

Environmental News

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EPA ANNOUNCES IMPROVEMENTS TO NEW SOURCE REVIEW PROGRAM

Action Will Promote Pollution Prevention, Plant Modernization and Energy Efficiency By Eliminating Perverse Regulatory Barriers

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In a move to increase energy efficiency and encourage emissions reductions, the U.S. Environmental Protection Agency (EPA) announced today that it has finalized a rule to improve the New Source Review (NSR) program. EPA also announced a proposed rule to provide a regulatory definition of “routine maintenance, repair and replacement.” These actions will offer facilities greater flexibility to improve and modernize their operations in ways that will reduce energy use and air pollution, provide incentives to install state-of-the-art pollution controls and more accurately calculate actual emissions of air pollution. These improvements will also remove perverse and unintended regulatory barriers to investments in energy efficiency and pollution control projects, while preserving the environmental benefits of the NSR program.

“EPA is taking actions now to improve NSR and thereby encourage emissions reductions,” said EPA Administrator Christie Whitman. “NSR is a valuable program in many respects but the need for reform is clear and has broad-based support. The steps we are taking today recognize that some aspects of the NSR program have deterred companies from implementing projects that would increase energy efficiency and decrease air pollution.”

After a comprehensive review of the program, EPA issued a Report to the President on NSR in June 2002. This report concluded that the program as currently administered has impeded or resulted in the cancellation of projects that would maintain or improve the reliability, efficiency or safety of existing power plants and refineries. EPA also concluded that, at existing industrial facilities outside the energy sector, NSR discourages projects that improve capacity or efficiency and do not increase emissions. Instead of being a tool to help improve air quality, the report indicated that NSR has stood in the way of making numerous environmental improvements at many facilities across the nation. Based on these findings, EPA recommended a series of improvements to help address these problems. The final and proposed rules implement these recommendations.

The final rule improvements are the culmination of a 10-year process. During this period, EPA implemented pilot studies and engaged state and local governments, environmental groups, private sector representatives, academia and concerned citizens in an open and far-reaching public rulemaking process. Last summer the nation’s governors and environmental commissioners, on a bipartisan basis, called for NSR reform.

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The final rule implements the following major improvements to the NSR program:

Plantwide Applicability Limits (PALs): To provide facilities with greater flexibility to modernize their operations without increasing air pollution, facilities that agree to operate within strict site-wide emissions caps called PALs will be given flexibility to modify their operations without undergoing NSR, so long as the modifications do not cause emissions to violate their plantwide cap.

Pollution Control and Prevention Projects: To maximize investments in pollution prevention, companies that undertake certain specified environmentally beneficial activities will be free to do so upon submission to their permitting authority of a notice, rather than having to wait for adjudication of a permit application. EPA is also creating a simplified process for approving other environmentally beneficial projects. Current elements of the NSR program can actually hinder pollution prevention projects.

Clean Unit Provision: To encourage the installation of state-of-the-art air pollution controls, EPA will give plants that attain “clean unit” status flexibility in the future if they continue to operate within permitted limits. This flexibility is an incentive for plants to voluntarily install the best available pollution controls. Clean units must have an NSR permit or other regulatory limit that requires the use of the best air pollution control technologies

Emissions Calculation Test Methodology: To provide facilities with a more accurate procedure for evaluating the effect of a project on future emissions, the final regulations improve how a facility calculates whether a particular change will result in a significant emissions increase and thereby trigger NSR permitting requirements. Also, to more accurately represent a facility’s actual emissions before a change, to account for variations in business cycles, and to provide a bright-line test for measuring pre-change emissions levels, industrial facilities will be allowed to use any consecutive 24-month period in the previous decade as a baseline, as long as all current emission limitations are taken into account. (This “baseline emissions” provision does not apply to power plants.)

