



# Reform or Rollback?

*How EPA's Changes  
to New Source Review  
Could Affect Air  
Pollution in 12 States*

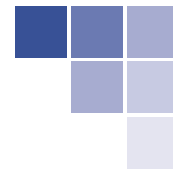
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Summary Report  
October 2003

A joint study by the Environmental Integrity Project and the  
Council of State Governments/Eastern Regional Conference







## About EIP and CSG/ERC

### Environmental Integrity Project (EIP)

EIP is a non-profit, non-partisan organization dedicated to the integrity and enforcement of existing federal and state environmental laws and to the prevention of political interference with those laws. EIP's research and reports offer the public and decision-makers an objective perspective on the effects of enforcement efforts and rulemaking. EIP also works closely with local communities seeking the enforcement of environmental laws.

### Council of State Governments/Eastern Regional Conference (CSG/ERC)

CSG/ERC is a non-profit, non-partisan organization serving legislative, executive and judicial branch officials from the ten Northeastern states, Puerto Rico, the U.S. Virgin Islands, and three eastern Canadian provinces. CSG/ERC promotes region-wide initiatives, facilitates inter-branch cooperation, advocates on state-federal issues, and educates policymakers and the public on regional priorities and trends. **CSG/ERC's Energy & Environment Program** works with state officials from the 15 ERC member jurisdictions to develop innovative policies dedicated to

safeguarding the region's natural resources.

EIP and CSG/ERC joined together on this study to determine what effect, if any, the New Source Review rule finalized on December 31, 2002, would have on emissions from major sources of criteria air pollutants. The groups also wanted to examine the Environmental Protection Agency's statements that other federal pollution control standards would limit emissions of criteria air pollutants where NSR was no longer triggered under the new rule.

The report's methodology and conclusions were found to be credible in separate reviews by the National Academy of Public Administration and Professor William Moomaw of Tufts University. We would like to offer special thanks to the Delaware State Senate and Senate Majority Leader Harris B. McDowell for providing the funding to print this report. We also would like to extend our gratitude to the many state air permitting officials who assisted in compiling the data for this report, and to the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) for coordinating responses from state air permitting officials.

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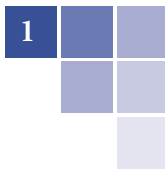
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## Overview

On December 31, 2002, the Environmental Protection Agency (EPA) announced changes to the Clean Air Act's New Source Review (NSR) program.<sup>1</sup> One of the most significant would allow industrial plants other than utilities to increase air emissions to their highest levels in the past ten years without being subject to NSR permit or pollution control requirements. EPA has stated that under the new NSR rule pollution will not increase, in part because other Clean Air Act restrictions will limit emissions growth.

A joint analysis by the **Environmental Integrity Project (EIP)** and the **Council of State Governments/Eastern Regional Conference (CSG/ERC)** reveals that the revised NSR rule could allow significant increases in emissions. In addition, the analysis finds that emissions growth from industrial facilities will often not be limited by other federal programs absent NSR.

The study analyzed emissions and permit data obtained from state agencies to evaluate whether the new, ten-year baseline for measuring emissions would increase air pollution. EIP-CSG/ERC also reviewed the operating permits of existing plants to test whether other restrictions would limit emissions that otherwise would be precluded by NSR. In brief, the data show that emissions are likely to increase under the new rule because **(a) emissions in the past tend to be higher than they are today for many plants**, and **(b) other federal limits are not as stringent as NSR, and may be absent altogether for facilities that are “grandfathered” under the Clean Air Act**. The study looked specifically at emissions from facilities in twelve states, including Connecticut, Delaware, Florida,

Illinois, Indiana, Louisiana, Maine, New Jersey, New York, Pennsylvania, Vermont, and Wisconsin. The individual permits analyzed were chosen from these states' emissions inventories.

EPA reopened the NSR rule on July 25, 2003, for further examination of EPA's assessment of the rule's environmental impacts. Based on the results of this analysis, the Agency should review the EIP-CSG/ERC data as part of this process. In addition, we recommend that states not be required to implement the new NSR rule until the Agency's review of environmental impacts is complete and, regardless of the outcome, that states should be allowed to maintain their own, more stringent standards for controlling emissions growth.

This report was reviewed by the non-partisan National Academy of Public Administration's NSR Panel, which concluded that:

*EIP-CSG/ERC's study presents an appropriate, reasonable, and fair method for determining the environmental impacts of the new 10-year look-back rule. The Panel also finds that EIP-CSG/ERC's methodology and analysis support the report's conclusions that the new rule could allow significant increases in emissions, which will often not be limited by other federal programs absent NSR.*

External reviews and recommendations are discussed in more detail below. The major findings of this report are summarized in the sections that follow.

