

# APPLICATION PACKET FOR A CLASS I PERMIT



## Arizona Department of Environmental Quality

### Air Quality Division

1110 West Washington • Phoenix, AZ 85007 • Phone: (602) 771-2338

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# SECTION 1.0 - GENERAL INFORMATION

## 1.1 OPPORTUNITIES TO CONSULT

The Department is available for consultation meetings. For complex and time-sensitive projects, it is strongly recommended that facilities request a pre-application meeting where discussions can focus on timeline expectations and application components necessary for processing of the permit.

Additionally, the Department recommends a permit application submittal meeting whereby facility personnel and their consultants can meet with Department staff. In such a meeting, an application component review can be conducted and any missing pieces of information can be identified. Such meetings should realize fairly substantial decreases in the time necessary to process the permit.

All requests should be made by contacting the Department at (602) 771-2338.

## 1.2 MINOR NSR APPLICABILITY

Any Class I Permit or Permit Revision may be subject to Minor New Source Review. Applicants are advised to refer to Minor NSR Review Guidance Document available at:

Also, Section 2.5 of this package provides the method for determining Minor NSR Applicability for new and modified sources.

## ADEQ TIMEFRAME FOR ADMINISTRATIVE COMPLETENESS REVIEW

- 1.3 ADEQ will determine if the permit application is administratively complete within 10 calendar days after a permit application is received.

## ADEQ TIMEFRAME FOR PROCESSING CLASS I PERMITS

- 1.4 After receiving a complete permit application, ADEQ will strive to take final action on the permit application within the following timeframes:

Class I PSD/ NNSR Permit:	365 calendar days
Class I Permit:	180 calendar days
Significant Permit Revision:	180 calendar days
Minor Permit Revision:	75 calendar days

## Section 1.5 -Fee Rule Summary for Class I Sources - Revised 2016

*Effective November 1, 2016*

### PERMIT PROCESSING FEE

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">INDIVIDUAL PERMIT APPLICATION FEE</td> <td style="text-align: right;"><b>None</b></td> </tr> <tr> <td>GENERAL PERMIT APPLICATION FEE</td> <td style="text-align: right;"><b>\$500</b></td> </tr> <tr> <td>ACCELERATED PERMIT APPLICATION FEE</td> <td style="text-align: right;"><b>\$15,000</b></td> </tr> </table>	INDIVIDUAL PERMIT APPLICATION FEE	<b>None</b>	GENERAL PERMIT APPLICATION FEE	<b>\$500</b>	ACCELERATED PERMIT APPLICATION FEE	<b>\$15,000</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">PERMIT PROCESSING FEE PER HOUR</td> <td style="text-align: right;"><b>\$155.50</b></td> </tr> <tr> <td colspan="2"><i>(New, Renewal, Minor Revision, Significant Revision)</i></td> </tr> <tr> <td>PERMIT TRANSFERS</td> <td style="text-align: right;"><b>None</b></td> </tr> <tr> <td>ADMINISTRATIVE AMENDMENTS</td> <td style="text-align: right;"><b>None</b></td> </tr> </table>	PERMIT PROCESSING FEE PER HOUR	<b>\$155.50</b>	<i>(New, Renewal, Minor Revision, Significant Revision)</i>		PERMIT TRANSFERS	<b>None</b>	ADMINISTRATIVE AMENDMENTS	<b>None</b>
INDIVIDUAL PERMIT APPLICATION FEE	<b>None</b>														
GENERAL PERMIT APPLICATION FEE	<b>\$500</b>														
ACCELERATED PERMIT APPLICATION FEE	<b>\$15,000</b>														
PERMIT PROCESSING FEE PER HOUR	<b>\$155.50</b>														
<i>(New, Renewal, Minor Revision, Significant Revision)</i>															
PERMIT TRANSFERS	<b>None</b>														
ADMINISTRATIVE AMENDMENTS	<b>None</b>														

