Reform or Rollback?

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

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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Section 1
Overview

On December 31, 2002, the Environmental Protection Agency (EPA) announced changes to the Clean Air Act's New Source Review (NSR) program.[i] 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 state 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 comments are discussed in more detail below.

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). (*See* Section 3 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
TOTAL:		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 Sections 2 and 3, and in Appendix A.

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 the 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 emissions 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 emission 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.

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_x	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_x	32 tpy / 8%	Increase in emissions potentially limited by state preconstruction permitting program
	SO_2	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_x	983 tpy / 93%	No other limits apply
	SO_2	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_x	304 tpy / 91%	97 tpy / 29% (NO_x 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_2), nitrogen oxides (NOx), 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.[ii]

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.[iii] For example, suppose a facility wanted to rebuild and expand an old boiler with average annual emissions of 505 tons per year of NOx 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 NOx emissions after project completion to exceed 505 tons, plus 39 tons (the significance level for NOx). Thus, the company would be subject to NSR if it expected the boiler's NOx 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 NOx 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 NOx 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.[iv] 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.

EPA's suggestion that a different baseline was frequently used is not supported by the experience of states that administer the program. Of the eleven states polled, ten reported using the two-year baseline the "majority," "vast majority," or "80-90%" of the time. Only two states responded that a

period between two and five years was used "sometimes," with the majority answering "rarely," "very rarely" or "10-20%." Nine of the eleven responsive states had never allowed use of a baseline period beyond five years. The remaining two allowed use of such data "once" and "very rarely."

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.[v] 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 NOx SIP call, regulations on hazardous air pollution, and any other limits that appeared applicable.

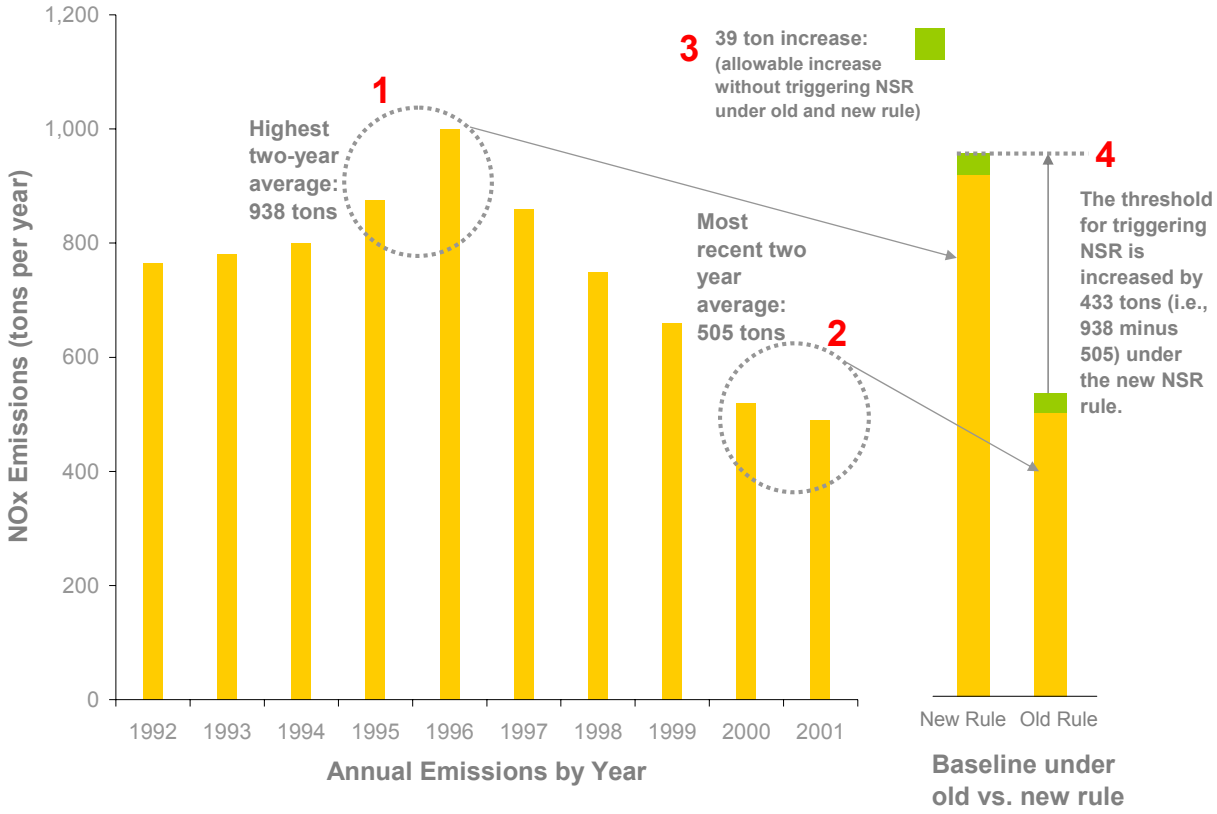


Figure 1.1 Illustration of Baseline Calculations

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 threshhold. 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.[vi] The Panel's review of the EIP-CSG/ERC report can be found in Appendix C.