## The New Rule Allows Emissions to Increase at Many Facilities

The “ten-year lookback” in the new rule could allow emissions from 1,273 major sources to increase by a total of nearly 1.4 million tons in twelve key states (see *Table 1.1*). The results are on an annual basis. (See *Attachment A* for a listing of absolute and relative increases of each of the criteria pollutants in the twelve states examined.)

- Sulfur dioxide emissions could increase by as much as 330,000 tons from all major stationary sources, or an average of 6% above 1999 levels across all twelve states. Illinois has the highest potential emissions increase (78,882 tons) among the twelve states surveyed, while Maine would have the highest percentage increase (32%) above 1999 levels.
- Emissions of nitrogen oxides could increase by as much as 335,000 tons, or an average of 14% above 1999 levels. Louisiana shows the highest potential increase (111,318 tons), while Delaware would have the highest relative increase (64%).
- Volatile organic compounds (which form smog) could increase by 173,000 tons, or an average of 37%. Louisiana has the highest potential increase (57,405 tons), while Pennsylvania would have the highest relative increase (70%).
- Carbon monoxide could increase by more than 488,000 tons, or an average of 36%. Louisiana has the highest potential increase (140,256 tons), while Illinois would have the highest relative increase (58%).
- Particulate matter emissions could increase by as much as 48,800 tons or an average of 14% across all states. Florida has the highest potential increase (10,032), while New York would have the highest percentage increase (55%).

Table 1.1 Additional Allowable Increases in Emissions without Triggering NSR (tons per year)

No.	State	Major Sources	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
1	Connecticut	11	not available	2,068	3,219	54	512
2	Delaware	16	460	13,801	13,847	3,426	3,410
3	Florida	195	10,032	19,376	26,077	13,175	44,430
4	Illinois	158	6,057	39,185	78,882	39,109	69,502
5	Indiana	144	8,828	37,161	45,109	16,445	118,762
6	Louisiana	263	6,025	111,318	48,932	57,405	140,256
7	Maine	24	2,932	5,776	14,755	1,298	5,472
8	New Jersey	47	694	7,703	4,323	6,359	3,964
9	New York	86	2,883	20,388	13,974	3,149	18,263
10	Pennsylvania	250	9,793	70,172	61,693	27,157	69,745
11	Vermont	6	45	0	158	64	149
12	Wisconsin	73	1,056	8,274	19,092	5,784	14,482
<b>Total:</b>		1,273	48,805	335,222	330,061	173,425	488,947

The complete analysis of the emissions inventory data for each of the twelve states can be found in Section 2 and 3, and Appendix A of the full report.

## Absent NSR, Existing Permit Limits May Not Curb Emissions Growth

EPA has claimed that emissions are unlikely to increase under the new NSR rule because the Clean Air Act contains other permit restrictions. In his September 3, 2002 testimony before the Senate Committee on Health, Education, Labor and Pensions, Jeffrey Holmstead, Assistant Administrator for Air and Radiation, stated that:

*An important consideration to keep in mind is that the NSR program is by no means the primary regulatory tool to address air pollution from existing sources. The Clean Air Act provides authority for several other public health-driven and visibility-related control efforts: for example, the National Ambient Air Quality Standards (NAAQS) Program implemented through enforceable state implementation plans, the NOx [State Implementation Plan] call, the Acid Rain Program, the Regional Haze Program, the National Emission Standards for Hazardous Air Pollutants (NESHAP) program, etc. Thus... Congress provided numerous other tools for assuring that emissions from existing sources are adequately controlled.*

EIP and CSG/ERC examined six specific facilities (two refineries, two chemical plants, and two pulp and paper mills) to determine whether other non-NSR federal restrictions would curb emissions growth from production units that were modified but did not trigger NSR (see Table 1.2). The study showed that absent NSR, these permits imposed few constraints on emissions growth:

- At three of these plants, no permit limits other than NSR would limit emissions growth, with one possible – but unlikely – exception for particulate matter at one plant. Emissions from key production units at these plants would rise 1,757 tons under the new rule compared to the old, if the facility took advantage of the ten-year lookback allowed in the new rule.
- At one plant, existing non-NSR emissions limits would restrict emissions growth to 23 tons per year (a 15% increase, instead of a possible 39% increase) under the new rule compared to the old.
- At the remaining two plants, emissions growth could be limited if EPA allows more stringent state preconstruction requirements to remain in effect under the new rule. However, if EPA's final NSR changes preempt state preconstruction requirements, as the Agency has suggested, emissions would rise by 633 tons. Other than state preconstruction requirements, only one other federal limit (for nitrogen oxides at one plant) would have any effect in limiting increases the new rule otherwise would allow.