Proposed Rule

The proposed rule would make improvements to the “routine maintenance, repair and replacement” exclusion currently contained in EPA’s regulations. These proposed improvements will be subject to a full and open public rulemaking process. Since 1980 EPA regulations have excluded from NSR review all repairs and maintenance activities that are “routine,” but a complex analysis must be used to determine what activities meet that standard. This has deterred companies from conducting repairs and replacements that are necessary for the safe, efficient and reliable operation of facilities, resulting in unnecessary emissions of pollution and less efficient, safe and reliable plant processes.

Routine Maintenance, Repair and Replacement: To increase environmental protection and promote the implementation of necessary maintenance, repair and replacement projects, EPA proposes to revise the existing routine maintenance, repair and replacement exemption contained in EPA’s regulations to make clear that two categories of activities automatically constitute routine maintenance, repair and replacement. The proposal sets out a range of options for particular features of each approach, and seeks public comment on these options:

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Annual Maintenance, Repair and Replacement Allowance: would provide a facility-wide annual allowance for maintenance activities. Activities undertaken to promote the safe, reliable and

efficient operation of a plant, whose costs fall within the allowance, would constitute routine maintenance, repair and replacement. The allowance would be set on an industry-specific basis so as to cover the capital and non-capital costs that an owner or operator of a stationary source in a particular industry would typically incur in maintaining, replacing and repairing equipment at the source in order to promote the safe, reliable and efficient operation of the source.

Equipment Replacement Approach: would provide that most projects involving the replacements of existing equipment with functionally equivalent new equipment would constitute routine maintenance, repair and replacement. That would be determined by comparing the cost of the components being replaced with the cost of replacing a production unit at the plant. If the cost of the replaced components is below a specified threshold, then the replacements would qualify as routine maintenance, repair and replacement. The threshold would be set so as to allow replacement of components that are typically replaced at sources in the relevant industrial category in order to promote the safe, efficient and reliable operation of such sources, but not to include major renovations or rehabilitations.

The Federal Register notice on the final and proposed rules will be published in the near future. Additional information and copies of both the final rule and the proposed rule are available on the Web at: www.epa.gov/nsr/ .

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MYTHS AND FACTS ABOUT NEW SOURCE REVIEW REFORM

The New Source Review (NSR) program covers (1) the construction of new major emitting industrial facilities and (2) existing facilities that make major modifications that significantly increase pollution emissions. The program requires that new plants and major modifications of existing plants obtain a permit before construction, which will be issued only if the new plant or major modification includes pollution control measures that reflect best technology available.

Responding to a longstanding, bipartisan call for reform, EPA is making a number of regulatory improvements in the way the program works for existing facilities. These improvements will not change the NSR program as it applies to new facilities and will not change which facilities are subject to the NSR rules.

EPA is promulgating one set of final rules and is issuing one set of proposed rules. The final rules already have been through the full notice-and-comment rulemaking process. In 1996, EPA proposed several changes to the NSR program, and accepted extensive public comments on this proposal, several elements of which are now being finalized. These improvements will:

- 1) Remove needless regulatory barriers to pollution control and prevention projects;
- 2) Encourage modernization of plants and provide operating flexibility by establishing stringent pollution caps known as “Plantwide Applicability Limits” (PALs);
- 3) Create incentives for facilities to install state-of-the-art pollution controls by providing operational flexibility for facilities that install “clean units,” and
- 4) Calculate actual emissions increases and establish actual emissions baselines.

In addition, EPA is seeking public comment on a proposed rule concerning the definition of “routine maintenance, repair, and replacement” under the NSR program. The proposed rules would amend that exemption, which is currently contained in EPA’s regulations, to make clear that two categories of activities constitute routine maintenance, repair and replacement.

EPA proposes to establish an annual routine maintenance, repair and replacement allowance, so that activities undertaken to promote the safe, reliable and efficient operation of a plant whose costs fall within the allowance would automatically constitute routine maintenance. EPA also proposes to establish an equipment replacement approach, whereby most replacements of existing equipment with functionally equivalent new equipment to allow plants to run more safely, efficiently and reliably – for example,

a utility's replacement of turbine rotor shafts or turbine blades with upgraded shafts or blades - would constitute routine maintenance, repair and replacement. EPA is asking for public comment on these proposals and will not take final action on them until after the public has had an opportunity to comment on the proposed rules and the agency has considered those comments.