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 emissions 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 at Appendix C.

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 after the emissions inventory results for Indiana listed in Appendix A.

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.

Section 2

Explanation of Methodology—Inventory Analyses

The New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new rule") changes the calculation of the emissions baseline for the purpose of determining whether or not the modification of a facility triggers NSR. Under the new rule, a facility other than a power plant may use any consecutive 24-month period during the 10-year period prior to the modification to establish its baseline. The old rule required facilities to use the two-year period immediately prior to the modification unless the permitting agency determined that another time period was more representative of actual operations. Because of the added flexibility afforded by the new rule, a modification is less likely to trigger NSR under the new as opposed to the old rule. Also, NSR will never be triggered under the new rule where it would not have been under the old rule. If a modification does not trigger NSR, it will escape the requirement, among others, that it install up-to-date pollution control equipment.

In order to better understand the consequences of EPA's decision to revise the baseline methodology, we examined historical emissions data reported by facilities in 12 states (see Table 1). Many states require that major sources of emissions report their aggregate annual emissions to their state air quality agency. These data are submitted to EPA to be compiled in a single national database. Based on data obtained directly from state air quality officials, 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.[vii] 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. Calculating a facility's baseline based on the highest two year average selected from a ten-year period, as opposed to the most recent two-year period, will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. The old rule remains in place for power plants and for that reason they were not included in our inquiry.

Based on this analysis, we can identify sources that would likely rely on a higher baseline under the new rule than under the old rule when performing an NSR applicability determination. As a result of the changes to the NSR rule, these facilities are more likely to avoid the requirement to install up-to-date pollution control equipment. In addition, the analysis allows us to quantify the additional tons of pollution that a facility can generate without triggering NSR relative to the old rule. For example, in some cases, we found that facilities have the flexibility to increase their

particulate matter (PM) emissions by more than 100 tons per year without triggering NSR requirements. An increase in emissions of this magnitude would not have been allowed under the old rule. Rather, the company would have limited its emissions or the facility would have triggered NSR and installed up-to-date pollution control equipment. Finally, this analysis allows us to calculate the total potential increase in emissions across all large stationary sources in a state.

It is important to emphasize that the emissions increases calculated in this analysis represent *potential* increases in emissions. A facility may or may not take advantage of the additional flexibility afforded by the new NSR rule. For example, this analysis does not take into account alternative permit restrictions that could prevent emissions from rising under the new rule. This issue is examined elsewhere in this report (in the permit analysis). The reader is directed to Section 1 of this report for a discussion of the limitations associated with the analysis. Analysis of historic emissions provides a preliminary indication of the extent of emissions increases that might be allowed under the new rule.

Methodology

Several steps were involved in simulating an NSR applicability determination based on the requirements of the old rule and the new rule.

Step 1: Obtaining State Emissions Inventories

The first step was to obtain emissions inventory data from a large cross-section of states. The inventories obtained reflect annual emissions of criteria pollutants, reported at a plant level. We sought to obtain ten years of emissions data, starting with the most recent year available. In many cases, state authorities were unable to provide ten years of historical data. Therefore, the analysis relied on the years provided, but never used less than six years of data to calculate facility baselines. Table 2.1 lists the states and time periods analyzed. These states were selected because they were able to provide the necessary data.

Table 2.1 State Emissions Inventories Analyzed

No.	State	No. of Years Analyzed	Time Period Analyzed
1	Connecticut	10	1993-2002
2	Delaware	8	1992-1999
3	Florida	10	1992-2001
4	Illinois	10	1992-2001
5	Indiana	6	1996-2001
6	Louisiana	7	1994-2000
7	Maine	9	1992-2000
8	New Jersey	8	1993-2000
9	New York	6	1996-2001
10	Pennsylvania	10	1991-2000
11	Vermont	10	1992-2001
12	Wisconsin	7	1995-2001

Step 2: Identifying Major Sources

Second, a methodology was developed to identify "major sources" within the state emissions inventories. The NSR rule applies to major sources of emissions; therefore, we had to restrict the analysis to these sources. The thresholds for determining whether a facility is a major source are defined in the NSR regulations, and are based on a facility's potential to emit. Also, the thresholds apply on a pollutant-by-pollutant basis. The thresholds are 100 tons per year or 250 tons per year depending upon the source classification of the facility.[viii] A facility that falls within one of 28 listed categories is subject to a 100-ton threshold. All other sources are subject to a 250-ton threshold.

