

Completing a Minor NSR Application

US Environmental Protection Agency
Office of Air Quality Planning and Standards (OAQPS)
March 2025

Agenda

2

- Completing a Minor NSR Permit Application:
 1. Calculating Air Emissions
 2. Applicability Determination
 3. Completing the Permit Application or Request/Notification for Coverage
 4. Completeness Determination
 1. Site-Specific Permits
 2. General Permits
- Common Permit Application Errors
- Applicability Determination Examples:
 - ▣ Great Paint Job Applying for a True Minor Site-Specific Permit or a Permit-by-Rule

Calculating Air Emissions: Steps

3

1. Review available training materials and permit application forms to familiarize yourself with the permitting requirements.
2. Arrange a pre-application meeting with the respective EPA Regional Office or Tribal reviewing authority before submitting a permit application.
 - Ask questions about how to calculate emissions, any potential air quality modeling requirements, other applicable requirements, etc.
 - Map and information for Regional Offices at: <https://www.epa.gov/aboutepa/regional-and-geographic-offices>.
3. Conduct a facility (i.e., source) inventory.
 - Identify all units with air emissions at the facility.
4. Categorize emissions units.
 - Identify units that will be permitted, are permitted or [exempt](#).
 - For permitted units at existing sources, identify any existing enforceable emissions limits.
5. Gather data about each air emissions unit.
 - Data could include production and operational data, air emissions data, air pollution control equipment data, etc.

Calculating Emissions: Steps (Continued)

4

6. Calculate the Potential to Emit (PTE) or allowable emissions in tons per year for each unit and regulated NSR pollutant. Can include fugitive emissions if source category is considered Major pursuant to CAA Section 302(j).
- PTE is the maximum capacity of a source to emit an air pollutant based on its physical and operational design (i.e., 24 hrs/day, 7 days/week)
 - Any physical or operational limitation on the capacity of the source to emit a pollutant shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable as a practical matter (e.g., air pollution control equipment, restrictions on hours of operation, restrictions on the type or amount of material combusted, stored or processed).
 - Portions of EPA's October 1998 "[Potential to Emit: A Guide for Small Businesses](#)" may assist you in calculating PTE.
 - Allowable emissions are the maximum rated capacity of the source considering any federally enforceable limitations and the most stringent applicable standards as set forth in [40 CFR parts 60](#) (New Source Performance Standards) and [40 CFR Part 61](#) (National Emissions Standards for Hazardous Air Pollutants); the applicable Implementation Plan emissions limitations, including those with a future compliance date; or the emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.
 - How do I determine the increase in allowable emissions from a physical or operational change (i.e., modification) at my source? (40 CFR 49.153(b))

Allowable Emissions Increase Calculations per Unit Type	Allowable Emissions Increase (AEI) Calculation
For each emissions unit being added	AEI = potential to emit of the unit.
For each existing emissions unit <u>with</u> an allowable emission limit being changed or replaced	AEI = allowable emissions after the change – allowable emissions before the change. If negative value, AEI = 0.
For each existing emission unit <u>without</u> an allowable emission limit being changed or replaced	AEI = allowable emissions after the change – potential to emit before the change. If negative value, AEI = 0.

7. Sum the PTE or allowable emissions of all emissions units per pollutant to calculate the source's PTE/allowable emissions.

Applicability Determination: Steps

1. Compare the source PTE or allowable emissions per pollutant to the corresponding Minor NSR thresholds.
 ■ Table can be found at 40 CFR 49.153.
2. If the source PTE or allowable emissions per pollutant are equal to or higher than the applicable threshold, the source needs to obtain a minor NSR permit.

Regulated NSR pollutant	Minor NSR thresholds for nonattainment areas (tpy)	Minor NSR thresholds for attainment areas (tpy)
Carbon monoxide (CO)	5	10
Nitrogen oxides (NO _x)	5 ^b	10
Sulfur dioxide (SO ₂)	5	10
Volatile Organic Compounds (VOC)	2 ^b	5
PM	5	10
PM ₁₀	1	5
PM _{2.5}	0.6	3
Lead	0.1	0.1
Fluorides	NA	1
Sulfuric acid mist	NA	2
Hydrogen sulfide (H ₂ S)	NA	2
Total reduced sulfur (including H ₂ S)	NA	2
Reduced sulfur compounds (including H ₂ S)	NA	2
Municipal waste combustor emissions	NA	2
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	NA	10

^a If part of a Tribe's area of Indian country is designated as attainment and another part as nonattainment, the applicable threshold for a proposed source or modification is determined based on the designation where the source would be located. If the source straddles the two areas, the more stringent thresholds apply.

^b In extreme ozone nonattainment areas, section 182(e)(2) of the Act requires any change at a major source that results in any increase in emissions to be subject to major NSR permitting. In other words, any changes to existing major sources in extreme ozone nonattainment areas are subject to a "0" tpy threshold, but that threshold does not apply to minor sources.