### ANNUAL FEES (Due by February 1 of each year)

#### INDIVIDUAL PERMITS

<u><b>Administrative Fee</b></u>		<u><b>Emissions Based Fee</b></u>	
Aerospace	\$ 24,230	Fee Per Ton of Regulated Air Pollutant	<b>\$ 44.60</b>
Air Curtain Destructors	\$ 870		
Cement Plants	\$ 74,190		
Combustion/Boilers	\$ 18,030		
Compressor Stations	\$ 14,830		
Electronics	\$ 23,870		
Expandable Foam	\$ 17,100		
Foundaries	\$ 22,740		
Landfills	\$ 18,590		
Lime Plants	\$ 70,080		
Copper & Nickel Plants	\$ 17,470		
Gold Mines	\$ 17,470		
Mobile Home Manufacturing	\$ 17,280		
Paper Milles	\$ 23,860		
Paper Coaters	\$ 18,030		
Petroleum Products Terminals	\$ 26,480		
Polymeric Fabric Coaters	\$ 23,860		
Reinforced Plastics	\$ 18,030		
Semiconductors Fabrication	\$ 31,370		
Copper Smelters	\$ 74,190		
Utilities - Fossil Fuel Fired Except Coal	\$ 19,150		
Utilities - Coal Fired	\$ 37,940		
Vitamin/Pharmaceutical	\$ 18,410		
Wood Furniture	\$ 18,030		
Others	\$ 23,870		
Others with Continuous Emission Monitoring	\$ 23,870		

## SECTION 2.0

# CLASS I PERMIT APPLICATION PACKAGE

**SECTION 2.1**  
**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Air Quality Division**  
**1110 West Washington • Phoenix, AZ 85007 • Phone: (602) 771-2338**

**STANDARD CLASS I PERMIT APPLICATION FORM**  
*(As required by A.R.S. § 49-426, and Chapter 2, Article 3, Arizona Administrative Code)*

1. Permit to be issued to (Business license name of organization that is to receive permit):  
\_\_\_\_\_
2. Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_
3. Name (or names) of Owners/ Principals: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_
4. Name of Owner's Agent: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_
5. Plant/Site Manager/ Contact Person and Title: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_
6. Plant Site Name: \_\_\_\_\_
7. Plant Site Location Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Indian Reservation (if applicable, which one): \_\_\_\_\_  
Latitude/ Longitude, Elevation: \_\_\_\_\_  
Section/ Township/ Range: \_\_\_\_\_
8. General Nature of Business: \_\_\_\_\_
9. Type of Organization:  
 Corporation  Individual Owner  Partnership  Government Entity (Government Facility Code: -----)  
 Other \_\_\_\_\_
8. Permit Application Basis:  New Source  Revision  Renewal of Existing Permit  
*(Check all that apply.)*  
For renewal or modification, include existing permit number (and exp. date): \_\_\_\_\_  
Date of Commencement of Construction or Modification: \_\_\_\_\_  
Primary Standard Industrial Classification Code: \_\_\_\_\_
9. I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by ADEQ as public record. I also attest that I am in compliance with the applicable requirements of the Permit and will continue to comply with such requirements and any future requirements that become effective during the life of the Permit. I will present a certification of compliance to ADEQ no less than annually and more frequently if specified by ADEQ. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with Arizona Administrative Code, Title 18, Chapter 2 and any permit issued thereof.  
Signature of Responsible Official: \_\_\_\_\_  
Official Title of Signer: \_\_\_\_\_  
Typed or Printed Name of Signer: \_\_\_\_\_  
Date: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

## SECTION 2.2 - EMISSION SOURCES

PAGE \_\_\_\_ OF \_\_\_\_  
DATE \_\_\_\_\_

Estimated "Potential to Emit" per A.A.C. R18-2-101.

Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table.

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS									
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]			NONPOINT			
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/HR. [3]	TONS/YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]	
										DIA (ft.)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL \_\_\_\_\_ feet  
ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

**General Instructions:**

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits, and Emissions Inventory Questionnaire. Include fugitive emissions. Limit emission point number to eight (8) character spaces. For each emission point use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler, tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are O.K.
2. Components to be listed include regulated air pollutants as defined in A.A.C. R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), Volatile Organic Compounds (VOC), particulate matter (PM), particulate less than 10 microns (PM<sub>10</sub>), etc. Abbreviations are O.K.
3. Pounds per hour (#/HR) is maximum potential emission rate expected by applicant.
4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.
5. As a minimum applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purposes of demonstrating compliance with ambient air quality guidelines.
6. Supply additional information as follows if appropriate:
  - (a) Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate if horizontal discharge with a note.
  - (b) Stack's height above supporting or adjacent structures if structure is within 3 "stack height above the ground" of stack.
7. Dimensions of nonpoint sources as defined in A.A.C. R18-2-101.

## SECTION 2.3 - EQUIPMENT LIST

The following table should include all equipment utilized at the facility, and should be completed with all the requested information. Be sure to notate the units (tons/hour, horsepower, etc.) when recording the Maximum Rated Capacity information, the Serial Number and/or the Equipment ID Number. The date of manufacture must be included in order to determine if portions of the facility are NSPS applicable. Make additional copies of this form if necessary.

