQ website.

Notwithstanding a Permittee's election to conduct a RACT evaluation for a **regulated minor NSR Pollutant**, ADEQ may choose to use its discretion to perform screen modeling, on case by case basis, to ensure that the NAAQS are not violated

#### IV. AMBIENT AIR QUALITY ASSESSMENT

- A. The applicant may request ADEQ to perform screen modeling. ADEQ will need the following information to perform screen modeling for each **Minor NSR pollutant** that triggers minor NSR review.
  1. Detailed Facility Layout showing
    - a. The facility's fence line,
    - b. Locations of emission points,
    - c. Location of process equipment (i.e. storage tanks, silos, conveyors, etc.), lay down areas, parking lots, haul roads, maintenance roads, storage piles, etc., and
    - d. Location and dimensions of all buildings at the facility.
    - e. As an alternative to the above, the applicant may provide a table listing all the above information with the ID traceable on the plot.
  2. Emission Profiles
    - a. Maximum hourly emission rates (lb/hr)
    - b. Maximum annual emission rates (tons/year)
  3. Stack Parameters
    - a. UTM coordinates
    - b. Stack inside diameter
    - c. Stack height above ground
    - d. Stack gas exit velocity
    - e. Stack gas exit temperature

- f. Indicate if the stack is a non-vertical stack or a vertical stack with obstructed emissions (such as a raincap)
- g. If the stack is a non-round stack; provide length and width for a rectangular stack.

**B.** Based on the above information, ADEQ will perform a screen modeling analysis. If the screen modeling indicates possible interference with the attainment and maintenance of NAAQS, ADEQ will inform the applicant to conduct refined modeling in accordance with ADEQ's modeling guidelines at:

<http://www.azdeq.gov/environ/air/permits/download/File%201%20-%20ADEQ%20Modeling%20Guidance%202013.pdf>

**C.** For attainment pollutants:

1. The applicant must demonstrate that the ambient concentrations resulting from the source or modification combined with representative background concentrations of *regulated minor NSR pollutants* will not cause the violation of NAAQS, or
2. The emissions from the source or *minor modification* will have an ambient impact below the *significant* levels as defined in R18-2-401.

If the model indicates that a NAAQS is initially exceeded, it is the responsibility of the Permittee to consider several options to prevent the NAAQS exceedance. Preliminary NAAQS exceedances might be avoided by:

1. Refining emissions estimates by using other defensible emission factors than those used in the preliminary modeling analysis;
2. Limiting operational hours or process throughputs;
3. Optimizing stack parameters for better pollutant dispersion (i.e. raise stack heights, increase exhaust airflows (subject to restrictions on prohibited dispersion techniques), or crown stack diameters to obtain higher exhaust velocities);
4. Relocating sources to other portions of a facility which would lead to lower modeled impacts;
5. Source testing to refine emissions estimates;
6. Installing pollution controls to limit emissions

**D.** For non-attainment pollutants,

1. The applicant must demonstrate that the ambient concentrations resulting from emissions from the source or modification will have an ambient impact below the *significant* levels as defined in R18-2-401. If the ambient impacts from the source are greater than SILs based on a preliminary modeling analysis, the Permittee may evaluate additional controls or dispersion techniques to mitigate the source's impact to be below the SILs. The recommended additional controls or dispersion techniques are the same to those for preventing NAAQS exceedances as discussed in IV.C above. or,

2. For some circumstances, although the facility is located in a nonattainment area, the most recent three years of ambient monitoring data may indicate that the background concentrations for the project site area are below the NAAQS. For this case, the Permittee may model the facility-wide emissions for new source, or post-project facility-wide emissions for modified source, and add modeling results to representative ambient background concentrations to demonstrate that the total concentrations are below the NAAQS.

For modifications, if either IV.D.1 or 2 above are unsuccessful for the modeling demonstration, the Permittee may reduce the ambient impacts from the facility by exploring control/dispersion options for other sources within the facility. The Permittee may model the pre-project and post-project facility-wide emissions separately to demonstrate that the post-project ambient impacts are equal to or less than the pre-project ambient impacts.