Types of Tribal Minor NSR Permits and Authorizations

6

Site-Specific Permits

1. True Minor Source Permits

- ▣ Case-by-case determination of source emissions limits and control technology requirements (if any are applicable).

2. Synthetic Minor Permits

- ▣ For sources that have the capacity to emit pollutants at or above the major source thresholds but voluntarily accept emissions limitations to operate as minor sources.

3. Minor Modifications at Major Sources Permits

- ▣ For major sources that underwent a modification that resulted in air emissions below the applicable major NSR thresholds and above the Tribal Minor NSR rule NSR thresholds.

Authorizations

1. General Permits

- ▣ Requirements are determined in advance for several similar equipment types or facilities.
- ▣ Individual sources may submit a Request for Coverage form and be granted approval to construct under GP.

2. Permits by Rule

- ▣ Requirements are determined in advance for several similar equipment types or facilities.
- ▣ Individual sources submit a Notification of Coverage form to permitting authority and source can commence construction without further permitting authority action.

3. Oil and Natural Gas (O&NG) FIP

- ▣ Regulates the construction of smaller O&NG production and natural gas processing facilities in Indian Country.
- ▣ No permit application or coverage requests/notification. Source submits Part I and Part II registration forms.

Completing the Permit Application for Site Specific Permits

7

- All application forms can be found at:
 - <https://www.epa.gov/tribal-air/tribal-minor-new-source-review>

Permit Type	Permit Application
True Minor Permits	Submit the New Source Application Form, Form NEW , to the applicable EPA Regional Office . *Application not needed for emissions units and activities listed in 40 CFR 49.153(c).
Minor Modifications at an Existing Major Source Permits	Submit the New Source application form, Form NEW , to the applicable EPA Regional Office .
Synthetic Minor Permits	Submit the Synthetic Minor application form, Form SYN , to the applicable EPA Regional Office .

Completing the Permit Application for Site Specific Permits (Continued)

8

The following list includes the information that must be included in a permit application for a true minor permit, synthetic minor permit and minor modification at a major source permit.

The reviewing authority may require additional information as needed to process the permit application (e.g., air quality modeling analysis).

Identifying information, including name and address (and plant name and address if different) and the name and telephone number of the plant manager/contact.

A description of the source's processes and products.

A list of all affected emissions units (except for the exempted emissions units and activities listed in 40 CFR 49.153(c)) and for each emission point, provide stack or vent dimensions and flow information.

For each new emissions unit, the potential to emit of each regulated NSR pollutant in tpy, accounting for any proposed emissions limitations.

For each modified emissions unit, the allowable emissions of each regulated NSR pollutant in tpy before and after the change, accounting for any proposed emissions limitations.

The following information to the extent needed to determine and regulate emissions: fuels, fuel use, raw materials, production rates and operating schedules.

Identification and description of any existing air pollution control equipment and compliance monitoring devices or activities.

Any existing limitation on source operation affecting emissions or any work practice standards, where applicable, for all NSR regulated pollutants at the source.

Completeness Determination for Site-Specific Permits

9

- The EPA can only act on the information submitted in an application that is complete and correct.
- Submitting applications with missing or incorrect information delays the permit issuance process since certain types of permits have deadlines for determining the application complete (see deadlines for three permit types on the right).
- Furthermore, certain types of permits have deadlines for issuing the final permit once the application is determined complete.



True Minor Permits	Synthetic Minor and Minor Mods at Major Sources Permits
Application Completeness Review 45 days	Application Completeness Review 60 days
Public Comment Period 30 days	Public Comment Period 30 days
Public Hearing Whenever there is a significant degree of public interest or at reviewing authority discretion.	Public Hearing Whenever there is a significant degree of public interest or at reviewing authority discretion.
Permit Issuance Timeframe No later than 135 days after the application is deemed complete.	Permit Issuance Timeframe No later than 1 year after the application is deemed complete

Authorizations under a General Permit, Permit by Rule or Oil and Natural Gas FIP

10

- Sources can request to be covered by a General Permit or notify us about their desire to be covered by a Permit by Rule. EPA has created several tools to facilitate these request for coverage or notification of coverage requests:
 1. **Questionnaire:** To determine if the facility is eligible for the GP or PBR.
 2. **Instructions:** Instructions for applying for coverage under the GP or PBR.
 3. **Potential to emit (PTE) calculator:** Excel spreadsheet to assist in calculating the source air emissions.
 4. **Background document:** Background on how the permit was developed and summary of requirements.
 5. **Request for Coverage (General Permits) or Notification of Coverage (Permit by Rule) Form:** Necessary to request or notify about coverage.
 6. **Threatened and Endangered Species and Historic Properties Form:** Screening procedures documentation for threatened or endangered species and historic properties.