In order to identify major facilities and, more specifically, the individual criteria pollutants for which a facility is classified as major, we first had to determine whether a facility was subject to a 100-ton or a 250-ton threshold. If a state was unable to provide some indication of a facility's source classification (e.g., SIC code), then we assumed a 250-ton threshold for all facilities. If a state did provide an indication of a facility's source classification, we would identify sources subject to a 100-ton threshold based on the information provided. Table 2.2 lists the 28 source categories that are subject to a 100-ton threshold as well as the Standard Industrial Classification (SIC) codes that we assumed provided the best match for the purposes of categorizing the facilities.[ix] Sources not listed as falling within these source categories were assumed to be subject to a 250-ton threshold.

Table 2.2 Source Categories Subject to a 100 ton Major Source Threshold

No.	Listed Source Categories subject to a 100 ton Major Source Threshold	SIC Code
1	Coal cleaning plants (with thermal dryers)	1221
2	Kraft pulp mills	2611
3	Portland cement plants	3241
4	Primary zinc smelters	33
5	Iron and steel mill plants	33
6	Primary aluminum ore reduction plants	33
7	Primary copper smelters	33
8	Municipal Incinerators capable of charging more than 250 tons of refuse per day	4953
9	Hydrofluoric acid plants	28
10	Sulfuric acid plants	28
11	Nitric acid plants	28
12	Petroleum refineries	2911

No.	Listed Source Categories subject to a 100 ton Major Source Threshold	SIC Code
13	Lime plants	3274
14	Phosphate rock processing plants	1475
15	Coke oven batteries	33
16	Sulfur recovery plants	28
17	Carbon black plants	2895
18	Primary lead smelters	33
19	Fuel conversion plants	-
20	Sintering plants	1011 and 3312
21	Secondary metal production plants	33
22	Chemical process plants	28
23	Fossil fuel boilers (or combinations thereof) totaling more than 250 million But/hr heat input	-
24	Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels	5171
25	Taconite ore processing plants	1011
26	Glass fiber processing plants	-
27	Charcoal production plants	28
28	Fossil fuel-fired steam electric plants of more than 250 mmBtu	NA

Having identified sources likely subject to a 100- and 250-ton threshold, we compared for each facility its *actual* annual emissions over the past five years with the applicable major source threshold, in order to identify the major sources. Ideally, we would have compared the major source thresholds against a source's *potential* emissions. However, absent this information, we used actual emissions as a proxy for potential emissions. Because actual emissions will always be equal to or less than potential emissions, this is a conservative assumption. In some cases, the analysis may misidentify a major source as a minor, but it should never identify a minor source as a major. Like other assumptions, it makes the analysis more conservative.

Step 3: Calculating the Alternative Baselines

The third step in the analysis was to actually calculate the baseline emissions for major sources according to the requirements of the old rule and the new rule. To calculate a facility's baseline according to the old rule, we relied on the two most recent years of data available and calculated a simple average. To calculate a facility's baseline according to the new rule, we relied on the highest (consecutive) two years of emissions and again calculated a simple average. Figure 2.1 illustrates the calculations that were performed. In the example shown, we see that the highest average (1) occurs in 1995-1996. This value is 938 tons and is referred to as the new rule baseline. The most recent two-year average, or the old rule baseline, is 505 tons (2).

With these two figures, the old rule baseline and the new rule baseline, we can then calculate the allowable increase in emissions without triggering NSR. Major facilities that undertake a modification can increase their annual emissions above their historic baseline by an amount below the quantities listed in Table 2.3 and avoid triggering NSR. Figure 2.1 illustrates this allowable increase (3), in this case for NOx. Under the old rule and the new rule, a facility can increase its emissions by less than the significance level and avoid triggering NSR. The difference between the new rule threshold and the old rule threshold represents the potential increase in emissions available to facilities as result of adopting the new NSR rule.