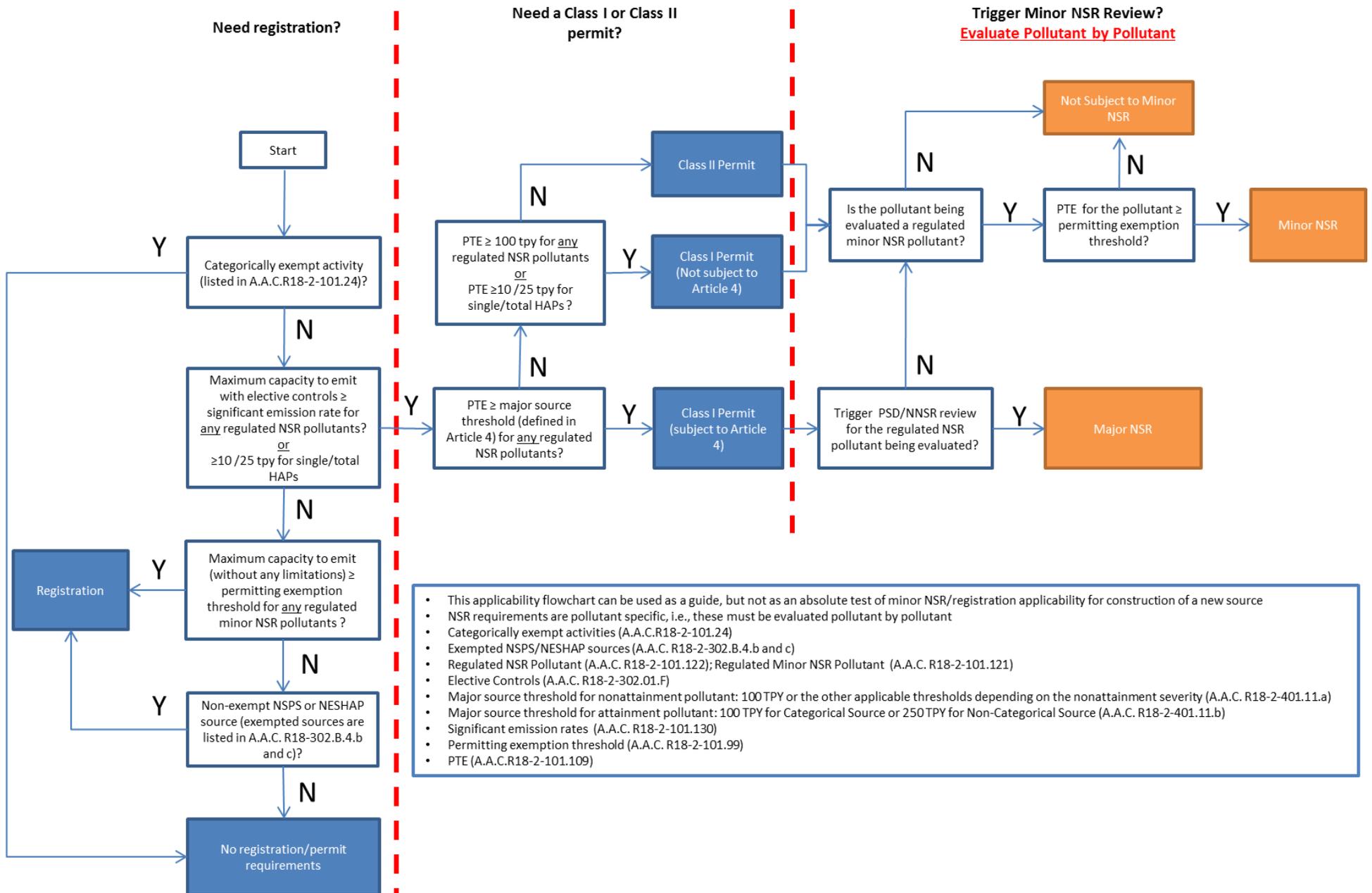
- E. If a new source emits SO<sub>2</sub> or NO<sub>x</sub> at an amount equal to or greater than 20 tons per year, or a minor modification increases the PTE of SO<sub>2</sub> or NO<sub>x</sub> equal to or greater than 20 tons per year, the applicant should assess secondary PM<sub>2.5</sub> impacts, following Section 7.3.8 of ADEQ's modeling guidelines referred in IV.B above.
- F. If minor NSR review is applicable for ozone, the modeling requirements for ozone are determined on a case-by-case basis due to the lack of screening tools and techniques for ozone modeling. The EPA is proposing to establish Model Emissions Rates for Precursors (MERPs) for ozone and the MERP values will likely be higher than the significant emission rates (40 tpy). Therefore, an air quality assessment for ozone is not required if the PTE or the PTE increase for precursors are less than 40 tpy.