As the last example illustrates, emissions will increase somewhat less under EPA's NSR changes if states are allowed to keep more stringent permit requirements for plant modifications in place. EPA has suggested that these more stringent standards may be preempted by the final rule, which is one of the reasons fourteen states have petitioned the Court to strike down the regulation.



### **EPA Should Revisit Assumption that Non-NSR Permit Limits Restrict Emissions Growth**

As the EIP-CSG/ERC study illustrates, non-NSR federal restrictions often do not apply to production units that are modified but do not trigger NSR. For example, the Acid Rain Trading Program applies only to utilities, and imposes no limits on refineries, paper mills, steel mills, cement kilns or other stationary sources that benefit from the relaxation of NSR standards in EPA's new rule. Only a handful of counties currently exceed the ambient standards for sulfur dioxide, particulate matter, and carbon monoxide. Consequently, NAAQS-driven limits designed for nonattainment areas have virtually no application to emis-

sions of these pollutants outside those few counties. Moreover, NESHAP standards for hazardous air pollutants do not apply at all to sulfur dioxide, nitrogen oxides, or carbon monoxide, and only to some volatile organic compounds and some of the pollutants that form particulate matter.

Most significantly, the EIP-CSG/ERC study of six plants found a significant number of "grandfathered" production units that appear to be exempt altogether from any real emissions limits, despite the fact that NSR was designed to limit emissions growth from older units.

The detailed analysis of each of the six permits can be found in Sections 4 through 10 of the full report.

Table 1.2 Emissions Impacts of the New NSR Rule: Summary of Permit Analyses

Facility/Company, City, County, State	Pollutant	Allowable increase in emissions without triggering NSR (old rule vs. new rule)	Allowable increase in emissions after taking into account other federally enforceable limits
American Paper Mills of Vermont, Gilman, Essex County, VT	PM	45 tpy / 17%	Increase prohibited if NSPS applicable
	NO <sub>x</sub>	86 tpy / 79%	No other limits apply
	CO	129 tpy / 20%	No other limits apply
BP Amoco Chemical Corp. – Joliet Plant, Channahon Twp, Will County, IL	VOCs	62 tpy / 39%	23 tpy / 15% (NSPS -already applicable, MACT, and current preconstruction permit)
ConocoPhillips Tosco Trainer Refinery, Trainer, Delaware County, PA	PM	1 tpy / 2%	Increase in emissions potentially limited by state preconstruction permitting program
	NO <sub>x</sub>	32 tpy / 8%	Increase in emissions potentially limited by state preconstruction permitting program
	SO <sub>2</sub>	470 tpy / 146%	Increase limited to 265 tpy / 82% if NSPS applicable Increase in emissions potentially limited by state preconstruction permitting program
Degussa Goldschmidt Chemical Corporation, Janesville, Rock County, WI	VOCs	66 tpy / 41%	No other limits apply
Stone Container Corporation, Panama City, Bay County, FL	PM	0 tpy / 0%	No other limits apply
	NO <sub>x</sub>	983 tpy / 93%	No other limits apply
	SO <sub>2</sub>	448 tpy / 22%	No other limits apply
Sunoco Marcus Hook Refinery, Marcus Hook, Delaware County, PA	PM	5 tpy / 14%	Increase in emissions potentially limited by state preconstruction permitting program
	NO <sub>x</sub>	304 tpy / 91%	97 tpy / 29% (NO <sub>x</sub> RACT) Increase prohibited if NSPS applicable Increase in emissions potentially limited by state preconstruction permitting program
	CO	28 tpy / 6%	Increase in emissions potentially limited by state preconstruction permitting program

## How the New 10-Year Baseline Would Allow Emissions to Increase

NSR requires major industrial sources to apply for permits and install – depending on the attainment status of the county in which the source is located – the best available pollution controls or equipment with the lowest achievable emissions rate for any physical modification or operational change that is expected to significantly increase air emissions. Under the law, in most areas of the country an increase is only considered significant if it exceeds 39 tons per year for sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and volatile organic compounds (VOCs); 24 tons per year for particulate matter (PM); and 99 tons per year for carbon monoxide (CO). These provisions are particularly important in controlling emissions from so-called “grandfathered” facilities. Under the Clean Air Act, plants built before 1977 are generally exempt from the strict air pollution control standards that apply to newer sources, until they are modified and emissions increase in a way that triggers NSR. The exemption for grandfathered sources is significant. For example, the state of Texas estimates that over one-third of its industrial emissions come from grandfathered pollution sources.<sup>1</sup>