Table 2.3 NSR Significance Levels

Pollutant	Significance level (tons per year)
Carbon Monoxide	100
Nitrogen Dioxide	40
Sulfur Dioxide	40
Particulate Matter	25
Volatile Organic Compounds	40

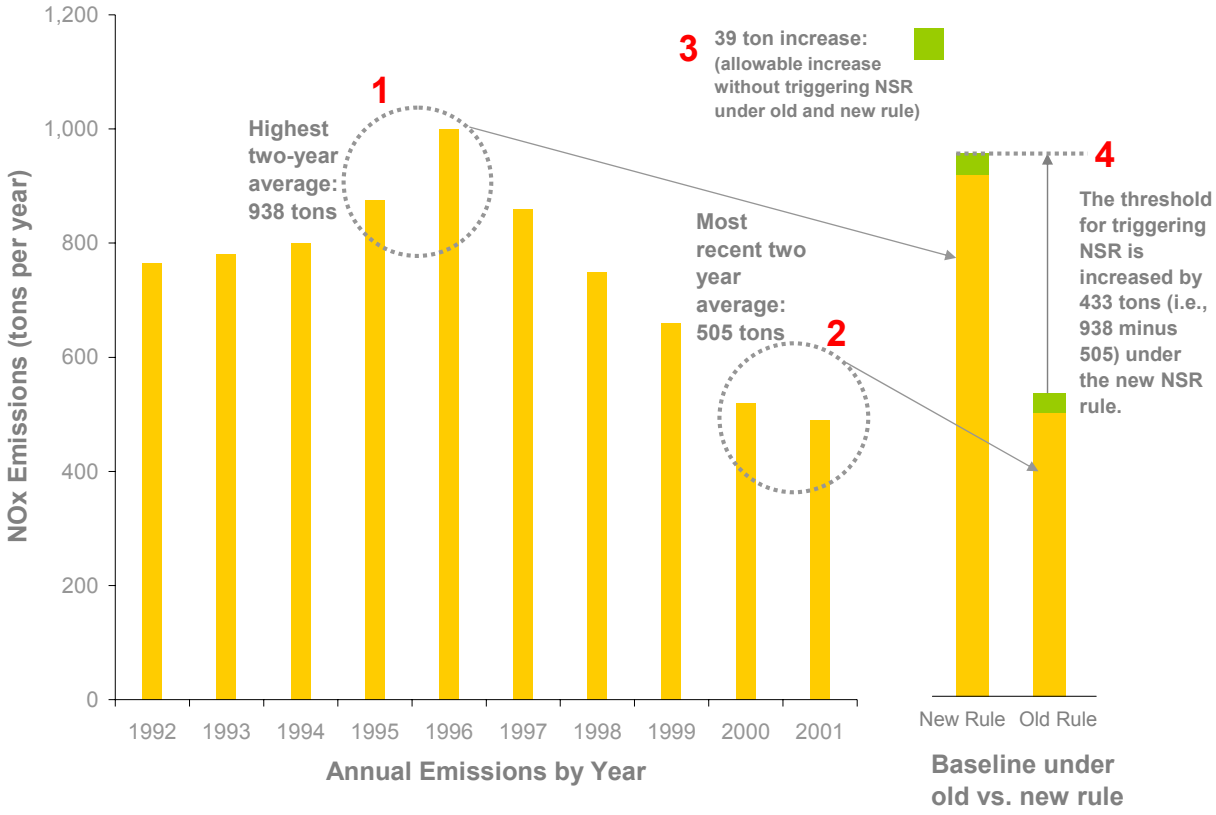


Figure 2.1 Illustration of Baseline Calculations

Section 3
Results—Inventory Analyses

The New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new rule") changes the calculation of the emissions baseline for the purpose of determining whether or not the modification of a facility triggers NSR. Under the new rule, a facility other than a power plant may use any consecutive 24-month period during the 10-year period prior to the modification to establish its baseline. The old rule required facilities to use the two-year period immediately prior to the modification unless the permitting agency determined that another time period was more representative of actual operations. Because of the added flexibility afforded by the new rule, a modification is less likely to trigger NSR under the new as opposed to the old rule. Also, NSR will never be triggered under the new rule where it would not have been under the old rule. If a modification does not trigger NSR, the facility will escape the requirement, among others, that it install up-to-date pollution control equipment.

The Environmental Integrity Project (EIP) and the Council of State Governments/Eastern Regional Conference (CSG/ERC) have evaluated the consequences of EPA's decision to revise the baseline methodology by examining historical emissions data reported by facilities in 12 states (see Table 3.1). The results of this analysis, applying conservative assumptions, suggest that a large number of industrial facilities could significantly increase emissions of particulate matter, nitrogen oxides, sulfur dioxide, volatile organic compounds, and carbon monoxide as a result of changing the baseline methodology. Under the previous NSR rule, increases in emissions of this magnitude would not have been allowed. Rather, companies would have limited their emissions or they would have triggered NSR and installed up-to-date pollution control equipment.

