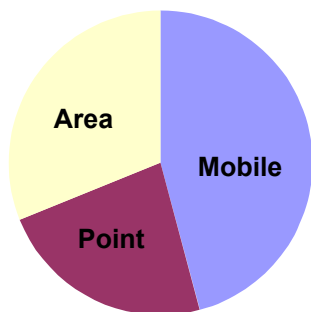




Minnesota
Pollution
Control
Agency

Majors and
Remediation
Division,
Air Quality
Program

Where does
Minnesota's air
pollution come
from?*



NSR does not address the majority of air pollution sources in Minnesota. Most Minnesota air pollution comes from "area" sources, including as gas stations and solvent use; and "mobile" sources, such as vehicles and construction equipment. NSR applies only to certain facilities within the "point" source (large facility) category.

*1999 criteria air emissions

Citizens' Guide to New Source Review Reform

Air Quality/Federal and State Regulations/#4.29/March 2004

What is New Source Review Reform?

New Source Review (NSR) is one of many U. S. Environmental Protection Agency (EPA) regulatory programs that protect air quality¹. NSR regulations may apply when a large facility installs or modifies equipment or changes a process. If these changes increase air emissions significantly, the facility must follow NSR regulations and apply the Best Available Control Technology (BACT) to control emissions.

NSR Reform is the name given to recent EPA revisions of NSR. These reforms affect how a facility determines if it must apply BACT. NSR Reform in Minnesota applies only to the 140 facilities subject to NSR.²

NSR has been working well for new sources; the reforms affect only existing major sources. In addition, NSR Reform does not eliminate Minnesota's existing state permit requirements. If a facility makes a change not subject to NSR under the new rules, it may still require a permit from the MPCA.

¹ Other programs affecting stationary sources include the Acid Rain Program; New Source Performance Standards; and National Emission Standards for Hazardous Air Pollutants. Minnesota's State Implementation Plan (SIP) addresses (past) violations of ambient air quality standards.

² The MPCA also permits more than 2000 other air emission sources not affected by NSR Reform.

What specific changes does Reform make to the NSR program?

NSR Reform allows an existing facility to either follow rules under the "old" NSR program or use the new rules. Additional NSR changes will likely be proposed by EPA in the future.

Key areas where new options are available:

- **Determining whether a modification is big enough to trigger NSR**

1. Choose old NSR method: Compare maximum possible (future) annual emissions to the emissions level in the immediate past.
2. Or choose new NSR Reform method³: Compare a projection of future emissions to actual emissions during a recent period. The projection is based on the company's business plans, but the projection should not require the change to be made. Although fewer changes will exceed the NSR permit threshold, the amount of pollution control equipment will not necessarily change.

This is expected to be the most commonly used new provision. Facilities choosing the new option are subject to additional recordkeeping requirements to document the accuracy of their projections.

³ Power plants have been allowed to use this method since court rulings and subsequent changes to NSR in the early 1990's.



▪ **Clean Unit Designation**

Facilities can now obtain a “clean unit designation” through a permit from the Minnesota Pollution Control Agency (MPCA). This designation is for emission units deemed to have the best available control technology. Clean unit status allows some changes to an emission unit without undergoing another NSR analysis. The clean unit designation is reviewed every ten years to ensure that the control technology is still the best available control technology.

▪ **Pollution Control Project Exclusion**

This new provision exempts pollution control projects from NSR if they meet certain criteria. (An MPCA permit still may be required, however.) If this provision is used, the facility does not get credit for these emissions reductions in future NSR permit applications.

▪ **Plantwide Applicability Limits (PAL)**

Facilities can request a cap on actual emissions, then trade increases and decreases under the cap. (Without a PAL, NSR allows a facility to continue to make changes that increase emissions over time as long as certain conditions are not triggered.) Development of a PAL requires considerable time and resource commitment on the part of the facility.

▪ **Replacement Exclusion**

In December of 2003, courts stayed implementation of this provision. This provision allows replacement of components of existing process equipment with similar components costing up to 20 percent of the current replacement value of the process unit without requiring NSR permits. Basic design parameters of the equipment cannot be changed, and emissions limits in operating permits cannot be exceeded.