EPA’s NSR revisions change the way that emissions increases are calculated. Under the old rule, facilities other than power plants measured potential emissions increases from a plant modification against a “baseline” of the most recent two-year

average annual emissions. Only if a facility could prove that a different period was “more representative” of its historical emissions would it be allowed to use data from earlier years.<sup>2</sup> For example, suppose a facility wanted to rebuild and expand an old boiler with average annual emissions of 505 tons per year of NO<sub>x</sub> in 2000 and 2001. Under the old rule, the utility would have to obtain an NSR permit and install state-of-the-art emissions controls if it expected the boiler’s NO<sub>x</sub> emissions after project completion to exceed 505 tons, plus 39 tons (the significance level for NO<sub>x</sub>). Thus, the company would be subject to NSR if it expected the boiler’s NO<sub>x</sub> emissions to exceed 544 tons.

Under the new rule, industrial plants other than utilities are allowed to avoid NSR so long as their emissions do not exceed their highest levels in the past ten years. In the example above, suppose the boiler averaged 505 tons in annual NO<sub>x</sub> emissions in 2001 and 2002, but 938 tons in 1995 and 1996. The new rule would allow the facility to increase its emissions after rebuilding the boiler to 938 tons plus the “significance level.” For example, under the new rule the company would only be subject to NSR if it expected the boiler’s NO<sub>x</sub> emissions to exceed 977 tons (i.e., 938 + 39) after reconstruction. Figure 1.1 illustrates this example. Plants may not exceed other permit restrictions, but, as explained above, these restrictions often do not apply.

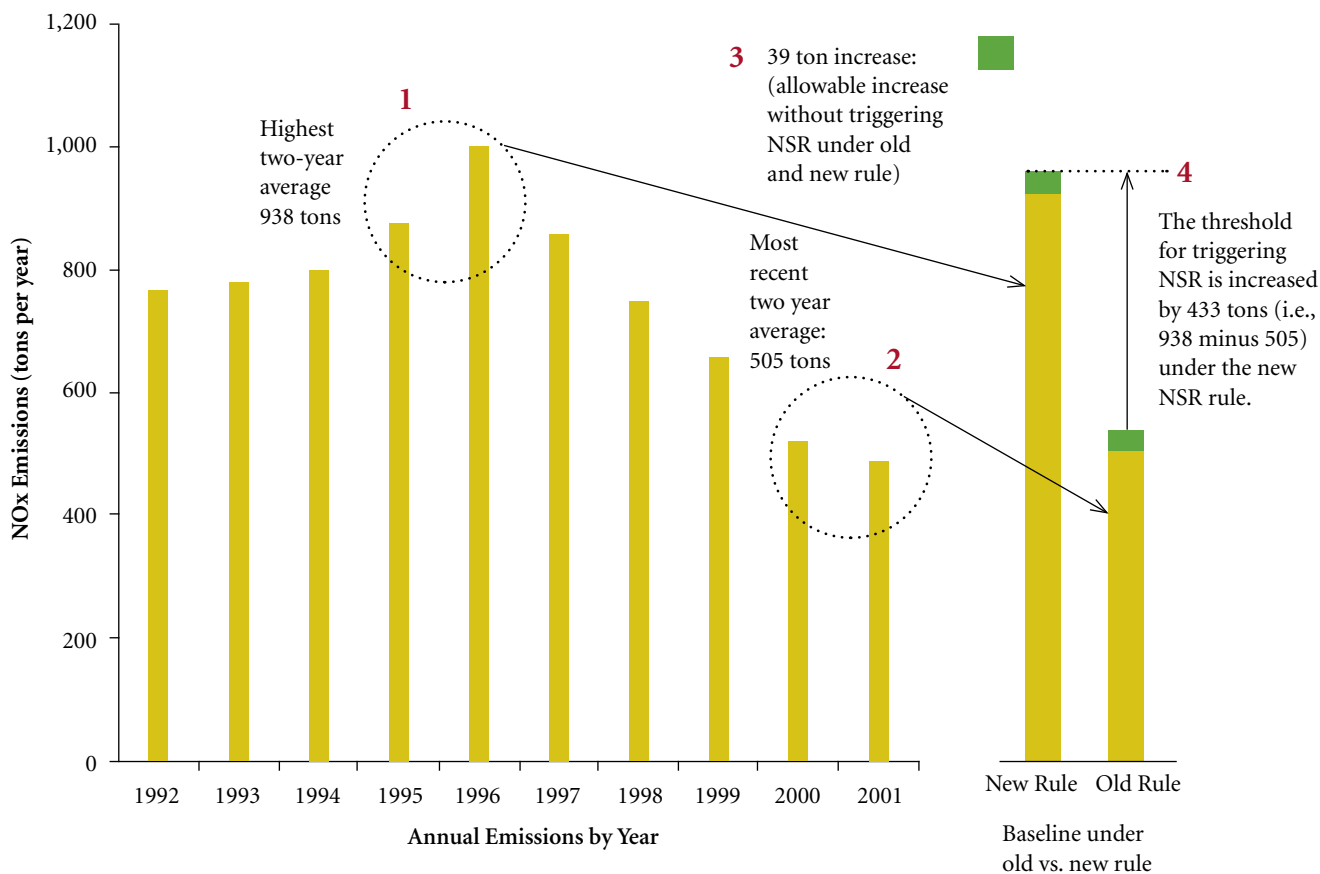
### States Have Generally Measured Expected Emissions Increases Against More Recent Emissions Levels