Section 2 of this report provides a detailed discussion of the methodology employed in performing this inventory analysis.

Summary of Results

Analyses of facilities in twelve states identified 1,273 major sources that could potentially increase their emissions under the new NSR rule relative to the old rule without triggering NSR. (In many cases, these facilities were able to increase their emissions for multiple pollutants.) The total potential increases in emissions by state are summarized in Table 3.1 and in Figures 3.1 to 3.5. Facility-specific increases are presented in Appendix A.

Table 3.1 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[1]	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
TOTAL:		1,273	48,805	335,222	330,061	173,425	488,947

1. Three facilities in Louisiana were eliminated from the calculation of CO emissions (Cabot Corp. Ville Platte and Canal, and Columbian Chemical North Bend) because they report such unusually high levels of CO emissions in the period from 1994 to 1996. Including these facilities significantly increases the potential increase for the state (i.e., to 497,663 tons).

Having calculated these potential increases in emissions, 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?

In probing this question, we came to the conclusion that the increases presented in Table 3.1 are significant, although the results vary by state. In some cases, they are highly significant. For example, EPA reports that all stationary sources in Pennsylvania (including power plants) released a total of 42,326 tons of PM in 1999. The potential increase that we calculated—9,793 tons—is equivalent to 23 percent of the state's total emissions.

Upon reflection, this outcome is not entirely surprising. By selecting the highest consecutive two-year average over a ten-year period, one is hand picking, on a facility-by-facility basis, some of the highest emissions years across the entire inventory. Many facilities are eliminated from the inventory because they are utility sources, non-major sources, or do not show an increase in their baseline emissions. Despite this, the results still suggest that the flexibility afforded by the new

NSR rule creates the potential for significant increases in emissions. Tables 3.2 to 3.6 present the calculations that were performed for PM, NOx, SO_2, VOCs, and CO to judge the significance of the results. For example, for VOCs, the increases range from one percent to a high of 70 percent.

Table 3.2 Allowable Increases Relative to Total Statewide Emissions: PM

State	**(A)** Allowable Increase Without Triggering NSR (tons)	**(B)** Total Stationary Source Emissions (1999, tons)[1]	**(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]	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%

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

2. PM emissions in New York (1999) may be underestimated based on the fact that many sources in the database did not report emissions.

Table 3.3 Allowable Increases Relative to Total Statewide Emissions: NOx

State	**(A)** Allowable Increase Without Triggering NSR (tons)	**(B)** Total Stationary Source Emissions (1999, tons)[1]	**(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%
TOTAL	335,222	2,391,913	14%

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

Table 3.4 Allowable Increases Relative to Total Statewide Emissions: SO_2

State	**(A)** Allowable Increase Without Triggering NSR (tons)	**(B)** Total Stationary Source Emissions (1999, tons)[1]	**(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%
TOTAL	330,061	5,150,077	6%

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

Table 3.5 Allowable Increases Relative to Total Statewide Emissions: VOCs

State	**(A)** Allowable Increase Without Triggering NSR (tons)	**(B)** Total Stationary Source Emissions (1999, tons)[1]	**(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%
TOTAL	173,425	466,201	37%

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

Table 3.6 Allowable Increases Relative to Total Statewide Emissions: CO

State	**(A)** Allowable Increase Without Triggering NSR (tons)	**(B)** Total Stationary Source Emissions (1999, tons)[1]	**(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[2]	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%
TOTAL	488,947	1,358,508	36%

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

2. Three facilities in Louisiana were eliminated from this calculation (Cabot Corp. Ville Platte and Canal, and Columbian Chemical North Bend) because they reported such unusually high levels of carbon monoxide emissions in the period from 1994 to 1996. Including these facilities significantly increases the potential increase for the state (i.e., to 160% of statewide emissions).

Figure 3.1 Additional Allowable Increases in Particulate Matter Emissions without Triggering NSR (tons per year)

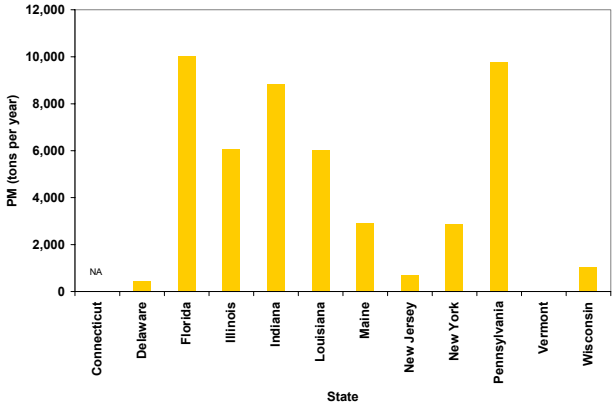


Figure 3.2 Additional Allowable Increases in Nitrogen Oxides Emissions without Triggering NSR (tons per year)