(1) MYTH: EPA is finalizing changes to the NSR program without analyzing the impact of those changes on public health and the environment.

FACT: EPA has evaluated the impact of the changes to the NSR program and found that these improvements will reduce overall emissions by (1) eliminating unintentional regulatory barriers that stand in the way of environmentally beneficial projects at existing plants, (2) removing counterproductive incentives that encourage facilities to maintain their emissions as high as legally allowed, and (3) establishing regulatory incentives for sources to decrease emissions. The final rules are based on an enormous amount of public comment that EPA has gathered and evaluated over the last 10 years, and on EPA's own legal, technical and policy review. In addition to reducing emissions, the changes will provide regulatory certainty, administrative flexibility and permit streamlining.

(2) MYTH: EPA is making major changes to the NSR program without providing an opportunity for full public notice and comment.

FACT: The matters addressed in the final rule have already been through the full notice-and-comment process and have been the subject of extensive public hearings and comment. There has been a broad, bipartisan consensus for many years that the NSR program needs improvement. The nation's governors, state environmental commissioners, environmental groups, industry, academia and other groups have acknowledged problems with the current NSR program. The Pew Center's recent "Climate-Friendly Energy Policy" report cited NSR reform as an element of a climate-friendly energy policy because of its ability to reduce greenhouse gas emissions by encouraging improved energy efficiency. The Democratic Leadership Council's think tank, the Progressive Policy Institute, has also called for NSR reform, recognizing that the existing regulations are inefficient and counterproductive.

The final rule changes to NSR are the result of a 10-year multi-stakeholder process that has included numerous opportunities for interested parties and individuals to provide input. State regulators, environmental groups, industry and the public commented extensively on the provisions in the final rule – which were proposed in 1996 – and we have considered these comments fully in developing the final rule.

The routine maintenance proposal will be subject to a full public comment process.

(3) MYTH: EPA is making major changes to the NSR program that will undercut the NSR enforcement cases it brought against utilities.

FACT: Governor Whitman has stated numerous times that she strongly supports enforcement of the law and is moving forward with these cases. None of the changes,

either in the final rule or the proposed rule, will apply to the existing enforcement cases. The final rule will apply only prospectively. EPA will not make any final decisions with respect to the proposed rule until after the completion of public notice and comment, and in any event, EPA is proposing to apply the proposed rule only prospectively as well.

(4) MYTH: EPA is making regulatory changes that effectively rewrite the Clean Air Act.

FACT: The changes that we are making to the NSR rules do not change the Clean Air Act at all. All the changes are fully authorized under and are consistent with the Act.

(5) MYTH: Because EPA estimated in 1996 that, with these improvements, 50% fewer sources would go through NSR, the improvements will have an adverse impact on air quality.

FACT: The number of times sources have to go through the permitting process is not a good measure of NSR benefits. EPA's analysis of the NSR reforms is that they will benefit the environment by reducing emissions and improving energy efficiency.

Even though a source may make a change without obtaining a new NSR permit, it does not mean that source is not covered by NSR or that NSR is reducing air emissions from the source. For example, a source that takes an emissions cap known as a Plantwide Applicability Limit (PAL) may avoid some future NSR permitting, but only in exchange for an agreement to cap its overall emissions under the NSR program. By so doing, it would reduce its emissions and also reduce the frequency of its NSR permit reviews.

Conversely, requiring an NSR permit for some types of projects (e.g., those at clean units) can result in no or only trivial environmental benefits. The NSR rule being finalized today is designed to streamline review in such cases. Likewise, requiring an NSR permit for some environmentally beneficial projects may deter some projects from going forward. In such instances, no permit is now recorded, but real environmental benefits are lost. Our rules are designed to remove NSR barriers and promote these beneficial projects.