<b>Type of Equipment</b>	<b>Maximum Rated Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Serial Number</b>	<b>Date of Manufacture</b>	<b>Equipment ID Number</b>



## SECTION 2.4 - PERMIT APPLICATION FORM FILING INSTRUCTIONS

No application shall be considered properly filed until the Director has determined that all information required by this application form and the applicable statutes and regulations has been submitted. The Director may waive certain application requirements for specific source types. For Permit Revision applications, the applicant need only supply the information directly related to the revision. In addition to the information required on the application form, the applicant shall supply the following:

1. Description of the process to be carried out in each unit (include Source Classification Code).
2. Description of product(s).
3. Description of alternate operating scenario, if desired by applicant (include Source Classification Code).
4. Description of alternate operating scenario product(s), if applicable.
5. A flow diagram for all processes.
6. A material balance for all processes (optional, only if emission calculations are based on a material balance).
7. Emissions Related Information:
  - a. The source shall submit the potential emissions of regulated air pollutants as defined in A.A.C. R18-2-101 for all emission sources. Emissions shall be expressed in pounds per hour, tons per year, and such other terms as may be requested. Emissions shall be submitted using the standard "Emission Sources" portion of the "Standard Permit Application Form." Emissions information shall include fugitive emissions in the same manner as stack emissions, regardless of whether the source category in question is included in the list of sources contained in the definition of major source in A.A.C. R18-2-101.
  - b. The source shall identify and describe all points of emissions, and shall submit additional information related to the emissions of regulated air pollutants sufficient to verify which requirements are applicable to the source and sufficient to determine any fees under this Chapter.
8. Citation and description of all applicable requirements as defined in A.A.C. R18-2-101 including voluntarily accepted limits pursuant to A.A.C. R18-2-306.01.
9. An explanation of any proposed exemptions from otherwise applicable requirements.
10. The following information to the extent it is needed to determine or regulate emissions or to comply with the requirements of A.A.C. R18-2-306.01:
  - a. Maximum annual process rate for each piece of equipment which generates air emissions.
  - b. Maximum annual process rate for the whole plant.
  - c. Maximum rated hourly process rate for each piece of equipment which generates air emissions.
  - d. Maximum rated hourly process rate for the whole plant.
  - e. For all fuel burning equipment including generators, a description of fuel use, including the type used, the quantity used per year, the maximum and average quantity used per hour, the percent used for process heat, and higher heating value of the fuel. For solid fuels and fuel oils, state the potential sulfur and ash content.

- f. A description of all raw materials used and the maximum annual and hourly, monthly, or quarterly quantities of each material used.
  - g. Anticipated Operating Schedules
    - (i) Percent of annual production by season.
    - (ii) Days of the week normally in operation.
    - (iii) Shifts or hours of the day normally in operation.
    - (iv) Number of days per year in operation.
  - h. Limitations on source operations and any work practice standards affecting emissions.
11. A description of all process and control equipment for which permits are required including:
- a. Name.
  - b. Make (if available).
  - c. Model (if available).
  - d. Serial number (if available).
  - e. Date of manufacture (if available).
  - f. Size/production capacity.
  - g. Type.
12. Stack Information:
- a. Identification.
  - b. Description.
  - c. Building Dimensions.
  - d. Exit Gas Temperature.
  - e. Exit Gas Velocity.
  - f. Height.
  - g. Inside Dimensions.
13. Site diagram which includes:
- a. Property boundaries.
  - b. Adjacent streets or roads.
  - c. Directional arrow.
  - d. Elevation.
  - e. Closest distance between equipment and property boundary.
  - f. Equipment layout.

- g. Relative location of emission sources or points.
- h. Location of emission points and non-point emission areas.
- i. Location of air pollution control equipment.

14. Air Pollution Control Information:

- a. Description of or reference to any applicable test method for determining compliance with each applicable requirement.
- b. Identification, description and location of air pollution control equipment, including spray nozzles and hoods, and compliance monitoring devices or activities.
- c. The rated and operating efficiency of air pollution control equipment.
- d. Data necessary to establish required efficiency for air pollution control equipment (e.g. air to cloth ratio for baghouses, pressure drop for scrubbers, and warranty information).
- e. Evidence that operation of the new or modified pollution control equipment will not violate any ambient air quality standards, or maximum allowable increases under A.A.C. R18-2-218.

15. Equipment manufacturer's bulletins or shop drawings are acceptable for the purposes of supplying the information required by any item in numbers 11, 12, or 14 above.