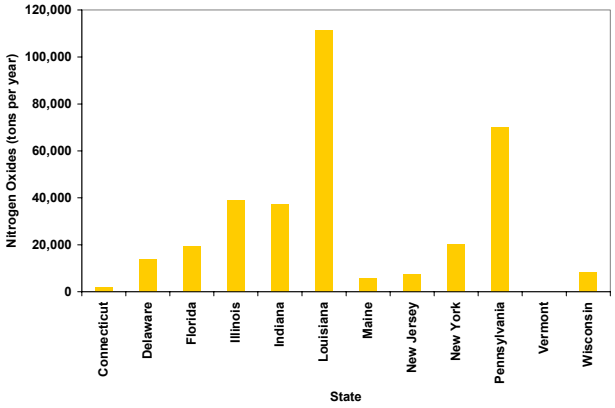


Figure 3.3 Additional Allowable Increases in Sulfur Dioxide Emissions without Triggering NSR (tons per year)

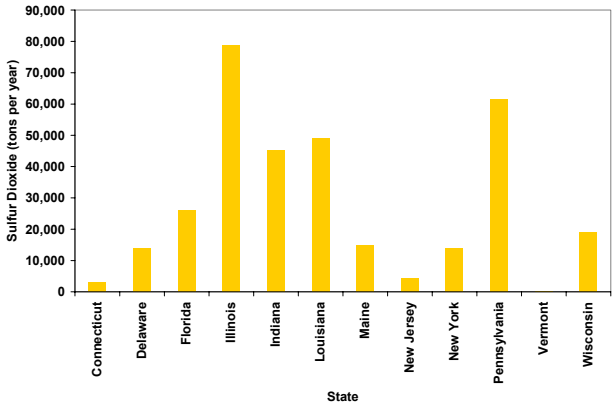


Figure 3.4 Additional Allowable Increases in VOC Emissions without Triggering NSR (tons per year)

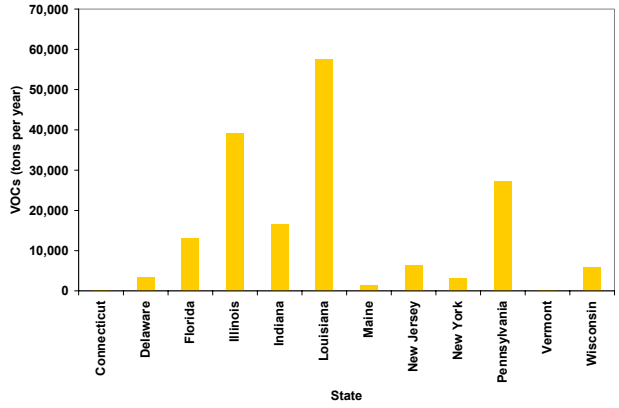
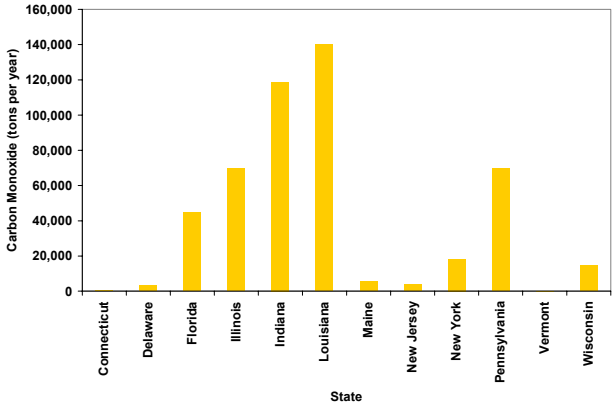


Figure 3.5 Additional Allowable Increases in Carbon Monoxide Emissions without Triggering NSR (tons per year)



Section 4

Explanation of Methodology—Permit Analyses

The Clean Air Act requires companies to obtain New Source Review (NSR) permits when they propose to physically modify their facilities, if such modifications would significantly increase their emissions of one or more criteria pollutants. The U.S. Environmental Protection Agency has changed the methodology for calculating emissions baselines for the purpose of determining whether or not a modification triggers NSR. Critics have argued that these changes will make it easier to increase pollution. EPA has responded by saying that even if NSR is not applicable to a facility because of the new rule, other federal air pollution control requirements will usually prevent such increases.[x]

The Environmental Integrity Project (EIP) and the Council of State Governments/Eastern Regional Conference (CSG/ERC) have evaluated EPA's claim by examining specific permits to determine whether facilities are in fact subject to other federally enforceable restrictions that would limit pollution increases when the new rule relaxes the applicability of NSR. This document explains how EIP/CSG/ERC selected permits and conducted that analysis.