(6) MYTH: Because some of the final rule changes allow facilities to freeze their emission levels for 10 years, EPA's changes to the NSR program will not lead to air quality improvements.

FACT: This claim is simply untrue. As noted above, EPA's review shows that the changes made by the final rule will provide a net benefit to air quality by removing current NSR barriers to environmentally beneficial projects and by removing incentives in the current NSR rules to keep pollution at high levels.

It is important to understand that the NSR program was never designed to require facilities to reduce existing levels of pollution – that is not its purpose. NSR review is designed to be triggered when a new facility is being built or when one is undergoing a major modification that could significantly increase emissions. NSR is a permitting process to review and control emissions increases, not a tool to require reductions. The

best way to require reductions in emissions is through legislative action such as the President's Clear Skies proposal.

In practice, sources' emissions fluctuate as part of the business cycle, as well as for other reasons. The current rule often results in lengthy discussions over what time period is truly representative of normal operations. EPA's rule would resolve this by allowing industrial sources to select any two-year period in the last 10 years – consistent with the business cycle. However, importantly, the baseline would have to be adjusted to reflect all current emissions limits. This allows a facility to operate at maximum capacity during peak periods of the business cycle, while still maintaining strict air quality controls.

(7) MYTH: EPA's changes to the NSR program will allow new sources to be built without installing pollution controls.

FACT: EPA's changes to the NSR program would not affect new sources at all, and new sources account for a large majority of NSR permits issued every year. Neither the final rule nor the proposed rule being announced by EPA would change NSR requirements for new sources.

(8) MYTH: EPA's changes to the NSR program will pre-empt state programs.

FACT: The changes do not pre-empt any state program more stringent than the federal program. Rather, under the Clean Air Act, states are specifically authorized to establish their own programs that may be more stringent than federal law. This continues to be the case.

EPA believes that the changes will significantly improve the NSR program. Thus, EPA will include the changes in the base NSR program as has been EPA's consistent practice and will encourage states to adopt these changes in their own programs.

(9) MYTH: The final rule has not been subject to enough public comment and is a complete departure from the Clinton Administration's 1996 proposal.

FACT: These proposals have been subject to an extraordinary amount of public input. The history of the final rule goes back to 1992 when EPA formed a federal advisory committee to determine how NSR could be improved. The committee included representatives from environmental groups, state and local governments, federal agencies and industry. The work of this committee ultimately led to the publication of two Federal Register notices (in 1996 and in 1998), each followed by an opportunity for public comment. EPA also held two public hearings and hosted more than 50 stakeholder meetings. Over 600 detailed comments have been submitted during the decade EPA has spent working on these rule improvements.

These final rules address the same issues as those originally proposed in 1996. EPA has made improvements based on the public comments and analysis, and, as is required by law, these changes are consistent with the scope of the 1996 proposal.

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NEW SOURCE REVIEW PROGRAM: Changes that will benefit the environment

On average it can take 8 months to obtain an NSR permit. This average does not include the amount of time it takes for a company to prepare and submit its permit application. The delays and costs associated with NSR can discourage companies from making changes that are environmentally beneficial and improve energy efficiency. The major reforms to NSR finalized today include plantwide applicability limits (PALs), a pollution control and prevention project exclusion, the clean unit test, and improvements to the emissions calculation test methodology and baseline. These changes will remove obstacles for environmentally beneficial projects, clarify NSR requirements and provide incentives for energy efficiency improvements.