16. Compliance Plan:

- a. A description of the compliance status of the source with respect to all applicable requirements including, but not limited to:
  - (i) A demonstration that the source or modification will comply with the applicable requirements contained in Article 6.
  - (ii) A demonstration that the source or modification will comply with the applicable requirements contained in Article 7.
  - (iii) A demonstration that the source or modification will comply with the applicable requirements contained in Article 8.
  - (iv) A demonstration that the source or modification will comply with the applicable requirements contained in Article 9.
  - (v) A demonstration that the source or modification will comply with the applicable requirements contained in Article 11 and in rules promulgated pursuant to A.R.S. § 49-426.03.
  - (vi) A demonstration that the source or modification will comply with the applicable requirements contained in Article 17.
  - (vii) A demonstration that the source or modification will comply with any voluntarily accepted limitations pursuant to A.A.C. R18-2-306.01.
- b. A compliance schedule as follows:
  - (i) For applicable requirements with which the source is in compliance, a statement that the source

will continue to comply with such requirements.

(ii) For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner applicable requirements that become effective during the permit term shall satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirement.

(iii) A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

c. A schedule for submission of certified progress reports no less frequently than every 6 months for sources required to have a schedule of compliance to remedy a violation.

d. The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the Act and incorporated pursuant to A.A.C. R18-2-333 with regard to the schedule and method(s) the source will use to achieve compliance with the acid rain emissions limitations.

17. Compliance Certification:

A certification of compliance with all applicable requirements including voluntarily accepted limitations pursuant to A.A.C. R18-2-306.01 by a responsible official consistent with A.A.C. R18-2-309.5. The certification shall include:

a. Identification of the applicable requirements which are the basis of the certification;

b. A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods;

c. A schedule for submission of compliance certifications during the permit term to be submitted no less frequently than annually, or more frequently if specified by the underlying applicable requirement or by the permitting authority; and

d. A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements.

e. A certification of truth, accuracy, and completeness pursuant to A.A.C. R18-2-304.H.

18. Acid Rain Program Compliance Plan:

Sources subject to the Federal acid rain regulations shall use nationally-standardized forms for acid rain portions of permit applications and compliance plans, as required by regulations promulgated under Title IV of the Act and incorporated pursuant to A.A.C. R18-2-333.

19. A new major source as defined in A.A.C. R18-2-401 or a major modification shall submit all information required

in this Section and information necessary to show compliance with Article 4 including, but not limited to:

a. For sources located in a Non-Attainment Area:

- (i) In the case of a new major source as defined in A.A.C. R18-2-401 or a major modification subject to an emission limitation which is LAER (Lowest Achievable Emission Rate) for that source or facility, the application shall contain a determination of LAER that is consistent with the requirements of the definition of LAER contained in A.A.C. R18-2-101. The demonstration shall contain the data and information relied upon by the applicant in determining the emission limitation that is LAER for the source or facility for which a permit is sought.
- (ii) In the case of a new major source as defined in A.A.C. R18-2-401 or a major modification subject to the certification requirement of A.A.C. R18-2-403.A.2, the applicant shall submit such certification in a form that lists and describes all existing major sources owned or operated by the applicant and a statement of compliance with all conditions contained in the permits or conditional orders of each of the sources.
- (iii) In the case of a new major source as defined in A.A.C. R18-2-401 or a major modification subject to the offset requirements described in A.A.C. R18-2-403.A.3, the applicant shall demonstrate the manner in which the new major source or major alteration meets the requirements of A.A.C. R18-2-404.
- (iv) An applicant for a new major source as defined in A.A.C. R18-2-401 or a major modification for volatile organic compounds or carbon monoxide (or both) which will be located in a nonattainment area for photochemical oxidants or carbon monoxide (or both) shall submit the analysis described in A.A.C. R18-2-403.B.

b. For sources located in an Attainment Area:

- (i) A demonstration of the manner in which a new major source or major modification which will be located in an attainment area for a pollutant for which the source is classified as a major source as defined in A.A.C. R18-2-401 or the modification is classified as a major modification will meet the requirements of A.A.C. R18-2-406.
- (ii) In the case of a new major source as defined in A.A.C. R18-2-401 or major modification subject to an emission limitation which is BACT (Best Available Control Technology) for that source or facility, the application shall contain a determination of BACT that is consistent with the requirements of the definition of BACT contained in A.A.C. R18-2-101. The demonstration shall contain the data and information relied upon by the applicant in determining the emission limitation that is BACT for the source or facility for which a permit is sought.
- (iii) In the case of a new major source as defined in A.A.C. R18-2-401 or major alteration required to perform and submit an air impact analysis in the form prescribed in A.A.C. R18-2-407, such an analysis shall meet the requirements of A.A.C. R18-2-406. Unless otherwise exempted in writing by the Director, the air impact analysis shall include all of the information and data specified in A.A.C. R18-2-407.
- (iv) If an applicant seeks an exemption from any or all of the requirements of A.A.C. R18-2-406, the applicant shall provide sufficient information and data in the application to demonstrate compliance with the requirements of the subsection(s) under which an exemption is sought.