## V. TYPE OF PERMIT REVISION

An application for a permit revision subject to the minor NSR program shall be processed as significant permit revision, except that the application may be processed as a minor permit revision if one of the following conditions is satisfied for each pollutant:

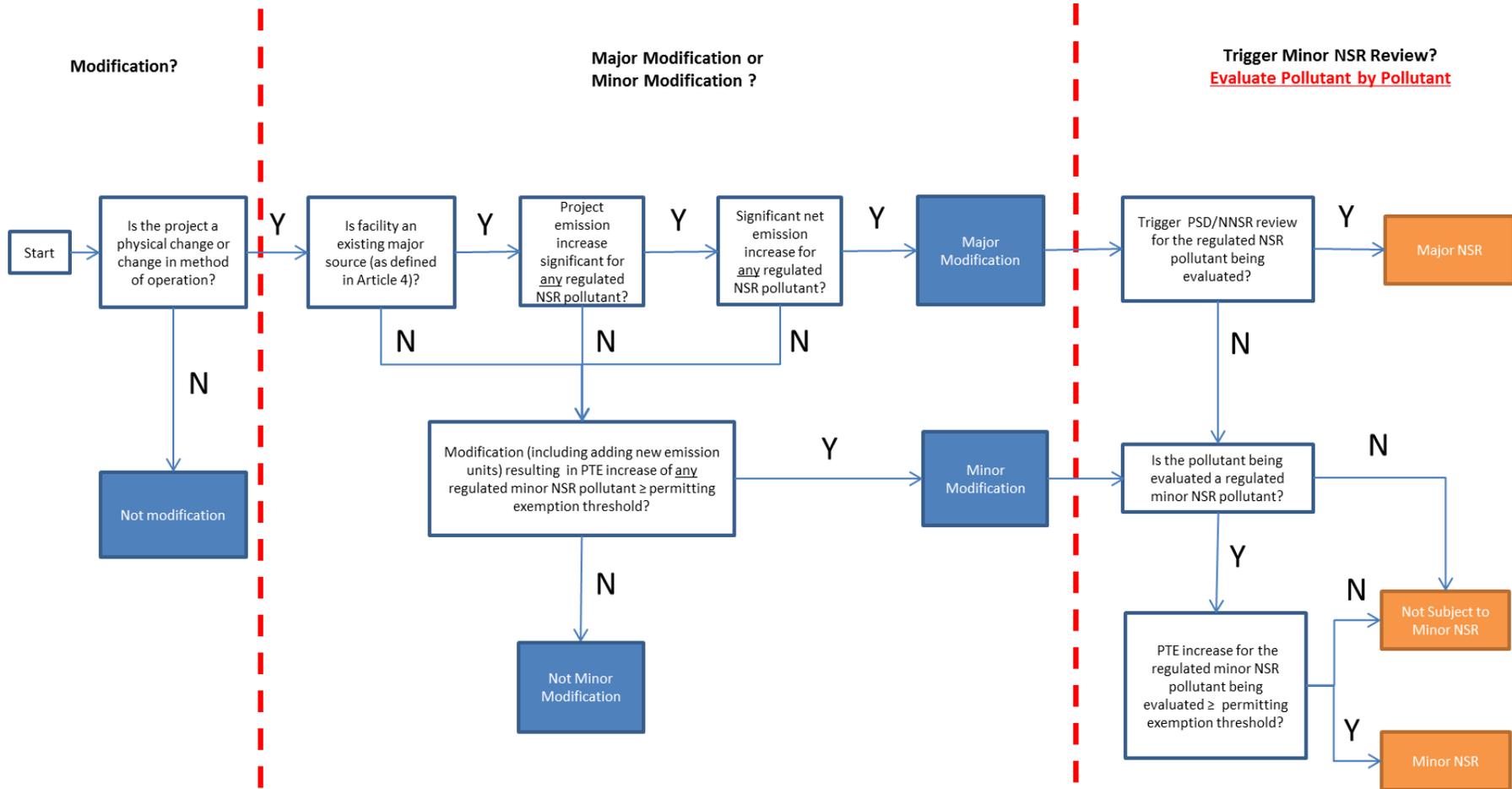
- A. A RACT standard under III.C above is imposed on each emissions unit that requires such a standard.
- B. The results of the SCREEN model for a *regulated minor NSR pollutant* show that expected concentrations, including background concentrations, are less than 75% of the applicable NAAQS standard.