What is the status of NSR Reform in Minnesota?

NSR Reform became effective in Minnesota, Michigan, South Dakota, and eight other states March 3, 2003, 60 days after EPA published final rule changes in the Federal Register. In other states, individual state rules must be changed first for NSR Reform to become effective.

Why do some states oppose NSR Reform?

In states that violate national air quality standards (Minnesota does not violate standards); the need for an NSR permit is triggered by smaller plant changes than in

states that meet the standards, thus including more facilities. Some states are also concerned about pending NSR enforcement cases for past violations.

How will NSR Reform affect air emissions in Minnesota?

Based on past experience, it is not likely that the new NSR provisions will have a significant impact on emissions in Minnesota. EPA believes these changes will encourage emissions reductions. However, it is difficult to predict how much emissions will change for a number of reasons:

- Future plant changes at Minnesota’s 140 facilities are unknown
- Facilities’ use of NSR Reform provisions is optional (however, the MPCA is tracking use of these provisions at facilities)
- Other regulatory programs also affect emissions from these facilities (see footnote 1 on page 1)

How many facilities apply for NSR permits?

Over the past ten years, the MPCA has issued fewer than 50 NSR permits total (both new and existing facilities). In other words, only a handful of facilities each year have undergone the permitting analysis that requires a facility to install the BACT. When making changes, most of the 140 facilities have chosen to take limits in their permits that keep total emissions below the threshold that triggers NSR analysis.

In addition, March through December of 2003, five facilities submitted permit applications that deal with some aspect of NSR Reform.

What other steps is the MPCA taking to ensure that Minnesota’s air quality is protected?

The MPCA’s compliance and enforcement strategy focuses on examining actual emissions from these facilities and tracking the types of process changes made at a facility. This information will help the MPCA decide when a closer look at a facility is necessary. The information will also help determine whether NSR Reform reduces emissions.



The MPCA continues to evaluate the actual quality of the ambient air through more than 140 air monitors at 56 sites throughout the state. The MPCA currently inspects more than 250 facilities a year, with NSR facilities the most frequently inspected. The MPCA also continues to pursue reduction of emissions through supporting Xcel Energy's voluntary conversion of its older metropolitan-area coal plants to natural gas, and partnering with Clean Air Minnesota initiatives to reduce ozone precursors (Clean Air Minnesota Web site: <http://www.mn-ei.org/air/index.html>)

The MPCA's air quality strategies are summarized in the 2003 Air Quality Legislative Report: *Into the Future*. Available online at:
<http://www.pca.state.mn.us/publications/reports/lr-airqualityreport-2003.html>

Where can businesses learn more about NSR Reform and how to use the new provisions?

Information and tools are available online to help facilities who choose to use the new provisions. Forms, fact sheets, and policy guidance can be found on the MPCA's Web site:
<http://www.pca.state.mn.us/air/permits/nsr/index.html>

What about grandfathered coal-fired power plants? Will NSR Reform allow these older, dirtier plants to keep operating even longer?

NSR has been in place since 1977. It has not been effective in cleaning up old coal-fired plants. The MPCA position is that these grandfathered plants must be cleaned up, but that NSR is unlikely to be the most effective tool. Power plants on a national basis have significantly reduced emissions of key pollutants due to other Clean Air Act programs, such as the Acid Rain program. More stringent national outdoor air quality standards for fine particles and ozone promulgated in the late 1990s will likely bring about further reductions on a national basis.

Here in Minnesota, in late 2003, the Minnesota Public Utilities Commission approved Xcel Energy's plan to reduce emissions from three metro-area coal-burning power plants. Called the Metropolitan Emission Reduction Proposal (MERP), the plan calls for re-powering the Riverside and High Bridge plants to natural gas, and updating the Allen S. King plant by adding new pollution-control equipment. The entire project is scheduled for completion by 2010.

The MERP project will reduce total sulfur dioxide emissions from these three plants by 93 percent, nitrogen oxide emissions by 91 percent, direct particle emissions by 64 percent, mercury emissions by 76 percent, and carbon dioxide emissions by 21 percent.