20. Calculations on which all information requested in this application is based.

# SUBMITTING A COMPLETE PERMIT APPLICATION

These directions are to be used in conjunction with the Standard Permit Application and Filing Instructions contained in Section 2.4 of this package, and are to be used for permit applications to construct new, reconstruct, renew, or modify existing equipment.

The application form and filing instructions are designed to assist the applicant in providing the information which will allow the Arizona Department of Environmental Quality (ADEQ) to determine the applicable regulations, determine if the standards will be met, and determine the applicable fees.

## Standard Permit Application Form (Page 6 of the Application Packet)

ADEQ requires all applicants to submit the Standard Application Form.

*Items #1 through #5* of the application form are self-explanatory. The rest are explained below in detail.

*Item #6* asks for the Plant/Site Manager or Contact Person. This should be the person who is responsible for implementing the permit at the facility and the person ADEQ may contact for additional information.

*Item #7* requests the current or proposed location of the facility.

*Item #8* asks for the general nature of business. This should be in terms of what is produced at the plant.

*Item #9*, if the "other" box is checked, please be specific as to what the organization is.

*Item #10*, Permit Application Basis, indicates what type of permit is necessary. If the facility is already permitted and is applying for a permit revision or renewal, then the current permit number must be included. The Date of Commencement of Construction or Modification is the expected date that construction will begin. This date need not be definite. The Standard Industrial Classification Code is a number which describes the type of facility. The State Permit Class is the class of permit which was issued to the facility under the previous permitting program. The state permit class and Standard Industrial Classification Code can be obtained by contacting ADEQ at (800) 234-5677, extension 602-771-2338.

*Item #11*, The "Responsible Official" is the owner or a partner of the company in most cases. Please see the definition of "Responsible Official" in Section 3.0 of this package.

## Citation and Description of all Applicable Requirements

Applicants must list all federal and state requirements which apply to the source. These may include:

- Federal New Source Performance Standards (NSPS)
- National Emission Standards for Hazardous Air Pollutant (NESHAP)
- PSD/ NSR permit requirements
- Testing requirements
- Monitoring requirements
- Acid Rain Program requirements

"Insignificant Activities" listed in A.A.C. R18-2-101.68 are exempt from permitting.

*Note:* Insignificant activities must be listed in the application but the associated emissions or equipment details need not be included.

## Process Description

This description should help ADEQ staff to understand the manufacturing process used at the facility. The description should include description of the:

- Process to be carried out in each unit
- Products
- Raw materials, intermediates and products (including fuels, solvents etc.) and
- Process flow diagram (should track the process description)

## Description of Alternate Operating Scenarios

Applicants may submit alternating operating scenarios (AOS) for operational flexibility. Advantages are:

- AOS are incorporated into the permit and allows operational changes without a permit revision
- Source need not contact ADEQ to switch to alternate operating scenario, but must keep a record.

Examples include varying:

- Fuels
- Solvents
- Equipment Configurations
- Products
- Raw Materials

Application must include for each scenario:

- Additional regulations which apply to the Scenario
- Process Description
- Process Flow Diagram

## Site Diagram

- Equipment and Building Layout
- Building Heights
- Location of Emission Points
- Property Boundaries
- Adjacent Streets
- Directional Arrow
- Elevation
- Scale (ADEQ will accept diagrams which are not scaled, but all dimensions must be shown)

## Air Pollution Control Information

- Identification, location, and description of air pollution control equipment and techniques for example:
  - scrubbers
  - spray nozzles
  - water trucks
  - compliance monitoring activities
- Rated and operating efficiency of control equipment (rated efficiency should be available from the manufacturer of

the equipment)

- Data used to establish efficiency for example:
  - Air-to-cloth Ratio for Baghouses
  - Pressure Drop for Scrubbers
  - May include warranty or manufacturer guarantee
- Evidence that the new or modified equipment will not violate any ambient air quality standards or PSD increments
  - Typically for a change in equipment at larger sources
- Description of, or reference to, any applicable test method for determining compliance with all requirements

#### Description of all Process and Control Equipment Requiring a Permit Including

- Type of Equipment
- Make
- Model
- Serial Number
- Date of Manufacture
- Rated Capacity or Control Efficiency

*Note:* Not all of the above information will be available to the applicant upon submitting an application. In such a case the application should include at least the type and the anticipated capacity of the equipment.