# Minor NSR/Registration for Construction of a New Source



- This applicability flowchart can be used as a guide, but not as an absolute test of minor NSR/registration applicability for construction of a new source
- NSR requirements are pollutant specific, i.e., these must be evaluated pollutant by pollutant
- Categorically exempt activities (A.A.C.R18-2-101.24)
- Exempted NSPS/NESHAP sources (A.A.C. R18-2-302.B.4.b and c)
- Regulated NSR Pollutant (A.A.C. R18-2-101.122); Regulated Minor NSR Pollutant (A.A.C. R18-2-101.121)
- Elective Controls (A.A.C. R18-2-302.01.F)
- Major source threshold for nonattainment pollutant: 100 TPY or the other applicable thresholds depending on the nonattainment severity (A.A.C. R18-2-401.11.a)
- Major source threshold for attainment pollutant: 100 TPY for Categorical Source or 250 TPY for Non-Categorical Source (A.A.C. R18-2-401.11.b)
- Significant emission rates (A.A.C. R18-2-101.130)
- Permitting exemption threshold (A.A.C. R18-2-101.99)
- PTE (A.A.C.R18-2-101.109)

# Minor NSR for Modification at Class I or Class II Sources



- This applicability flowchart can be used as a guide, but not as an absolute test of minor NSR applicability for modification
- This flowchart does not address Plantwide Applicability Limits (A.A.C.R18-2-412)
- Physical changes at minor sources that “..would constitute a major stationary source by itself...” is treated as a new major source rather than a modification
- NSR requirements are pollutant specific; must evaluate pollutant by pollutant
- Regulated NSR Pollutant (A.A.C. R18-2-101.122); Regulated Minor NSR Pollutant (A.A.C. R18-2-101.121)
- Modification (A.A.C. R18-2-101.80); Major Modification (A.A.C.R18-2-101.74/A.A.C.R18-2-402.D); Minor Modification (A.A.C.R18-2-301.12)
- Article 4 Major Source (A.A.C. R18-2-401.11)
- Significant Emission Increase /Net Emission Increase (A.A.C. R18-2-101.130)
- Net Emission Increase (A.A.C. R18-2-101.87)
- Project (A.A.C. R18-2-101.112)
- Permitting Exemption Threshold (A.A.C. R18-2-101.99)
- PTE (A.A.C. R18-2-101.109)

## DEFINITIONS

**Attainment area** means any area in the state that has been identified in regulations promulgated by the Administrator as being in compliance with national ambient air quality standards.

**Categorical Sources** mean the following classes of sources:

1. Coal cleaning plants with thermal dryers;
2. Kraft pulp mills;
3. Portland cement plants;
4. Primary zinc smelters;
5. Iron and steel mills;
6. Primary aluminum ore reduction plants;
7. Primary copper smelters;
8. Municipal incinerators capable of charging more than 250 tons of refuse per day;
9. Hydrofluoric, sulfuric, or nitric acid plants;
10. Petroleum refineries;
11. Lime plants;
12. Phosphate rock processing plants;
13. Coke oven batteries;
14. Sulfur recovery plants;
15. Carbon black plants using the furnace process;
16. Primary lead smelters;
17. Fuel conversion plants;
18. Sintering plants;
19. Secondary metal production plants;
20. 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;
21. Fossil-fuel boilers, combinations thereof, totaling more than 250 million Btus per hour heat input;
22. Petroleum storage and transfer units with a total storage capacity more than 300,000 barrels;
23. Taconite preprocessing plants;
24. Glass fiber processing plants;
25. Charcoal production plants;
26. Fossil-fuel-fired steam electric plants and combined cycle gas turbines of more than 250 million Btus per hour heat input

**Categorical Exempt Activities** mean:

1. Any combination of diesel-, natural gas- or gasoline fired engines with cumulative power equal to or less than 145 horsepower
2. Natural gas-fired engines with cumulative power equal to or less than 155 horsepower
3. Gasoline-fired engines with cumulative power equal to or less than 200 horsepower
4. 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:
  - a. Any combination of diesel-, natural gas- or gasoline-fired emergency engines with cumulative power equal to or less than 2,500 horsepower.
  - b. Natural gas-fired emergency engines with cumulative power equal to or less than 2,700 horsepower.
  - c. Gasoline-fired emergency engines with cumulative power equal to or less than 3,700 horsepower.
  - d. Any combination of boilers with a cumulative maximum design heat input capacity of less than 10 million Btu/hr