- For Oil and Gas sources subject to our Federal Implementation Plan (FIP), the EPA requires sources to complete three forms:
 1. **Part I Form:** General source information to register the source under the FIP.
 2. **Part II Form:** Specific emission and production information from the source within 30 days after startup of production.
 3. **Threatened and Endangered Species and Historic Properties Form:** Screening procedures documentation for threatened or endangered species and historic properties.

- All implementation tools and documents are available at:
 - <https://www.epa.gov/tribal-air/tribal-minor-new-source-review>

Completeness Determination for General Permits, Permits by Rule or Oil and Natural Gas FIP Authorizations

11

- Only necessary for sources requesting coverage under a general permit. Completeness determinations do not apply to Permits by Rule and the O&NG FIP.
- General permits 45-day completeness review:
 - ▣ Within 30 days after coverage request, permitting authority must make an initial request for any additional information necessary to process it.
 - ▣ Permit applicant must submit such information within 15 days.
 - ▣ If permit applicant does not submit the requested information within 15 days from the request for additional information, the 90-day permit issuance period for general permit will be extended by the additional days the permit applicant takes to submit the requested information.
 - ▣ If permitting authority fails to notify the permit applicant within the 30-day period, permit applicant still has 15 days to submit necessary information and the 90-day permit issuance period will not be extended.

General Permits

Application Completeness Review
45 days

Permit Issuance Timeframe
No later than 90 days after the application is deemed complete.



Common Permit Application/Authorization Issues

12

Failure to conduct pre-application meetings with the reviewing authority, particularly when there are air quality concerns or air quality modeling questions (e.g., properly defining ambient air boundaries, short stacks, etc.).

Missing information on the permit application or authorization.

Not providing supporting documentation showing how air emissions were calculated.

Not accurately calculating emissions (e.g., inappropriate or incorrect emission factors).

Submitting the wrong application form (e.g., submitting a permit application form for a new facility when the action is a modification to an existing facility).

No cultural survey documentation or completion of the specified screening procedures to address threatened or endangered species provided.

Example: Applying for a Site-Specific Permit



13

□ Background:

- Great Paint Job, Inc. is a small autobody repair and miscellaneous surface coating operation that wants to locate in an attainment area with one coating operation and a single spray gun. Spray gun operations emit Volatile Organic Compounds (VOCs).

Example adapted from
[State of Michigan Potential to Emit Guide](#)

□ Permit Application Steps:

■ Source Owner:

1. Familiarizes itself with permitting requirements and training materials.
2. Arranges pre-application meetings with applicable reviewing authority to get questions answered.
3. Conducts a facility wide inventory of all air emissions units.
 - One coating operation with one spray gun. For simplicity, other units (e.g., heaters) will not be evaluated.
4. Categorizes emissions units (permitted, unpermitted, exempt).
 - This is a new facility; thus, the unit is unpermitted, and spray guns are not exempt from regulation.
5. Gathers data for each air emissions unit.
 - Only one emissions unit, the spray gun. The gun capacity is 2 gallons per car and the coating density is 8.34 lbs/gal and contains 100 percent VOC by weight. Owner can coat a maximum of 3 cars/day.

Example: Applying for a Site-Specific Permit (Continued)



14

□ Permit Application Steps (Continued). Source Owner:

6. Calculates the potential to emit per unit and regulated NSR pollutant.

- Great Paint Job, Inc is a new source, thus it will calculate its PTE not allowable emissions.
- The gun capacity is 2 gallons per car. Owner can coat a maximum of 3 cars/day.
- The coating density is 8.34 lbs/gal and contains 100 percent VOC by weight.
- VOC Emissions:

- $(8.34 \text{ lbs coating/gal}) \times (1 \text{ lbs VOC/lb coating}) = 8.34 \text{ lbs VOC/gal coating}$

■ Annual VOC PTE:

- $(2 \text{ gal coating/car}) \times (8.34 \text{ lbs VOC/gal of coating}) = 16.68 \text{ lbs of VOC/car}$
- $(16.68 \text{ lbs VOC/car}) \times (3 \text{ cars/day}) = 50 \text{ lbs of VOC/day}$
- $(50 \text{ lbs VOC/day}) \times (365 \text{ day/yr}) \times (1 \text{ ton}/2,000 \text{ lbs}) = 9 \text{ tons of VOC/yr}$

7. Sums the PTE of all emissions units to calculate the source's PTE.

- For this example, Great Job has only one emission unit, thus, the source PTE is 9 tons of VOC/yr.

8. Compares the source PTE per pollutant to the corresponding Minor NSR threshold.

- 9 tons of VOC/yr is higher than the 5 tpy minor NSR threshold for an attainment area.