#### Emissions

Applicants must submit the potential emissions of the facility. Emission estimates allow ADEQ to determine the applicable requirements, the ambient air impacts, and whether or not the standards can be met.

#### Potential Emissions

- Maximum capacity of a source to emit a pollutant under its physical and operational design
- Physical and operational design includes:
  - Limitations on hours of operation
  - Operational limitations on process rate
  - Pollution Controls  
(These limitations may be included in the final permit)
- Regulated air pollutants
  - Conventional (PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>x</sub>, VOC, CO, Pb, Ozone)
  - Federal Hazardous Air Pollutants (189 compounds)
  - State Hazardous Air Pollutants (not yet finalized)
  - Others (any pollutant subject to a standard, and certain CFCs and HCFCs)
- Include fugitive emissions

#### Emissions for Alternate Operating Scenarios

- Emissions for each scenario are preferred
- ADEQ may accept emissions from the scenario with the highest emission rate
- All possible compounds which may be emitted must be listed

(For example, if the applicant wants to be permitted to use two different equipment configurations which cause the same type pollutants to be emitted but at different rates, only the higher emissions need to be submitted. However, if the applicant wants to be permitted to use two different types of solvents, emissions from both solvents must be included.)



## Emission Sources Form

The Emissions Sources Form is to be used to submit the emissions in a concise manner. This form is included in Attachment 1. The emission point name and number should correspond to the site diagram. The potential emissions must be reported in terms of pounds per hour and tons per year. Universe Transmercator (UTM) coordinates are only required for major sources. The exit height of the stack above the ground and above the building must be shown. In addition, the inside dimensions or diameter of the exit as well as the exit gas velocity and exit gas temperature should be included. Finally, the length and width of the area which encompasses the fugitive emissions are required.

## Calculating Emissions

- EPA's Compilation of Air Pollutant Emission Factors (AP-42)
  - most commonly used and always accepted
  - generally does not include HAPs emissions
  - generally does not speciate VOCs
- Emission tests from a similar plant or the actual plant
- Other published studies provided conditions are similar (will be used most often to estimate HAPs)
- Engineering calculations such as a material balance
- Include all information and references used to estimate emissions (ADEQ prefers copies of the references used)

## Information Used to Estimate Emissions

- Maximum annual and hourly process rates for each piece of equipment
- Maximum annual and hourly process rates for the whole plant
- Type and composition of fuels used (e.g. sulfur content)
- Annual and hourly quantity of fuel used
- Heating value of fuel
- Annual and hourly quantity of raw materials used
- Operating schedule
  - Hours per day
  - Days Per year
  - Percent of annual production by season
- Material balance (if used)
- All calculations

## Additional Requirements for New Major Sources or Modifications in Nonattainment Areas

- Lowest achievable emission rate (LAER) determination
- Demonstration that existing sources owned by the applicant are in compliance
- Offset determination
- Site and environmental analysis

## Additional Requirements for New Major Sources or Modifications in Attainment Areas

- Demonstration of how the plant will meet requirements
- Best available control technology (BACT) determination
- Ambient air impact analysis

### Compliance Plan

- Description of compliance status of the source with respect to each requirement including any existing permit conditions (for existing sources)
- Description of how a new source or modification will comply with the applicable requirements (e.g. control schemes, record keeping, submission of reports)
- A compliance schedule is required for requirements with which the source is not in compliance

### Compliance Schedule

- A statement that the source will continue to comply with requirements with which the plant currently complies
- A statement that the source will meet requirements which become effective during the permit term
- Sequence of actions for remedial measures
- Milestones leading to compliance
- Schedule for submission of progress reports (reports must be submitted at least every six months)

### Compliance Certification

- Certification of compliance with applicable requirements (for items with which the source is in compliance)
- Statement of the methods used to determine compliance
  - Emission Testing
  - Records
  - Monitoring
  - Inspection reports by ADEQ
- Schedule for submission of compliance certifications at least annually
- Certification of truth accuracy and completeness (applies to the entire application, signed by the responsible official)

Note: Applicants are legally required to correct any incomplete or incorrect information submitted in the application upon discovery.

## SECTION 2.5 - PSD/ NNSR/ Minor NSR Applicability

This Section of the application package is intended to assist the applicant in determining the applicability of Prevention of Significant Deterioration (PSD), Non-attainment New Source Review (NNSR), and Minor New Source Review (Minor NSR).

### I. New Source

#### A. Calculations

Determine the facility-wide *potential to emit (PTE)* for each regulated air pollutant. Fugitive emissions should be included for **category sources**.