**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 actual emissions.

**Elective Limits or Controls** means the owner/operator of a source that requires a registration may elect to include any of the following emission limitations in the registration, provided the registration also includes the operating, maintenance, monitoring, and recordkeeping requirements specified below for the limitation:

1. hours of operation for any process or combination of processes (requires owner/ operator to log hours operated daily)
2. production rate for any process or combination of processes (requires owner/ operator to log production rate daily)
3. fabric filter to control particulate matter emissions (requires owner/ operator to: operate and maintain the fabric filter in accordance with manufacturer's recommendations; operate the fabric filter at all times the emission unit is operated; inspect fabric filter once per month for tears or leaks and promptly repair any tears and leaks identified; and record all inspections and any maintenance activities required as a result of the inspection)
4. VOC or HAP limit on process materials (requires owner/ operator to maintain a log of the VOC or HAP concentrations in each material used during the current calendar year)

**Excluded NSPS/NESHAPS List** includes:

1. 40 CFR 60, Subpart AAA (Residential Wood Heaters)
2. 40 CFR 60, Subpart IIII (Stationary Compression Ignition Internal Combustion Engines)

3. 40 CFR 60, Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines)
4. 40 CFR 61.145 (Asbestos - Standard for Demolition and Renovation)
5. 40 CFR 63, Subpart ZZZZ (Reciprocating Internal Combustion Engines)
6. 40 CFR 63, Subpart WWWW (Ethylene Oxide Sterilizers)
7. 40 CFR 63, Subpart CCCCCC (Gasoline Distribution)
8. 40 CFR 63, Subpart HHHHHH (Paint Stripping and Miscellaneous Surface Coating Operations)
9. 40 CFR 63, Subpart JJJJJ (Industrial, Commercial, and Institutional Boilers Area Sources)
10. 112(r) (Guide to the Accidental Release Prevention Requirements)

**Insignificant Activities** mean:

1. Liquid Storage and Piping Liquid Storage and Piping
  - a. 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.
  - b. Gasoline storage tanks with capacity of 10,000 gallons or less.
  - c. Storage and piping of natural gas, butane, propane, or liquefied 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.
  - d. Piping of fuel oils, used oil and transformer oil, provided the applicant includes a system description.
  - e. 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. 6901-6992k. Permit applicants must provide a description of material in the containers and the approximate amount stored.
  - f. 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.
  - g. Electrical transformer oil pumping, cleaning, filtering, drying and the re-installation of oil back into transformers.
2. 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.

3. Low Emitting Processes

- a. Batch mixers with rated capacity of 5 cubic feet or less.
- b. 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 nonmetallic minerals.
- c. Powder coating operations.
- d. Equipment using water, water and soap or detergent, or a suspension of abrasives in water for purposes of cleaning or finishing.
- e. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system or collector serving them exclusively.
- f. Plastic pipe welding.

4. Site Maintenance

- a. 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.
- b. Sanding of streets and roads to abate traffic hazards caused by ice and snow.
- c. Street and parking lot striping.
- d. Architectural painting and associated surface preparation for maintenance purposes at industrial or commercial facilities.

5. Sampling and Testing

- a. 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.
- b. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units.

6. Ancillary Non-Industrial Activities

- a. General office activities, such as paper shredding, copying, photographic activities, and blueprinting, but not to include incineration.
- b. 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.

- c. Activities directly used in the diagnosis and treatment of disease, injury or other medical condition.
7. Miscellaneous Activities
- a. Installation and operation of potable, process and waste water observation wells, including drilling, pumping, filtering apparatus.
  - b. Transformer vents.

**Maintenance Area** means any geographic region of the United States that the EPA previously designated as a nonattainment area for one or more pollutants pursuant to the Clean Air Act Amendments of 1990, and subsequently redesignated as an attainment area subject to the requirement to develop a maintenance plan under section 175A of the Clean Air Act, as amended.

**Major Modification** is defined as follows:

- 1. 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.
- 2. Any emissions increase or net emissions increase that is significant for nitrogen oxides or volatile organic compounds is significant for ozone.