EPA has suggested that its new, ten-year baseline for calculating emissions increases will have little impact because the previous rule allowed use of any historical emissions data considered “more representative” of actual emissions, giving the impression that this exception was frequently invoked.<sup>3</sup> To test this theory against actual practice, we asked thirteen states (including the twelve included in this report) how often they had allowed companies to deviate from the general requirement that expected emissions increases to be measured against the most recent two-year average. The State and Territorial Air Pollution Program Administrators (STAPPA)

and the Association of Local Air Pollution Control Officials (ALAPCO) helped to obtain responses from eleven states. Results of the survey appear in Appendix B.

Ten of the eleven states reported using the two-year baseline the “majority,” the “vast majority,” or “80-90%” of the time. One state typically allowed use of the highest two-year average emissions in the five years preceding the planned modification, while other states occasionally allowed use of data from within the last five years. Seven of the eleven states had never allowed use of a baseline beyond five years, while four states had allowed use of such data “very rarely.” Thus, EPA’s suggestion that a different baseline was frequently used is not supported by the experience of states that administer the program.

Figure 1.1 Illustration of Baseline Calculations





## How EIP and CSG/ERC Gathered and Analyzed the Data

The EIP-CSG/ERC study examined both statewide emissions inventory data and individual permits. The first step was to obtain emissions inventory data (which EPA requires states to maintain) from a large cross-section of states. Because NSR applies only to major sources, the data were then sorted on a pollutant-by-pollutant basis to eliminate any facilities that did not report significant quantities of regulated pollutants. Because the new ten-year baseline does not apply to power plants, such facilities were also eliminated from the database. Finally, only sources that reported emissions in recent years were included, to reduce the likelihood that plant shutdowns would distort the analysis. Using the data collected, emissions baselines were calculated for each facility based on a ten-year historical period to approximate the analysis that a facility would perform in complying with the new rule.<sup>1</sup> Emissions baselines were also calculated based on a facility's most recent two years of emissions in order to approximate the baseline calculation specified in the old rule (see discussion of limitations).

Recall that the new rule allows an industrial plant to escape NSR so long as its emissions do not exceed the average emissions calculated based on any consecutive twenty-four-month period during the entire decade prior to the modification, plus a pollutant-specific emissions increase (or "significance level"). The facility's potential to increase emissions under the new rule compared to the old was calculated by subtracting the most recent two-year average (old rule baseline) from the highest two-year average within the past ten years (the new rule baseline) for each regulated pollutant. EIP-CSG/ERC selected six facilities from the universe of facilities that was found to have a higher NSR baseline under the new rule to determine whether other permit limits would restrict their emissions growth. A significant process unit, or group of units, was selected within each facility for further study. The study evaluated potential restrictions in the facility and process unit's permit and in State Implementation Plans (SIPs), including New Source Performance Standards (NSPS), the NO<sub>x</sub> SIP call, regulations on hazardous air pollution, and any other limits that appeared applicable.

