



TCEQ REGULATORY GUIDANCE

Air Permits Division
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Prevention of Significant Deterioration and Nonattainment Fact Sheet

This document is a general guide to the requirements of prevention of significant deterioration (PSD) and nonattainment air permits. The information in this guidance document does not replace the discussed laws and regulations. They take priority over any information supplied here.

Prevention of Significant Deterioration (PSD) New Source Review (NSR) Permit

PSD permits authorize the construction/modification of major sources of criteria pollutants, certain non-criteria regulated pollutants located in areas that attain federal standards, and greenhouse gases (GHGs) statewide.

- **Criteria pollutant:** A regulated pollutant with a national ambient air quality standard (NAAQS).
- **Noncriteria pollutant:** A regulated pollutant with emission limits but no NAAQS. Applicants must demonstrate that these pollutants are compliant with state standards and effects screening levels. (Includes the pollutant GHGs when emissions meet the thresholds specified in Title 30, Texas Administrative Code, Subsection 116.164(a)(1) or (a)(2).)

Applicability

PSD review applies to new major sources and major modifications of existing major sources.

Two types of "major stationary source:"

- **Named:** A stationary source category listed in [40 CFR 51.166\(b\)\(1\)](#) with the potential to emit (PTE) 100 tons per year (tpy) or more of a regulated pollutant. See [Fact Sheet – PSD and Nonattainment Significant Emissions](#) for a list of named sources. Please note that fugitive emissions are included in the total tpy emission rate.
- **Un-named:** Any stationary source not listed in [40 CFR 51.166\(b\)\(1\)](#) with a PTE of 250 tpy or more of a regulated pollutant.

Any source that is major for any one regulated pollutant, is considered to be major for all regulated pollutants.

A minor source is a named or un-named source with regulated pollutant emissions that are less than the major source thresholds (100 tpy for named sources or 250 tpy for un-named sources).

When is a PSD review required?

- At a new major source for a regulated pollutant.
- At an existing major source, if the net emissions increase equals or exceeds the pollutant-specific significant emission rates (SER).
- At an existing minor source, if the project emissions increase meets either the named or the un-named major source threshold by itself (no netting allowed), then project emissions increase for all other regulated pollutants are evaluated against the SER to determine if PSD is triggered for the pollutant. If the project emissions increase equals or exceeds the SER for the pollutant, PSD is triggered for that pollutant as well.

PSD Permit Requirements

A PSD permit review requires a Best Available Control Technology (BACT) review, an air quality analysis (AQA) (including an additional impacts analysis (AIA) and a Class I analysis), and public notice.

BACT review: A control technology evaluation that considers technical practicability and economic reasonableness of the control.

AQA: An analysis that demonstrates that the the source's impact will not cause or contribute to a violation of a NAAQS or PSD increment. Air dispersion modeling and ambient air monitoring may be required. This AQA requirement does not apply to GHGs.

- **AIA:** An analysis that examines the impacts of air emissions on soils, vegetation, and visibility. The AIA requirement does not apply to GHGs.
- **Class I analysis:** An analysis that is required if the major project is located within 100 km (62 miles) of a Class I area. Refer to the [Class I Area](#) map to see potentially affected areas. The Class I analysis requirement does not apply to GHGs.

Public notice: The public notice period(s) provide the opportunity for the public to comment on the draft permit and request a contested case hearing. Public notice requirements for NSR permits are governed by 30 TAC Chapters 39 and 116. Contested case hearings do not apply to GHGs.

Nonattainment New Source Review (NNSR) Permit

NNSR permits authorize the construction/modification of major sources located in areas that do not attain federal standards. Nonattainment areas, emission limits, and offsets are pollutant specific. The source must be located in the nonattainment area and must be major for the nonattainment pollutant in order for nonattainment review to apply. GHGs do not have a NAAQS and are only regulated under PSD permits.

Major Sources for NNSR

A major source for NNSR is one that meets the major source emission threshold based on the nonattainment pollutant and area classification. A major source for NNSR may be different from a major source for PSD.

NNSR review applies to new major sources, major modifications of existing major sources, and existing minor sources when project emission increases for a nonattainment pollutant is major by itself. For information concerning current nonattainment areas and pollutants in the state see Table 4 of [TCEQ RG-635 - Prevention of Significant Deterioration and Nonattainment Major Source Significant Emissions Fact Sheet](#).