#### B. PSD Applicability for Attainment Pollutants and non-NAAQS 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 PSD requirements apply to each *regulated NSR pollutant* for which the PTE is *significant*.

#### C. NNSR Applicability for Non-Attainment Pollutants

Non-attainment New Source Review (NNSR) applies to 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.

#### D. Minor NSR Applicability

##### 1. For Class I Sources Subject to NNSR/ PSD Review under Article 4

For any *regulated minor NSR pollutant* not subject to PSD/ NNSR review, the Minor NSR program applies if the PTE for that pollutant is equal to or greater than the *permitting exemption threshold*.

##### 2. Class I Sources Not Subject NNSR/ PSD Review under Article 4

The Minor NSR program applies to each *regulated minor NSR pollutant* with the PTE equal to or greater than the *permitting exemption threshold*.

### II. Modifications

#### A. Calculations:

##### 1. For any *regulated NSR pollutant* that is previously subject to Article 4 (Major Source) (NNSR/ PSD) requirements:

Calculate the project emissions increase as well as the net emission increase following the procedures outlined in A.A.C. R18-2-402.D for such *regulated NSR pollutant*.

##### 2. For each *regulated air pollutant*:

a. Previously emitted, determine the *PTE* increase for each modified unit.

b. Not previously emitted, determine the *PTE* for each modified unit.

c. Emitted from a new emission unit, determine the *PTE* for the new unit.

- d. Determine the project **PTE** increase.

Note: 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.

B. Modification at Class I Sources Subject to Article 4

1. PSD/ NNSR Applicability

For any **regulated NSR pollutant** that is previously subject to Article 4 (Major Source) (NNSR/ PSD) requirements, determine the project emissions increase as well as net emission increase following A.A.C. R18-2-402.D for such **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.

2. Minor NSR Applicability

Unless a **regulated minor NSR pollutant** is subject to PSD/ NNSR review in 1 above, the Minor NSR Program shall be applicable to any **regulated minor NSR pollutant** with PTE increase equal to or greater than the **permitting exemption threshold**.

C. Modification at Class I Sources Not Subject to Article 4

For any **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.

D. One Time Doubling

Unless the source is an existing **major source** for NNSR/ PSD purposes, a project will not trigger PSD/NNSR review as long as the emission increases from the project remains under the applicable thresholds (100 tons per year for **categorical sources** and 250 tons per year for non-categorical sources). If the project results in the source being classified as a major source as defined in Article 4, then future projects would be evaluated for PSD/ NNSR against **significant** thresholds.

### III. Minor NSR Requirements

- A. For each **regulated minor NSR pollutant** that is subject to Minor NSR requirements, there are two options from which an applicant has to choose: Modeling or **Reasonably Available Control Technology (RACT)**. Details for each option are listed below:

1. Modeling

- a. If the applicant requests that ADEQ perform screen modeling, the applicant must provide the following:

- (1) Facility Information

- (a) Detailed facility layout;
- (b) Location of the facility's fence line;
- (c) Locations of emission points;

- (d) Location of process equipment (i.e. storage tanks, silos, conveyors, etc.), lay down areas, parking lots, haul roads, maintenance roads, storage piles, etc.; and
  - (e) Location and dimensions of all buildings at the facility.
  - (f) If a site plan becomes too crowded, a table listing all the above information can be provided instead, with the ID traceable on the plot.
- (2) Emission Profiles
- (a) Maximum hourly emission rates (lb/hr); and
  - (b) Maximum annual emission rate (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 non-vertical or vertical with obstructed emissions (such as a raincap); and
  - (g) If the stack is a non-round stack, provide length and width for a rectangular stack.

ADEQ will perform screen modeling for each pollutant subject to Minor NSR requirements. If screen modeling indicates possible interference with the NAAQS or maintenance of the NAAQS, ADEQ will inform the applicant that refined modeling is necessary to be conducted by the applicant. Refined modeling should be performed in accordance with ADEQ's modeling guidelines that are available online.

ADEQ strongly recommends that the applicant submit a modeling protocol for ADEQ's review and approval. A detailed modeling report, including all modeling files and associated information, must be included in the application.

For expedited permit processing, instead of requesting ADEQ to perform screen modeling, the Permittee may choose to perform screen modeling or refined modeling to demonstrate that the new source or modification will not interfere with the NAAQS.