**Major Source** means:

- 1. A major source as defined in A.A.C R18-2-401.
  - a. For purposes of determining the applicability of A.A.C. R18-2-403 through A.A.C. R18-2-405 or A.A.C. R18-2-411, major source means any stationary source that emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant, except that the following thresholds shall apply in areas subject to subpart 2, subpart 3 or subpart 4 of part D, Title I of the Act:

Pollutant Emitted	Nonattainment Pollutant and Classification	Quantity Threshold (tons/year or more)
Carbon Monoxide (CO)	CO, Serious, if stationary sources contribute significantly to CO levels in the area as determined under rules issued by the Administrator	50
VOC	Ozone, Serious	50
VOC	Ozone, Severe	25
PM <sub>10</sub>	PM <sub>10</sub> , Serious	70
PM <sub>2.5</sub>	PM <sub>2.5</sub> Serious	70
PM <sub>2.5</sub> precursors	PM <sub>2.5</sub> Serious	70

identified in A.A.C. R18-2- 101(124)(a)		
NO <sub>x</sub>	Ozone, Serious	50
NO <sub>x</sub>	Ozone, Severe	25

- b. For purposes of determining the applicability of A.A.C. R18-2-406 through A.A.C. R18-2-408 or A.A.C. R18-2-410, major source means any stationary source that emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant if the source is classified as a categorical source, or 250 tons per year or more of any regulated NSR pollutant if the source is not classified as a categorical source;
  - c. Any stationary source that emits, or has the potential to emit, five or more tons of lead per year;
  - d. A major source that is major for VOC or nitrogen oxides shall be considered major for ozone;
  - e. The fugitive emissions of a stationary source shall not be included in determining whether it is a major source, unless the source belongs to a section 302(j) category.
2. A major source under section 112 of the Act:
- a. 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 or more of any hazardous air pollutant which has been listed pursuant to section 112(b) of the Act, 25 tons per year 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
  - b. For radionuclides, “major source” shall have the meaning specified by the Administrator by rule.
3. A major stationary source, as defined in section 302 of the Act, that directly emits or has the potential to emit, 100 tons per year 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.

**Maximum Capacity to Emit** means the maximum capacity of a stationary source to emit a pollutant excluding secondary emissions, under its physical and operational design

**Maximum Capacity to Emit with Elective Controls** 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 only if the limitation or the effect it would have on emissions is subject to an elective limit under R18-2-302.01.F. Maximum capacity to emit with elective limits is currently referred to as uncontrolled potential to emit.

**Minor NSR Modification** means any of the following changes that do not qualify as a major source or major modification:

1. Any physical change in or change in the method of operation of an emission unit or a stationary source that either:
  - a. Increases the potential to emit of a regulated minor NSR pollutant by an amount greater than the permitting exemption thresholds, or
  - b. Results in emissions of a regulated minor NSR pollutant not previously emitted by such emission unit or stationary source in an amount greater than the permitting exemption thresholds.
2. The following do not constitute a physical change or change in the method of operation:
  - a. A change consisting solely of the construction of, or changes to, a combination of emissions units qualifying as a categorically exempt activity.
  - b. For a stationary source that is required to obtain a Class II permit under R18-2-302 and that is subject to source-wide emissions caps under R18-2-306.01 or R18-2-306.02, a change that will not result in the violation of the existing emissions cap for that regulated minor NSR pollutant.
  - c. Replacement of an emission unit by a unit with a potential to emit regulated minor NSR pollutants that is less than or equal to the potential to emit of the existing unit, provided the replacement does not cause an increase in emissions at other emission units at the stationary source. A unit installed under this provision is subject to any limits applicable to the unit it replaced.
  - d. Routine maintenance, repair, and replacement.
  - e. 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 to 825r.
  - f. Use of an alternative fuel by reason of an order or rule under Section 125 of the Act.
  - g. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste.
  - h. Use of an alternative fuel or raw material by a stationary source that either:
    - (1) The source was capable of accommodating before December 12, 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 A.A.C R18-2; or

- (2) The source is approved to use under any permit issued under 40 CFR 52.21, or under Articles 3 or 4 of A.A.C R18-2.
  - i. 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 12, 1976, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter.
  - j. Any change in ownership at a stationary source
  - k. 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.
  - l. 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.
  - m. 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.
3. Construction of one or more new emissions units that have the potential to emit regulated minor NSR pollutants at an amount greater than the permitting exemption threshold.
4. A change constitutes a minor NSR modification regardless of whether there will be a net decrease in total source emissions or a net increase in total source emissions that is less than the permitting exemption threshold as a result of decreases in the potential to emit of other emission units at the same stationary source.
5. For purposes of this subsection:
  - a. "Potential to emit" means the lower of a source's or emission unit's potential to emit or its allowable emissions.
  - b. In determining potential to emit, the fugitive emissions of a stationary source shall not be considered unless the source belongs to a section 302(j) category.
  - c. All of the roadways located at a stationary source constitute a single emissions unit

**Minor Source** means a source of air pollution which is not a major source for the purposes of Article 4 and over which the Director, acting pursuant to A.R.S. § 49-402(B), has asserted jurisdiction.