Nonattainment Review

An NNSR permit requires nonattainment review. Note that when two standards apply in a nonattainment county or area, the most stringent is used for air permitting. Table 1 provides the nonattainment classifications for criteria pollutants, the major source threshold and major modification SER, and offset ratio for each classification. Except for NO_x and VOC in serious and severe ozone nonattainment areas, the netting SER for each pollutant is equal to the major modification SER. The netting SER for NO_x and VOC in serious and severe ozone nonattainment areas is 5 tpy.

Table 1: Nonattainment classifications, Emission Thresholds, and Offset Ratios

Pollutant	Pollutant Designation	Major Source Threshold (tpy)	Major Modification Significant Emission Rate ¹ (tpy)	Offset Ratio (minimum)
Ozone (VOC, NO _x)	Marginal	100	40	1.10 to 1
Ozone (VOC, NO _x)	Moderate	100	40	1.15 to 1
Ozone (VOC, NO _x)	Serious	50	25	1.20 to 1
Ozone (VOC, NO _x)	Severe	25	25	1.30 to 1
Carbon monoxide (CO)	Moderate	100	100	1.00 to 1 ²
Carbon monoxide (CO)	Serious	50	50	1.00 to 1 ³
Sulfur dioxide (SO ₂)	N/A ⁴	100	40	1.00 to 1 ⁵
PM ₁₀ (includes condensable emissions)	Moderate	100	15	1.00 to 1 ⁶
PM ₁₀ (includes condensable emissions)	Serious	70	15	1.00 to 1 ⁷
PM _{2.5} (includes condensable emissions)	Moderate	100	10	1.00 to 1 ⁸
PM _{2.5} (includes condensable emissions)	Serious	70	10	1.00 to 1 ⁹
Oxides of nitrogen (NO _x)	N/A ¹⁰	100	40	1.00 to 1 ¹¹
Lead (Pb)	N/A ¹²	100	0.60	1.00 to 1 ¹³

¹ The significant level is applicable only to existing major sources and shall be evaluated after netting, unless the applicant chooses to apply NNSR directly to the project. The appropriate netting significance levels for existing major sources of NO_x and VOC as ozone precursors are specified in §116.150 (relating to New Major Source or Major Modification in Ozone Nonattainment Areas) and for other pollutants are equal to the significant level listed in this table.

² The offset ratio is specified to be greater than 1.00 to 1.

³ The offset ratio is specified to be greater than 1.00 to 1.

⁴ Refer to 40 CFR § 51.165 for more information.

⁵ The offset ratio is specified to be greater than 1.00 to 1.

⁶ The offset ratio is specified to be greater than 1.00 to 1.

⁷ The offset ratio is specified to be greater than 1.00 to 1.

⁸ The offset ratio is specified to be greater than 1.00 to 1.

⁹ The offset ratio is specified to be greater than 1.00 to 1.

¹⁰ Refer to 40 CFR § 51.165 for more information.

¹¹ The offset ratio is specified to be greater than 1.00 to 1.

¹² Refer to 40 CFR § 51.165 for more information.

¹³ The offset ratio is specified to be greater than 1.00 to 1.

NNSR Permit Requirements

NNSR requires a Lowest Achievable Emission Rate (LAER) technology evaluation, emissions offsets, and public notice. Unlike BACT, LAER does not consider economic impacts.

LAER: The most stringent emission limitation of either.

- contained in the State Implementation Plan (SIP) of any state for such class or category of source or TCEQ rule for the source or achieved in practice by such a class or source category.

Offsets: Actual emission reductions of a pollutant or precursor pollutant that is increasing. This must be obtained from within the nonattainment area.

- The offset ratio depends on the nonattainment classification. Reductions must offset the emissions increase.
- The Air Permits Division and Emissions Banking and Trading Team administers offsets. They track emissions available for purchase or trade and ensures those emissions are creditable.

Public notice: The public notice period(s) provide the opportunity for the public to comment on the draft permit and request a contested case hearing. Public notice requirements for NSR permits are governed by 30 TAC Chapters 39 and 116.