

Reform Examples - EPA's 2002 New Source Review Improvements

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Plantwide Applicability Limits (PALs):

Using a PAL type permit, a computer chip manufacturing facility used pollution prevention techniques to lower its smog forming volatile organic compound (VOC) emissions by 70% from 190 tons/year to 56 tons/year, while at the same time increasing production significantly. The PAL permit provided flexibility to allow quick and timely process and equipment changes that enabled the facility to significantly reduce VOC emissions without triggering costly and time-intensive permitting actions. New generations of computer chips are introduced every 12 to 24 months, and this company typically needed to make 150 to 200 equipment and operational changes per year. In the absence of the PAL type permit, the company would need to examine each change individually to determine whether it triggered NSR.

Clean Unit Test:

A company that manufactures chemical and specialty products for home care, personal care, home storage and insect control operates a plant in an ozone non-attainment area. All of the plant's aerosol product-filling and packaging operations underwent non-attainment NSR in the early to mid-1990s. The NSR permitting process required the installation of very stringent emission controls. Under the current NSR program, many routine projects designed to maintain or improve operating efficiencies, improve safety, and reduce operating costs at this facility could trigger NSR, even though very stringent controls are in place, emissions would remain well within permit limits, and the offsets previously secured were based on maximum permitted capacity. In many cases, projects designed to improve operating efficiency would also result in decreased line scrap and waste generation, providing a pollution prevention benefit.

Calculation of Emissions:

A refinery wanted to install a heat exchanger that would recover waste heat from one of its gasoline-producing units. As a result other heaters and boilers would need to be used less, reducing energy usage and emissions. However, because of how NSR currently measures future emissions (i.e., assumes future operation is at full capacity, although present operation is not) the project showed a "potential" emissions increase that could trigger NSR. The facility determined that NSR would make the project uneconomical, and it would not go forward.

Pollution Control Project:

A facility that is equipped with boilers that currently burn fuel oil wanted to change its boilers so they could burn natural gas, which would reduce emissions of SO₂ and NO_x. It may also result in a fuel cost savings. Although emissions of SO₂ and NO_x would decrease significantly, the facility projected emissions of VOCs and CO to increase slightly. These increases could trigger NSR, and the facility is likely to conclude that the project is no longer viable and continue to burn oil. This change would no longer be subject to NSR because the exclusion for pollution prevention and control projects includes fuel switching.

Routine Maintenance, Repair and Replacement:

For example, a manufacturer operates a process that includes a drying system. It determined that the energy efficiency of the system could be improved if the existing drier nozzles were replaced with Teflon-coated nozzles. Because it could not readily determine whether installation of the new nozzles would be considered routine maintenance, repair or replacement, the company decided not to proceed with the project. NSR excludes repairs and maintenance activities that are "routine," but a complex analysis must currently be used to determine what repairs meet that standard. This has deterred companies from conducting needed repairs, often times resulting in unnecessary emissions of pollution. The proposed changes would provide more certainty for activities that qualify for the routine maintenance, repair and replacement exclusion.