**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 which 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<sup>6</sup>. The following exemptions apply:

1. A physical or operational change does not include routine maintenance, repair or replacement.
2. 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.
3. A change in ownership at a source is not considered a modification.

**National Ambient Air Quality Standards (NAAQS)** means the ambient air pollutant concentration limits established by the Administrator pursuant to section 109 of the Act.

**Permitting Exemption Thresholds** means the following:

Pollutant	Emissions Rate
PM <sub>2.5</sub> (primary emissions only)	5 tons per year
PM <sub>10</sub>	7.5 tons per year
SO <sub>2</sub>	20 tons per year
NO <sub>x</sub>	20 tons per year
VOCs	20 tons per year
CO	50 tons per year
Lead	0.3 tons per year

**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.

**Regulated Air Pollutant** means any of the following:

1. Any conventional air pollutant.
2. Nitrogen oxides and volatile organic compounds.
3. Any air contaminant that is subject to a standard contained in Article 9 of A.A.C. R18-2.
4. Any hazardous air pollutant as defined in Article 17 of A.A.C. R18-2.
5. Any Class I or II substance listed in section 602 of the Clean Air Act.

**Regulated NSR Pollutant** means any of the following:

1. Any pollutant for which a national ambient air quality standard has been promulgated and any pollutant identified under this subsection as a constituent or precursor to such pollutant. Precursors for purposes of NSR are the following:
  - a. Volatile organic compounds and nitrogen oxides are precursors to ozone in all areas.
  - b. Sulfur dioxide is a precursor to PM<sub>2.5</sub> in all areas.
  - c. Nitrogen oxides are precursors to PM<sub>2.5</sub> in all areas.
2. Any pollutant that is subject to any standard promulgated under Article 9 of this A.A.C R18-2.
3. 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.
4. Notwithstanding the above three, the term regulated NSR pollutant shall not include any or all hazardous air pollutants listed under A.A.C. R18-2-1101, 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 as of July 1, 2010.
5. Particulate matter emissions, 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 particulate matter, PM<sub>2.5</sub> and PM<sub>10</sub> in permits issued under Article 4.

**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:

1. VOC and nitrogen oxides as precursors to ozone
2. Nitrogen oxides and sulfur dioxide as precursors to PM<sub>2.5</sub>

**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:

1. The necessity of imposing the controls in order to attain and maintain a national ambient air quality standard;
2. The social, environmental, energy and economic impact of the controls;
3. Control technology in use by similar sources; and
4. The capital and operating costs and technical feasibility of the controls.

**Responsible Official** means one of the following:

1. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more

manufacturing, production, or operating facilities applying for or subject to a permit and either:

- a. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
  - b. The delegation of authority to such representatives is approved in advance by the permitting authority;
2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
  3. For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA).
  4. For affected sources:
    - a. The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the Act or the regulations promulgated thereunder are concerned; and
    - b. The designated representative for any other purposes under 40 CFR 70.

**Significant** means, in reference to a significant emissions increase, a net emissions increase or a stationary source's potential to emit or uncontrolled potential to emit a regulated NSR pollutant:

1. 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
Particulate matter	25 tpy
PM <sub>10</sub>	15 tpy
PM <sub>2.5</sub>	10 tpy of direct PM <sub>2.5</sub> emissions; 40 tpy of sulfur dioxide emissions; 40 tpy of nitrogen oxide emissions.
VOCs	40 tpy
Lead	0.6 tpy
Fluorides	3 tpy
Sulfuric acid mist	7 tpy
Hydrogen sulfide (H <sub>2</sub> S)	10 tpy

Pollutant	Emissions Rate
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 organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	3.5 x 10 <sup>-6</sup> tpy
Municipal waste combustor metals (measured as particulate matter)	15 tpy
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	40 tpy
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	50 tpy
Any regulated NSR pollutant not specifically listed in this above	Any emission rate

2. In ozone nonattainment areas classified as serious or severe, the emission rate for nitrogen oxides or VOC determined under A.A.C. R18-2-405.
3. 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.
4. Notwithstanding the emission rates listed in 1 and 2 above, for purposes of determining the applicability of A.A.C. 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).