## Limitations of the Analysis

Any evaluation of emissions and permit data, no matter how careful, must be accompanied by an explanation of limitations that could lead to some distortion of results. The inventory data that EIP-CSG/ERC evaluated is no doubt inaccurate for some facilities, and this may overstate or understate the impact of the new rule. For example, historic emissions data may be overstated for some sources where the Agency has recently determined that earlier emissions estimates were too high. Or, it is possible that the data include plants that have been shut down, despite efforts to omit such plants from the analysis. On the other hand, the lack of emissions data for some facilities may mean that emissions were undercounted in earlier years, e.g., because proper monitoring methods had not yet been developed. The older data may also not include pollution from sources that have only recently been measured. Under the old rule, a facility could rely on emissions from an earlier period (before the most recent two years) if a state agency determined this period was more representative of actual emissions. A review of state experience (discussed above) suggests that use of these older baselines was relatively infrequent, however.

There are several ways the EIP-CSG/ERC analysis is conservative. First, a source is considered “major” if it has the potential to emit pollution above a certain threshold. The EIP-CSG/ERC analysis includes only those facilities that show actual releases above that threshold, excluding some sources that would otherwise show a potential increase in emissions under the new rule. Second, a number of states did not have reliable emissions data as far back

as ten years. In such cases, the analysis was limited to a shorter period (e.g., seven or eight years). For those states, the analysis would not have included facilities that might have had higher emissions in earlier years, and hence would have reduced the average emissions results for those particular states. Potential emissions increases from individual facilities are provided in the main report to reflect the data used by EIP-CSG/ERC. But as the data limitations above suggest, the analysis of inventory data is most useful for considering the aggregate effect of potential increases from major sources, rather than predicting potential increases at individual facilities. Finally, under the new rule a facility can use accidental releases to inflate its baseline emissions, which will make it easier to avoid NSR. These accidental emissions, which can be substantial, are not included in the analysis.

With respect to the permit analyses, EIP-CSG/ERC chose to examine process units (e.g., industrial boilers) at individual facilities because most permit restrictions are written for process units. In some cases, there were no historical emissions data for a facility, so emissions were apportioned based on the unit’s relative heat input. This method seemed fair for combustion sources, but may not provide an accurate basis for estimating pollutants like PM, where total facility emissions may include some non-combustion sources. To be conservative, the analysis assumed that any NSPS/maximum achievable control technology (MACT) standard developed for the relevant source category would apply to the process unit in question, which may not always be the case.

## External Review

The report's findings and methodology were reviewed by the National Academy of Administration's (NAPA) NSR Panel. NAPA is an independent, non-profit, non-partisan organization chartered by Congress. NAPA's NSR Panel was commissioned by Congress to conduct an independent management analysis of the NSR program, including recommendations about the program. The NSR Panel completed its report to Congress in April of 2003.<sup>1</sup> The Panel's review of the EIP-CSG/ERC report is attached to the full report, available at <http://www.environmentalintegrity.org> or <http://www.csgeast.org>.

As noted above, NAPA found that the report's methodology supported EIP's and CSG/ERC's conclusions. NAPA's NSR Panel concluded that "EIP-CSG/ERC's study shows that a careful, quantitative analysis can be done," and recommended that EPA apply the analysis to all fifty states.

The NAPA review was consistent with an evaluation by Dr. William Moomaw, professor of International Environmental Policy at Tufts University. Like NAPA's NSR Panel, Dr. Moomaw's review found that the analysis employed generally conservative assumptions, and "demonstrates convincingly the potential emission increases that would be allowable under the new rule." Dr. Moomaw also noted that "U.S. policy goals would be well served if the type of quantitative analysis done here were performed by the rule-making agency when assessing the likely outcome of proposed rules." Dr. Moomaw's review is appended to the full report, obtainable on EIP's and CSG/ERC's websites.

EIP staff also participated in a conference call with air program officials from ten of the twelve states examined in this study to discuss the report's findings. EIP invited follow-up corrections to the state data, and in fact made several corrections to inventory data from Indiana following discussions with that state. No other corrections were received. An explanation of the Indiana corrections can be found in the full report.

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## Recommendations

On Friday, July 25, 2003, EPA reopened its new NSR rule for further examination of its potential environmental impact, including whether or not the ten-year baseline would allow emissions to increase. The following recommendations are offered as EPA considers the future of the NSR program:

- The Agency should consider the CSG/ERC and EIP data and conduct its own objective and transparent review of emissions and permit data.
- State agencies should not be required to implement the new NSR rule until the Agency's review of environmental impacts is complete.
- Federal law has always recognized the right of states to maintain more stringent emissions limits. EPA should allow any state to maintain its own permit requirements for construction or modifications, so long as these are more stringent than federal standards require.

