



FACT SHEET: New Source Review (NSR)

What is New Source Review?

New Source Review (NSR) is a Clean Air Act program that requires industrial facilities to install modern pollution control equipment when they are built or when making a change that increases emissions significantly. The program accomplishes this when owners or operators obtain permits limiting air emissions before they begin construction. For that reason, NSR is commonly referred to as the “preconstruction air permitting program.”

The purpose of the NSR program is to protect public health and the environment, even as new industrial facilities are built and existing facilities expand. Specifically, its purpose is to ensure that air quality:

- does not worsen where the air is currently unhealthy to breathe (i.e. nonattainment areas)
- is not significantly degraded where the air is currently clean (i.e. attainment areas)

What are permits?

Permits are enforceable legal documents that an industrial facility, or stationary source, must comply with. Permits may place restrictions on:

- What construction is allowed
- What air emission limits must be met
- How the source can be operated

To assure that sources comply with a permit’s emission limits, a permit almost always contains monitoring, recordkeeping, and reporting requirements.

What pollutants are regulated under the NSR program?

The NSR program applies to regulated NSR pollutants. In the PSD program, the regulated NSR pollutants include the National Ambient Air Quality Standards (NAAQS) pollutants and some other pollutants including sulfuric acid mist, hydrogen sulfide, etc. In nonattainment NSR, the regulated NSR pollutants are only the NAAQS pollutants.

EPA sets NAAQS for six principal pollutants, which are commonly called "criteria" pollutants and include: ozone, carbon monoxide, particulate matter, sulfur dioxide, lead, and nitrogen oxide. The NAAQS are set at levels that protect human health and the environment.

For each criteria pollutant, every area of the United States has been designated as one of the following categories:

- **Attainment:** air quality is equal to or better than the level of the NAAQS; these areas must maintain clean air
- **Unclassifiable:** there are no data on air quality for the area; the area is treated as attainment

- **Nonattainment:** air quality is worse than the level of the NAAQS; these areas must take actions to improve air quality and attain the NAAQS within a certain period of time

What are the types of NSR permitting programs and what do they require?

There are three types of NSR permitting programs, each with a different set of requirements. A facility may have to meet one or more of these sets of permitting requirements.

1. **Prevention of Significant Deterioration (PSD) program** applies to a new major source or a source making a major modification in an attainment area. The program requirements include:
 - Installation of the Best Available Control Technology (BACT)
 - Emission limitation based on the maximum degree of emission reduction (considering energy, environmental, and economic impacts) achievable through application of production processes and available methods, systems, and techniques
 - An Air Quality Analysis
 - Assesses existing air quality and predicts through modeling the ambient concentrations that will result from the proposed project and future growth associated with the project
 - An Additional Impacts Analysis
 - Assesses the impacts of air, ground, and water pollution on soils, vegetation and visibility caused by any increase in emissions of any regulated pollutant from the source or modification under review
 - Public Involvement
 - Opportunities include public comment period, hearings, appeals, etc. during the permit issuance process.
2. **Nonattainment NSR program** applies to a new major source or a source making a major modification in a nonattainment area. The program requirements include:
 - Installation of the Lowest Achievable Emission Rate (LAER)
 - The rate of emissions that reflects: (1) the most stringent emission limitation included in the implementation plan of any state for a similar source unless the facility owner or operator demonstrates such limitations are not achievable; or (2) the most stringent emissions limitation achieved in practice, whichever is more stringent.
 - Emission Offsets
 - To avoid increases in emissions, proposed emissions increases from new or modified facilities are balanced by equivalent or greater reductions from existing sources.
 - Public Involvement
 - Opportunities include public comment period, hearings, appeals, etc. during the permit issuance process.

3. **Minor NSR program** applies to a new minor source and/or a minor modification at both major and minor sources, in both attainment and nonattainment areas. Minor NSR may apply to criteria pollutants as well as other pollutants depending on the state. The program requirements include:
 - New sources or modifications at existing sources must comply with any emissions control measures required by the state.
 - The program must not interfere with attainment or maintenance of the National Ambient Air Quality Standards or the control strategies of a State Implementation Plan (SIP) or Tribal Implementation Plan (TIP).
 - An implementation plan is a set of programs and regulations developed by the appropriate regulatory agency in order to assure that the NAAQS are attained and maintained.

Who issues the permits?

Usually NSR permits are issued by state or local air pollution control agencies. State, tribal and local air pollution control agencies may have developed their own NSR permit programs, as part of their State Implementation Plans (SIP) or Tribal Implementation Plans (TIP), that are approved by EPA or they may be delegated the authority to issue permits on behalf of EPA. If a state or a tribe chooses not to develop a SIP or a TIP and also not seek delegation of the federal NSR programs, EPA would implement the programs and issue the NSR permit, as we do for the PSD program in Indian country.

What sources are regulated under NSR?

The NSR permitting program applies to both: major and minor stationary sources.

1. **Major sources** are facilities that have the potential to emit pollutants in amounts equal to or greater than the corresponding major source threshold levels. These threshold levels vary by pollutant and/or source category. Major sources must comply with specific emission limits; which are generally more stringent in nonattainment areas.
2. **Minor sources** are facilities that have the potential to emit pollutants in amounts less than the corresponding major source thresholds.

Synthetic minor sources are facilities that have the potential to emit pollutants at or above the major source threshold level, but voluntarily accept enforceable limits to keep their emissions below the major source thresholds and avoid the major NSR requirements.

Where can I find additional information about NSR?

EPA's NSR Web site: <http://www.epa.gov/nsr/>

The NSR Web site provides links to regulations, publications and state permitting contacts pertaining to New Source Review