Plantwide Applicability Limits (PALs)

A PAL is a plantwide cap on emissions for a particular pollutant that covers all operations occurring at the facility. PALs are environmentally beneficial and ensure that air pollution does not increase above the fixed cap. Under the existing NSR program, facilities can increase air pollution up to 39 tons per change and allow emissions to creep up over time without ever triggering NSR review. This cannot happen under a PAL. A PAL allows company owners to make changes to their facilities without obtaining a major NSR permit, provided their emissions do not exceed the plantwide cap. Examples of the types of changes companies could make quickly using PALs include: (1) produce new computer chips in response to rapidly changing technology and market demand; (2) develop and manufacture new drugs needed to save human lives; or (3) change painting operations quickly for new car model years. PALs would be especially attractive to these types of companies who wish to make changes at their facilities quickly and with greater certainty. The PAL option would move away from the permitting authority's case-by-case management of the company's day-to-day operations and require that only changes that significantly increase the plant's overall emissions above its fixed PAL limit would go through NSR. This option would provide greater certainty and flexibility for changes undertaken throughout an entire facility without sacrificing the environmental benefit provided or meaningful public participation.

The three following examples represent plants that piloted the use of PAL type permits and the environmental benefits achieved at their facilities.

Example 1

\$ New generations of computer chips are introduced every 12 to 24 months, and a computer chip manufacturing facility typically needed to make 150 to 200 equipment and operational changes per year. The traditional NSR permitting program would trigger

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costly and time-intensive permitting actions and did not provide for sufficient flexibility to allow quick and timely process and equipment changes at the facility.

- \$ Using a PAL type permit enabled the facility to significantly reduce air pollution by using pollution prevention techniques to lower its smog-forming volatile organic compound (VOC) emissions by 70% from 190 tons/year to 56 tons/year, while increasing production significantly.
- \$ In the absence of the PAL type permit, the company would need to examine each change individually to determine whether it triggered NSR and experience the delays typically associated with getting an NSR permit. **Intel Corporation - Contact: Michael Salzgeber, 503-264-5667**

Example 2

Under a PAL type permit, an automobile manufacturing plant that assembles sport utility vehicles made over 90 changes under the permit that improved operating efficiency and reduced VOCs and hazardous air pollutants using pollution prevention activities.

The company reduced its VOC emissions from 1165 tons per year in 1994 to 776 tons per year in 2000. **Daimler Chrysler – Contact: Kathy Graham, 248-512-2942**

Example 3

- An office products manufacturing plant produces over 2000 different tape and label products. They produce new products that may become obsolete within 6-9 months. Using a PAL type permit provided the company with greater certainty and flexibility to meet market demands and improve production processes.
 - \$ During the permit term, the company made 34 equipment and operational changes. The company estimated that in the absence of the PAL type permit, 15 to 20 of the changes could have required case-by-case permitting actions.
 - \$ Under the PAL, the plant lowered smog-forming air emissions from 4,300 tons/year to 1000 tons/year. **3M Corporation – Contact: Jeffrey Muffat, 651-778-4450 or John Metzger, 651-778-4805**
 - \$

Pollution Control and Prevention Project Exclusion

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The pollution control and prevention project (PCP) exclusion removes regulatory disincentives for companies that wish to implement environmentally beneficial technologies. EPA is providing a list of environmentally beneficial technologies that are presumptively eligible to qualify as PCPs. Additionally, PCPs that are not listed may also qualify for the exclusion, provided certain safeguards are met. This approach offers flexibility, provides environmental safeguards and removes disincentives for improving air quality.

Commenters submitted the following examples of projects that were not undertaken because of NSR and resulted in the loss of environmental and energy efficiency benefits. The Pollution Control Project Exclusion would allow these types of projects to move forward.

Example 1

- \$ A facility is equipped with boilers that currently burn fuel oil and sought to change its boilers to burn natural gas, which would reduce emissions of SO₂ and NO_x. It would also be likely to provide fuel cost savings.
- \$ Although emissions of SO₂ and NO_x would decrease significantly, the facility projected emissions of VOC and CO to increase slightly. These increases could trigger NSR, and, if so, the facility is likely to conclude that the project is no longer viable and will continue to burn oil.
- \$ This change would no longer be subject to NSR under NSR Improvement, because the exclusion for pollution prevention and control projects includes environmentally beneficial fuel switching. **Submitted by the Alliance of Automobile Manufacturers, Contact: Greg Dana, 202-326-5518**

Example 2

- \$ A paper mill wanted to install a technology that would improve efficiency and result in a 30% reduction in natural gas usage, a reduction in NO_x emissions and a decrease in ash to be landfilled.
- \$ Under the current NSR program, the mill must calculate emissions after the change assuming maximum potential emissions (i.e., full utilization of the boiler 24 hours each day, 365 days a year)
- \$ The boiler was operating below its maximum capacity. Because the company must assume maximum potential emissions after the change to determine if NSR

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applied, it showed a potential emissions increase from the project, even though, in actuality, an emissions decrease is likely to result.