## 2. RACT

If the applicant chooses to implement RACT, the following steps should be followed:

### a.

- (1) For each ***regulated minor NSR pollutant*** subject to minor NSR, evaluate each emission unit for RACT applicability.
- (2) If for any emission unit, the emissions or increase in emissions of a pollutant subject to Minor NSR requirements is greater than 20% of the ***permitting exemption threshold*** for that pollutant, ***RACT*** will be required for that pollutant and emission unit.

- (3) The application should contain the RACT determinations for all pollutants subject to minor NSR program. The application should contain the RACT determinations for all pollutants subject to minor NSR program 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:
- (a) EPA RACT/ BACT/ LAER clearinghouse  
<http://cfpub.epa.gov/RBLC/>
  - (b) 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)
  - (c) 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%20Guidance.pdf](http://maricopa.gov/aq/divisions/permit_engineering/docs/pdf/BACT%20Guidance.pdf)  
  
These rules (Rule 300 through Rule 372) are available at:  
  
[http://www.maricopa.gov/aq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx)
  - (d) A RACT standard imposed on the same type of source by a general permit.
  - (e) 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
- (4) Notwithstanding a Permittee's election to conduct a RACT evaluation for a ***regulated minor NSR Pollutant***, ADEQ may choose to use its discretion to request dispersion modeling, on case by case basis, to ensure that the NAAQS are not violated.
- (5) Please note that the facility may be in attainment for some applicable pollutants and non-attainment for others.
- (6) An application for a permit revision subject to minor NSR shall be processed as a

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 subject to minor NSR requirements:

- (a) A RACT standard under (3)(a) through (e) above is imposed on each emissions unit that requires such a standard; or
- (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 standard imposed in Article 2 of A.A.C.

### SECTION 3.0 – 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 JJJJJJ (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  
  - 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 identified in A.A.C. R18-2-101(124)(a)	PM <sub>2.5</sub> Serious	70
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:

<b>Pollutant</b>	<b>Emissions Rate</b>
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

<b>Pollutant</b>	<b>Emissions Rate</b>
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:

<b>Pollutant</b>	<b>Emissions Rate</b>
Carbon monoxide	100 tons per year (tpy)

<b>Pollutant</b>	<b>Emissions Rate</b>
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
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  $1 \mu\text{g}/\text{m}^3$  (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;
  - h. Sampling and Testing
    - i. Vents from continuous emissions monitors and other analyzers;
    - j. Bench-scale laboratory equipment used for physical or chemical analysis, but not laboratory fume hoods or vents;
    - k. Equipment used for quality control, quality assurance, or inspection purposes, including sampling equipment used to withdraw materials for analysis;
    - l. Hydraulic and hydrostatic testing equipment;
    - m. Environmental chambers not using HAP gases;
    - n. Soil gas sampling;

- o. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units;
- 6. Safety Activities
  - a. Fire suppression systems;
  - b. Emergency road flares;
  - c. Miscellaneous Activities
  - d. Shock chambers;
  - e. Humidity chambers;
  - f. Solar simulators;
  - g. Cathodic protection systems;
  - h. High voltage induced corona; and
  - i. Filter.

**SECTION 4.0 - APPLICATION ADMINISTRATIVE COMPLETENESS CHECKLIST**

	REQUIREMENT	MEETS REQUIREMENTS			COMMENT
		YES	NO	N/A	
1	Has the standard application form been completed?				
2	Has the responsible official signed the standard application form?				
3	Has a process description been provided?				
4	Are the facility's emissions documented with all appropriate supporting information?				
5	Is the facility subject to Minor NSR requirements? If the answer is "YES", answer 6a, 6b and 6c as applicable. If the answer is "NO", skip to 7.				
6.a	If the facility chooses to implement RACT, is the RACT determination included for the affected pollutants for all affected emission units?				
6.b	If the facility chooses to demonstrate compliance with NAAQS by screen modeling, is the modeling analysis included?				
6.c	If refined modeling has been conducted, is a comprehensive modeling report along with all modeling files included?				
7	Does the application include an equipment list with the type, name, make, model, serial number, maximum rated capacity, and date of manufacture?				
8	Does the application include an identification and description of Pollution Controls? (if applicable)				
9	For any application component claimed as confidential, are the requirements of AR.S. 49-432 and A.A.C. R18-2-305 addressed?				
10	For any current non-compliance issue, is a compliance schedule attached?				
11	For minor permit revision that will make a modification upon submittal of application, has a suggested draft permit been attached?				
12	For major sources, have all applicable requirements been identified?				
13	For major sources, has a CAM applicability analysis been provided? For CAM applicable units, have CAM plans been provided?				
14	For major sources subject to requirements under Article 4 of the A.A.C., have all necessary New Source Review analyses identified in the application been presented?				