## How Significant are the Emissions Increases?

Having calculated the potential increases in emissions under the new NSR rule, a logical question is whether these levels are significant. For example, if facilities in Pennsylvania were to increase their emissions of PM by 9,793 tons, as this analysis suggests is now possible, is this increase significant relative to current levels of emissions in the state?

To judge the significance of the results, the potential increases in emissions under the new NSR rule were compared against total statewide emissions for each of the pollutants. The following tables present the calculations that were performed for PM,

NO<sub>x</sub>, SO<sub>2</sub>, VOCs, and CO. Potential increases were compared with total stationary source emissions for each state, to provide a common basis for comparison (i.e., 1999 stationary source emissions from EPA's Web site). Total stationary source emissions include utilities, which are not affected by the new NSR rule, making this comparison somewhat conservative.

In general, the results suggest that the allowable increases are significant, while varying substantially between states. For example, for VOCs, the increases range from one percent to a high of 70 percent.

Allowable Increases Relative to Total Statewide Emissions: PM

State	(A) Allowable Increase Without Triggering NSR (tons)	(B) Total Stationary Source Emissions (1999, tons) <sup>1</sup>	(A / B) Increase as Percent of Total Emissions
Connecticut	NA	NA	NA
Delaware	460	2,908	16%
Florida	10,032	69,526	14%
Illinois	6,057	47,144	13%
Indiana	8,828	72,192	12%
Louisiana	6,025	69,682	9%
Maine	2,932	11,587	25%
New Jersey	694	25,015	3%
New York	2,883	5,265	55%
Pennsylvania	9,793	42,326	23%
Vermont	45	524	9%
Wisconsin	1,056	11,272	9%
TOTAL	48,805	357,441	14%

<sup>1</sup> Source: U.S. EPA, <http://www.epa.gov/air/data/geosel.html>

Allowable Increases Relative to Total Statewide Emissions: NO<sub>x</sub>

State	(A) Allowable Increase Without Triggering NSR (tons)	(B) Total Stationary Source Emissions (1999, tons) <sup>1</sup>	(A / B) Increase as Percent of Total Emissions
Connecticut	2,068	19,151	11%
Delaware	13,801	21,483	64%
Florida	19,376	391,135	5%
Illinois	39,185	404,240	10%
Indiana	37,161	438,259	8%
Louisiana	111,318	346,603	32%
Maine	5,776	24,716	23%
New Jersey	7,703	117,850	7%
New York	20,388	161,779	13%
Pennsylvania	70,172	314,147	22%
Vermont	0	1,290	0%
Wisconsin	8,274	151,261	5%
<b>TOTAL</b>	<b>335,222</b>	<b>2,391,913</b>	<b>14%</b>

<sup>1</sup> Source: U.S. EPA, <http://www.epa.gov/air/data/geosel.html>

Allowable Increases Relative to Total Statewide Emissions: SO<sub>2</sub>

State	(A) Allowable Increase Without Triggering NSR (tons)	(B) Total Stationary Source Emissions (1999, tons) <sup>1</sup>	(A / B) Increase as Percent of Total Emissions
Connecticut	3,219	47,681	7%
Delaware	13,847	69,694	20%
Florida	26,077	813,746	3%
Illinois	78,882	950,746	8%
Indiana	45,109	1,046,204	4%
Louisiana	48,932	288,196	17%
Maine	14,755	46,367	32%
New Jersey	4,323	131,184	3%
New York	13,974	376,850	4%
Pennsylvania	61,693	1,096,193	6%
Vermont	158	1,399	11%
Wisconsin	19,092	281,818	7%
<b>TOTAL</b>	<b>330,061</b>	<b>5,150,077</b>	<b>6%</b>

<sup>1</sup> Source: U.S. EPA, <http://www.epa.gov/air/data/geosel.html>

## Allowable Increases Relative to Total Statewide Emissions: VOCs

State	(A) Allowable Increase Without Triggering NSR (tons)	(B) Total Stationary Source Emissions (1999, tons) <sup>1</sup>	(A / B) Increase as Percent of Total Emissions
Connecticut	54	3,910	1%
Delaware	3,426	5,744	60%
Florida	13,175	36,116	36%
Illinois	39,109	80,409	49%
Indiana	16,445	55,649	30%
Louisiana	57,405	85,873	67%
Maine	1,298	5,343	24%
New Jersey	6,359	65,161	10%
New York	3,149	52,818	6%
Pennsylvania	27,157	38,800	70%
Vermont	64	1,713	4%
Wisconsin	5,784	34,665	17%
<b>TOTAL</b>	<b>173,425</b>	<b>466,201</b>	<b>37%</b>