**Stationary Source** means any building, structure, facility or installation subject to regulation pursuant to A.R.S. § 49-426(A) which emits or may emit any air pollutant. “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.”

**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:

1. Low-Emitting Combustion
  - a. Combustion emissions from propulsion of mobile sources;
  - b. Emergency or backup electrical generators at residential locations;

- c. 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;
2. Low- Or Non-Emitting Industrial Activities
- a. Blacksmith forges;
  - b. 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;
  - c. 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;
  - d. Drop hammers or hydraulic presses for forging or metalworking;
  - e. Air compressors and pneumatically operated equipment, including hand tools;
  - f. Batteries and battery charging stations, except at battery manufacturing plants;
  - g. Drop hammers or hydraulic presses for forging or metalworking;
  - h. 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;
  - i. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation;
  - j. Equipment used for surface coating, painting, dipping, or spraying operations, except those that will emit VOC or HAP;
  - k. CO2 lasers used only on metals and other materials that do not emit HAP in the process;
  - l. 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;
  - m. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants;
  - n. Laser trimmers using dust collection to prevent fugitive emissions;
  - o. Process water filtration systems and demineralizers;
  - p. Demineralized water tanks and demineralizer vents;
  - q. Oxygen scavenging or de-aeration of water;
  - r. Ozone generators;
  - s. Steam vents and safety relief valves;
  - t. Steam leaks; and

- u. Steam cleaning operations and steam sterilizers;
  - v. Use of vacuum trucks and high pressure washer/cleaning equipment within the stationary source boundaries for cleanup and insource transfer of liquids and slurried solids to waste water treatment units or conveyances;
  - w. Equipment using water, water and soap or detergent, or a suspension of abrasives in water for purposes of cleaning or finishing.
  - x. Electric motors.
3. Building and Site Maintenance Activities
- a. 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;
  - b. 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;
  - c. Janitorial services and consumer use of janitorial products;
  - d. Landscaping activities;
  - e. Routine calibration and maintenance of laboratory equipment or other analytical instruments;
  - f. Sanding of streets and roads to abate traffic hazards caused by ice and snow;
  - g. Street and parking lot striping;
  - h. Caulking operations which are not part of a production process.
4. Incidental, Non-Industrial Activities
- a. Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the Act;
  - b. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing, industrial or commercial process;
  - c. Tobacco smoking rooms and areas;
  - d. Non-commercial food preparation;
  - e. General office activities, such as paper shredding, copying, photographic activities, pencil sharpening and blueprinting, but not including incineration;
  - f. Laundry activities, except for dry-cleaning and steam boilers;
  - g. Bathroom and toilet vent emissions;
  - h. Fugitive emissions related to movement of passenger vehicles, if the emissions are not counted for applicability purposes under subsection (144)(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;
  - i. 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;
  - j. Activities directly used in the diagnosis and treatment of disease, injury or other medical condition;
  - k. Circuit breakers;
  - l. Adhesive use which is not related to production.
5. Storage, Piping and Packaging
- a. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP;
  - b. 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;
  - c. Chemical storage associated with water and wastewater treatment where the water is treated for consumption and/or use within the permitted facility;
  - d. Chemical storage associated with water and wastewater treatment where the water is treated for consumption and/or use within the permitted facility;
  - e. Storage cabinets for flammable products;
  - f. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;
  - g. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
6. Sampling and Testing
- a. Vents from continuous emissions monitors and other analyzers;
  - b. Bench-scale laboratory equipment used for physical or chemical analysis, but not laboratory fume hoods or vents;
  - c. Equipment used for quality control, quality assurance, or inspection purposes, including sampling equipment used to withdraw materials for analysis;
  - d. Hydraulic and hydrostatic testing equipment;
  - e. Environmental chambers not using HAP gases;
  - f. Soil gas sampling;
  - g. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units;
7. Safety Activities
- a. Fire suppression systems;
  - b. Emergency road flares;
8. Miscellaneous Activities
- a. Shock chambers;
  - b. Humidity chambers;
  - c. Solar simulators;
  - d. Cathodic protection systems;

- e. High voltage induced corona; and
- f. Filter draining.