- \$ The cost of the project is estimated to be \$750,000. The cost of the pollution controls are estimated to be \$10 million. Because the source predicted that NSR would result in expensive pollution controls that outweigh the benefits of the project, the improvement did not go forward. **Submitted by the American Forest and Paper Association, Contact: Barry Polsky, 202-463-2467**

Clean Unit Test

This test would provide an incentive for facility owners to install the best emission controls on new or modified emission units. A unit that is determined to be clean and have very good controls would only trigger NSR if its emissions exceed the limit for which the unit already has a permit (i.e., its permitted allowable limit that reflects very good controls). The Clean Unit Test would provide flexibility and certainty so that most future changes at such units would not trigger NSR without sacrificing the environmental benefit provided by the current program or meaningful public participation.

During the review, the following example was submitted to demonstrate how NSR can be triggered for a plant that is already well-controlled. The Clean Unit Test would allow these types of projects to move forward without triggering NSR and provide for greater administrative efficiency and certainty for companies without sacrificing environmental protection.

Example

- \$ A company that manufactures chemical and specialty products for home care, personal care, air 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-1990's. The NSR permitting process required the installation of very stringent emission controls. In addition, the facility was required to provide between 1 and 1.3 tons of emission offsets for every ton of potential annual emissions increase based on maximum permitted production capacity.
- \$ Under the current NSR program, projects designed to maintain or improve operating efficiencies, improve safety, and reduce operating costs at this facility

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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.

- § The costs of going through the re-permitting process could range anywhere from \$15,000 to \$20,000 for the application. The delays required to process the applications and issue permits would also result in competitive disadvantages and potential job losses. The multiple applications required to authorize these routine projects would also overwhelm agency air permitting resources. **Submitted by SC Johnson, Contact: Cynthia Georgeson, 262-260-4728**

Actual to Projected Future Actual Methodology for Calculation of Emissions Increases

Currently, the methodology to determine NSR applicability is commonly referred to as the “actual-to-potential” test. Under this test real or actual emissions prior to the change are compared to maximum potential emissions after the change. Maximum potential emissions means that it is assumed that the facility operates 24 hours each day, 365 days a year. This maximum potential is unrealistic for many companies as very few, if any operate continuously, around the clock. Stakeholders expressed concern that the “actual-to-potential” methodology subjects most changes to NSR, even where there is no increase in real emissions. If a source projects that it will not increase emissions because it will never actually operate at such high levels, it may request a limit in an air quality permit that restricts its operations to be consistent with this projection. However, establishing the limit can introduce delays, and once the limit is set, the facility can not increase production back up to previously allowed levels without usually under taking additional permitting actions. This discourages many environmentally beneficial and efficiency changes.

EPA’s revisions to the emissions calculation test methodology under the NSR program will make the comparison of emissions before and after the change more fair by comparing actual emissions before the change to projected actual emissions after the change. Additionally, only those projected emission increases actually caused by the change will be used to determine NSR applicability. Under this approach, only changes that result in real increases in pollution will trigger NSR review.