Regulated NSR pollutant	Minor NSR thresholds for nonattainment areas (tpy)	Minor NSR thresholds for attainment areas (tpy)
Volatile Organic Compounds (VOC)	2	5

9. Source is subject to minor NSR permitting because VOC PTE is higher than the applicable threshold.

Example: Submitting a Notification for Coverage under a Permit by Rule



15

□ Background:

- Great Paint Job, Inc. is a small autobody repair and miscellaneous surface coating operation that wants to locate in an attainment area with one coating operation and a single spray gun. Spray gun operations emit Volatile Organic Compounds (VOCs).

□ Permit Application Steps:

■ Source Owner:

1. Familiarizes itself with permitting requirements and training materials.
2. Arranges pre-application meetings with the applicable reviewing authority to get questions answered.
3. Conducts a facility wide inventory of all air emissions units.
 - One coating operation with a single spray gun. For simplicity, other units (e.g., dryers) will not be evaluated.
4. Categorizes emissions units (permitted, unpermitted, exempt).
 - This is a new facility; thus, the unit is unpermitted, and spray guns are not exempt from regulation.
 - Determines the source may be eligible for coverage under a permit-by-rule (PBR).
5. Gathers data for each air emissions unit.
 - Only one emissions unit, the spray gun. The gun capacity is 2 gallons per car and the coating density is 8.34 lbs/gal and contains 100 percent VOC by weight. Owner can coat a maximum of 3 cars/day.

Example: Submitting a Notification for Coverage under a PBR (Cont.)



16

6. Calculates the potential to emit per unit and regulated NSR pollutant:
 - ▣ Uses [Potential to Emit \(PTE\) calculator](#) to calculate the spray gun's PTE.
 - VOC Emissions:
 - $(8.34 \text{ lbs coating/gal}) \times (1 \text{ lbs VOC/lb coating}) = 8.34 \text{ lbs VOC/gal coating}$
 - Annual VOC PTE:
 - $(2 \text{ gal coating/car}) \times (8.34 \text{ lbs VOC/gal of coating}) = 16.68 \text{ lbs of VOC/car}$
 - $(16.68 \text{ lbs VOC/car}) \times (3 \text{ cars/day}) = 50 \text{ lbs of VOC/day}$
 - $(50 \text{ lbs VOC/day}) \times (365 \text{ day/yr}) (1 \text{ ton}/2,000 \text{ lbs}) = 9 \text{ tons of VOC/yr}$
7. Sums the PTE of all emissions units to calculate the source's PTE.
 - For this example, Great Job has only one emission unit, thus, the source PTE is 9 tons of VOC/yr.
8. Completes the [Questionnaire](#) to verify the source is eligible for the Auto Body Repair and Miscellaneous Coating Operations [PBR](#). If, eligible,
 - PBR only applies to facilities that use 5,000 gal/year or less of VOC-containing material in ozone attainment areas or 900 gal/year or less of VOC-containing material in ozone nonattainment areas.
9. Completes [Notification of Coverage](#) and [endangered species and historic properties screening process](#). Source may commence construction after complete Notification of Coverage is submitted to EPA and the tribe in the area where the source is locating.
 - EPA may still request additional information or terminate coverage under PBR if PRB requirements are not met.

Additional Information

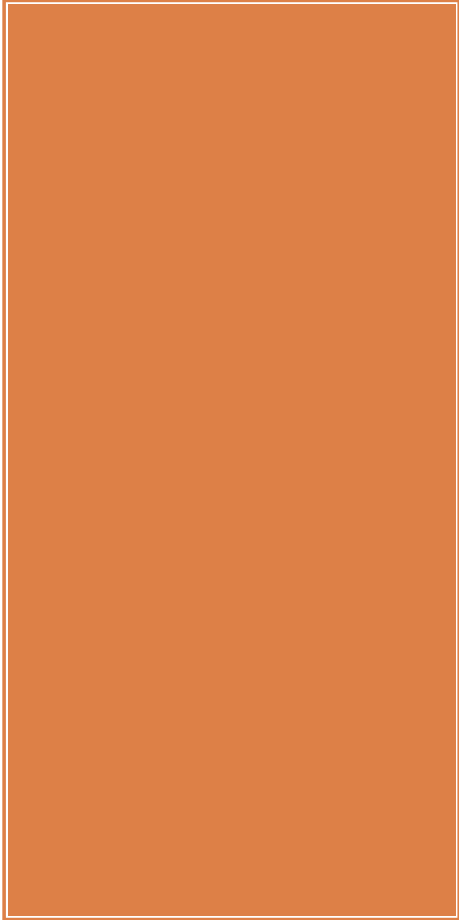
17

- Tribal Minor New Source Review Webpage

- <https://www.epa.gov/tribal-air/tribal-minor-new-source-review>

Questions

18



Appendix

Tribal Minor NSR Exempted Units

20