<sup>1</sup> Source: U.S. EPA, <http://www.epa.gov/air/data/geosel.html>

## Allowable Increases Relative to Total Statewide Emissions: CO

State	(A) Allowable Increase Without Triggering NSR (tons)	(B) Total Stationary Source Emissions (1999, tons) <sup>1</sup>	(A / B) Increase as Percent of Total Emissions
Connecticut	512	5,776	9%
Delaware	3,410	16,031	21%
Florida	44,430	172,444	26%
Illinois	69,502	120,871	58%
Indiana	118,762	439,593	27%
Louisiana	140,256	304,693	46%
Maine	5,472	14,185	39%
New Jersey	3,964	42,059	9%
New York	18,263	67,784	27%
Pennsylvania	69,745	121,335	57%
Vermont	149	2,145	7%
Wisconsin	14,482	51,592	28%
<b>TOTAL</b>	<b>488,947</b>	<b>1,358,509</b>	<b>36%</b>

<sup>1</sup> Source: U.S. EPA, <http://www.epa.gov/air/data/geosel.html>

## ATTACHMENT B

## State Regulatory Officials' Responses Regarding Historical Baseline Emissions Calculations and Use of Emissions from Startups, Shutdowns, and Malfunctions\*

State	Period Used for Baseline			Use of Startups, Shutdowns, and Malfunctions to Calculate Baseline Emissions
	2 Years	2-5 Years	5-10 Years	
Connecticut	Majority	Very Rarely	Once	No
Delaware	Vast Majority	Very Rarely	Never	No
Florida	Vast Majority	Very Rarely	Never	No record of counting emissions from past malfunctions, startups, and shutdowns. However, permittees are not prohibited from considering such data if good reason exists to do so.
Illinois	Majority	Sometimes	Very Rarely	No
Indiana	Majority	Sometimes	Never	No
Louisiana <sup>1</sup>				
Maine <sup>1</sup>				
New Hampshire <sup>2</sup>		Vast Majority	Very Rarely	No
New Jersey	Majority	Very Rarely	Never	No
New York	80-90%	10-20%	Never	No
Pennsylvania	80-90%	10-20%	Never	No
Vermont	Vast Majority	Very Rarely	Never	Response Pending
Wisconsin	Vast Majority	Sometimes	Never	No, but the state will tally emissions from malfunctions, and, if they exceed permit limits, will require facilities to apply for NSR and install requisite pollution controls.

<sup>1</sup> Did not respond.

<sup>2</sup> Not included in report, but responded to STAPPA/ALAPCO inquiry.

\* Obtained August 11, 2003.



## Endnotes

<sup>1</sup> Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Baseline Emissions Determination, Actual-to-Future-Actual Methodology, Plantwide Applicability Limitations, Clean Units, Pollution Control Projects, 67 Fed. Reg. 80,186 (Dec. 31, 2002) (to be codified at 40 C.F.R pts. 51 and 52). All references to NSR are intended to refer to both nonattainment NSR and attainment PSD programs. On August 27, 2003, the Environmental Protection Agency announced further exemptions to NSR for projects that meet an expanded definition of “routine replacement.” This analysis, however, is limited to the December 2002 rulemaking.

<sup>2</sup> Texas Commission on Environmental Quality (formerly Texas Natural Resource Conservation Commission), “Grandfathered Facilities Report,” (SFR-071) (Revised Jan. 24, 2001), *available at* <http://www.tnrcc.state.tx.us/admin/topdoc/sfr/071/071.pdf>.

<sup>3</sup> See 40 C.F.R. § 51.165(a)(1)(xii)(B) (as codified prior to Dec. 31, 2002).

<sup>4</sup> See Environmental Protection Agency, “Supplemental Analysis of the Environmental Impact of the 2002 Final NSR Improvement Rules,” *available at* <http://www.epa.gov/nsr> (Docket ID No. A-90-37, Document IV-A-7).

<sup>5</sup> In many cases, state authorities were unable to provide ten years of historical emissions data. Therefore, the analysis relied on the years available, but never used less than six years of data to calculate facility baselines.

<sup>6</sup> See National Academy of Public Administration, “A Breath of Fresh Air: Reviving the New Source Review Program” (Apr. 2003). The summary and full reports can be obtained at <http://www.napawash.org>.



For a copy of the full report, visit <http://www.rffund.org> or <http://www.csgeast.org>.