Commenters submitted the following examples of projects that were not undertaken because of NSR and resulted in the loss of environmental and energy efficiency benefits. EPA’s revisions to the emissions calculation test methodology under the NSR program to

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focus on increases in actual (rather than maximum potential emissions) will enable the following projects to go forward:

- \$ 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 be used less, reducing energy usage and actual emissions.
- \$ Because of how NSR currently measures future emissions (i.e., compares actual emissions to maximum potential emissions) the project shows a potential, but not real air pollution increase that could trigger NSR.
- \$ The refinery determined that NSR would make the project uneconomical, and it did not go forward. **Submitted by BP America, Contact: Bob Hermanson, 630-434-5721**

Example 2

- \$ A boiler at a paper mill currently burns coal, but the operator would like to change it so that it could alternatively burn natural gas. Because natural gas emits much less SO₂ pollution, real emissions are projected to go down.
- \$ However because the NSR program assumes maximum potential emissions using worst case assumptions (i.e., coal) after the change, the project is shown to increase SO₂ emissions.
- \$ The facility determined that it could not give up its option to use coal, could not restrict operations to current levels, and could not afford the estimated cost of NSR controls. The paper mill abandoned the project and continued to burn coal and emit higher SO₂. **Submitted by American Forest and Paper Association, Contact: Barry Polsky, 202-463-2467**

Example 3

- \$ A packaging manufacturer wanted to replace an oven with a more flexible and energy-efficient oven, which would save on electricity and fuel costs and reduce emissions of VOC and NO_x. The capacity of the new oven was the same as the old, but the source had not recently operated near its capacity.

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- \$ Even though the actual emissions are likely to decrease, because of the way NSR calculates emissions increases, the oven is assumed to operate at full capacity in the future, and the resulting calculation shows an increase in emissions.
- \$ The company abandoned the project when it determined that NSR could apply. The expected energy savings and emissions reductions were not realized.
Submitted by the Flexible Packaging Association, Contact: Ram Singhal, 401-694-0823

Actual Emissions Baseline for Calculation of Emissions Increases for Sources other than Electric Utilities

Under existing NSR regulations, for companies other than electric utilities, the baseline of emissions to determine NSR applicability is established using the average emissions from the two year period immediately before the proposed project. However, if these two years do not represent normal operations, the company may request that a more representative period be used.

The changes to the actual emissions baseline will allow companies (other than electric utilities) to establish their emissions baseline to determine NSR applicability using the highest consecutive 24 month period within the immediately preceding ten years. This would enable companies to select the period of greatest utilization. Companies must also take into account current emissions factors (which would reflect emissions limitations, other required emissions reductions, and permanent shutdowns since the baseline period) in combination with the utilization level from the 24-month time period selected. The use of current day emission limitations would reflect the current level of controls in place at the source.

The following hypothetical provides an example of the types of situations this baseline change is intended to address.

Example

- \$ During the mid-1990s a company that manufactures household appliances operated at 80% of its operating capacity. Thereafter, due to market conditions and a slow down in the economy, the company's production of appliances decreased to 60% of its operating capacity. As a result, the company temporarily shut down one of its production lines for several years.

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- \$ Thereafter, market conditions improved and the company now wishes to restart the shut-down production line and make some changes to enhance operating efficiency.
- \$ Under the existing way NSR establishes baseline emissions, the company's restarting the production line and the accompanying changes would likely trigger NSR, even though the company had historically produced appliances using as much as 80% of its operational capacity. That is because the current rules would not let the company use a different period other than the two most recent years to determine baseline emissions, unless the company could demonstrate that some other time period of operations is more representative of normal source operations.
- \$ Under existing EPA guidance it would be very difficult for the company to make this demonstration unless the company could show that the decrease in operating the plant was due to a strike or some other catastrophic event, not simply a decline in market conditions. In many instances this can result in the confiscation of operational capacity that the company may have used in the past.
- \$ The change in how to calculate the actual emissions baseline will provide more certainty for companies to better account for variations in business cycles and avoid the red tape and delays associated with getting a case-by-case determination of when another more representative period could be used.

Actual Emissions Baseline for Calculation of Emissions Increases for Electric Utilities

Under the existing NSR regulations, the emissions baseline for electric utilities is established in a slightly different way. The utility may look at any consecutive two years in the preceding five years before the change (rather than the two years immediately preceding the change). EPA is not changing the actual emissions baseline for calculation of emissions increases for electric utilities.



Supplemental Environmental Analysis of EPA's New Source Review (NSR) Improvements Final Rule

Summary of EPA's Analysis of the Anticipated Environmental Effects Associated with its New Source Review Improvement Final Rule

- \$ The overall effect of the final rule will be a net benefit to the environment.
- \$ Four of the five provisions in the final rule will result in environmental benefits, and the other provision has no significant effect.
- \$ As a result, the much-needed improvements to NSR, and the economic benefits that result, will be achieved in harmony with – not contrary to – EPA's goal of continuing progress toward cleaner air.

About the Analysis

- \$ The analysis uses quantitative information where possible, but also notes limitations on EPA's ability to quantify impacts of the rule. EPA used qualitative information to supplement the analysis where such limitations are present.
- \$ EPA conducted the analysis to examine the air pollution benefits associated with the final rule. It was not used as the basis for the rule. The complete justification for the rule is outlined in the rule's preamble and other supporting information.

Specifics About the Findings of the Analysis

- \$ The analysis shows that, compared to the current NSR rules, the NSR Improvement rule will result in reductions in emissions of air pollution. These reductions will be relatively small compared to other Clean Air Act programs and to the NSR program as a whole.
- \$ Because the NSR Improvement rule does not significantly alter the rules for coal fired power plants, and does not affect the NSR provisions for new sources and new units, its overall impact is relatively small.
- \$ The rule also results in economic benefits that stem from improved flexibility, increased certainty, and reduced administrative burden. These benefits are important, but were not quantified as part of this environmental analysis.
- \$ The reductions will primarily reduce levels of common pollutants like those that cause ground-level ozone, or smog. These reductions will result in health and welfare benefits such as lower incidences of premature mortality, asthma, and other respiratory diseases and damage. Smaller reductions in hazardous air pollutants, ozone-depleting substances, and other pollutants will also occur.
- \$ Specifically, for each of the rule's five provisions, the analysis concludes the following:

\$ **Plantwide Applicability Limits (PALs)** will result in tens of thousands of tons per year of Volatile Organic Compounds (VOC) reductions from just three industrial categories where PALs are likely to be used heavily.

\$ Overall reductions will be greater because it is likely that PALs will be adopted for more source categories and pollutants than those analyzed.

\$ The **Clean Unit Test** will be environmentally neutral for most sources, but some sources will likely control earlier or more extensively than under current rules, and, as a result, a net benefit will occur.

\$ The amount of this benefit is uncertain nationally, but will likely be significant in individual cases, like the estimated 9,300 ton/year reduction in smog-causing volatile organic compounds seen in one example.

\$ The **Pollution Control Project Exclusion** will lead to a small increase in the number of environmentally beneficial projects because it removes NSR barriers to such projects. The amount of this benefit is uncertain nationally, but will likely be relatively small.

\$ The change in **actual emissions baseline** will not have a significant environmental impact. A small number of existing emissions units may get higher baselines under the NSR Improvement rule and potentially avoid NSR, but other units may get more stringent baselines due to the requirement to adjust the baseline downward to account for any new emissions limits at that unit.

\$ Its overall impact will be small because the baseline change in the rule does not affect new sources, new units built at existing sources, electric utilities, and many modified sources.

\$ The change to an **actual-to-projected-actual** test will have a net environmental benefit, but a relatively small one. The benefit stems from removing: (1) the NSR program's incentive to keep actual emissions high before making a change, and (2) NSR's barriers to projects that will actually reduce emissions. The amount of this benefit nationally is uncertain.

\$ Its impact would be small because the baseline change does not affect either of the following: (1) new sources, new units built at existing industrial facilities, and electric utilities, or (2) any modifications at existing facilities that actually result in increased emissions.

\$ Historically under the NSR rule, virtually all other sources take "permit limits" to avoid NSR. The EPA analysis concludes that the benefits from this aspect of the program are likewise unaffected because such sources must still assure that actual emissions do not significantly increase.