A first step in determining whether emissions will increase as a result of a modification is to determine the baseline emissions prior to the modification. Under the NSR rule finalized December 31, 2002 (which we refer to as "the new rule"), a facility other than a power plant may use its average emissions in any consecutive 24-month period during the *ten-year period* prior to the modification to establish its baseline. The old rule required facilities to use the *two-year period immediately prior to the modification* unless the permitting agency determined that another time period was more representative of actual operations. The old rule remains in place for power plants and for that reason they were not included in our inquiry.

Assuming that a facility will seek to remain below the threshold that would trigger the NSR requirement, the question is then how much it can increase its emissions without triggering NSR. Calculating a facility's baseline based on a ten-year period, as opposed to the most recent two-year period, will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

The graphic below (Figure 4.1) illustrates the application of the new rule as compared to the old rule:

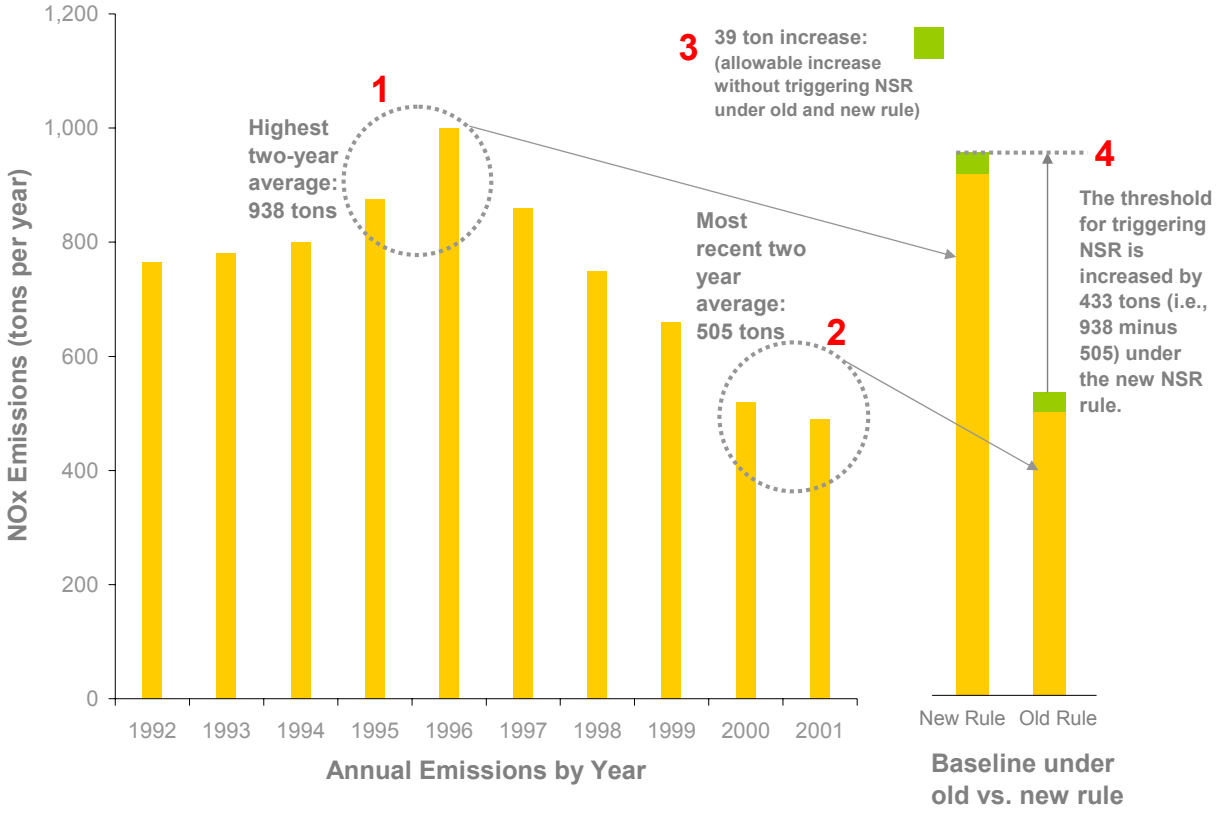


Figure 4.1 Illustration of Baseline Calculations

We test EPA's contention with reference to each of several actual facilities by:

- Calculating the baseline for emissions from the facility, or from a relatively significant process unit or group of similar process units (which we refer to here as the "significant unit"), for the pollutants for which the facility is a major source, under the new rule as compared to the old rule;
- Calculating the limits on emissions from the facility, or from a significant unit, on the identified pollutants, under the new rule as compared to the old rule;
- Calculating the amount by which the facility, or a significant unit, could increase its emissions of the identified pollutants, under the new rule as compared to the old rule;
- Identifying any other federally enforceable air pollution programs that would prohibit the facility or the significant unit from increasing its emissions to the level allowed under the new rule.

When we selected a significant unit rather than analyzing the entire facility, we did so for two reasons. First, modifications that involve NSR generally involve a single unit or group of units, rather than an entire facility, making this approach more realistic. Second, facilities usually involve units of different types, with each type subject to different limitations imposed by the "other" federal air pollution programs we are examining. This makes it difficult to determine the limits for each pollutant for the facility as a whole. It also means that it will generally be necessary to single out a unit or units of a particular type, in order to examine the universe of potentially applicable limitations on emissions.

We add a caveat with respect to this approach, however: the baseline data that are available apply facility-wide. Where sufficient unit-level historical data are available, we have assigned a baseline to the significant unit using that data. Where such data are not available, we have apportioned the baseline with reference to the unit's proportionate capacity relative to the facility as a whole.

More specifically, we have proceeded as outlined below.

1. We have chosen an actual facility for review.

We have chosen facilities for permit review by determining, first, whether they fall within one of the industry sectors we have selected for this purpose: chemical manufacturing, pulp and paper, and petroleum refining. We then reviewed our emissions inventory analysis, to determine whether the facility's emissions baseline for one or more pollutants for which it is a major source is likely to be higher under the new rule than under the old rule. Finally, we chose a facility only if we were able to obtain a copy of its Title V permit.

2. We have calculated the amount by which the facility or a significant unit could increase its emissions of each pollutant for which it is a major source without triggering NSR, under the new rule as compared to the old rule.

The federal NSR program applies to existing "major" sources (as well as to newly constructed major facilities), that is, sources that are above a certain size for particular pollutant emissions. A source can be major for one pollutant but not for another. Also, only modifications (defined in terms of annual tonnage) that result in "significant" increases trigger NSR.[xi] The size of a facility for applicability purposes, and the size of the significance levels, both vary by the attainment/nonattainment status of the area where it is located. The new rule did not change the applicability thresholds or the significance levels.

For each facility, we have included in the analysis significant increases in criteria pollutants and also volatile organic compounds (VOCs), but only if the facility is a major source for one or more of these pollutants.

We have done the analysis for each applicable pollutant emitted by the facility or the significant unit as follows:

a. To calculate baseline emissions under the old rule, we assumed use of the average emissions from the facility or the significant unit during the most recent two years for which we have data. We then added an amount just below the significance level for that pollutant. This gave the emissions level to which the facility's or the significant unit's emissions of the pollutant could increase under the old rule in the event of a modification without triggering NSR.

b. To calculate baseline emissions under the new rule, we assumed use of the average emissions from the facility or from the significant unit during the consecutive 24-month period with the highest emissions during the last ten years. If the period for which we have data is shorter than ten years, we used that period (but never less than six years). We again added an amount just below the appropriate significance level. This gave the emissions level to which the facility's or the significant unit's emissions of the pollutant could increase under the new rule in the event of a modification without triggering NSR.

c. Where we used baseline emissions for a significant unit rather than the facility as a whole, we assigned the baseline based on unit-specific historical data if available; otherwise, we apportioned the baseline based on the unit's proportionate capacity as compared to the capacity of the entire facility.

d. We then calculated the percentage increase by which emissions of the pollutant from the significant unit or the facility could increase without triggering NSR under the new rule as compared to the old rule.

3. We have identified other federally enforceable air pollution programs, if any, that would prohibit the facility or the significant unit from emitting at the new levels.

- We have assumed the new rule's higher baseline and the correspondingly greater amounts of each of the identified pollutants that the facility or the significant unit would be allowed to emit in light of its new baseline.
- We then asked what other federal air pollution programs, if any, could apply, *regardless of whether or not a modification took place*. For example:

    - For units to which the New Source Performance Standards (NSPS) could be applicable, we have assumed a modification that would trigger the NSPS (unless the likelihood of the type of modification that would trigger the NSPS was, in our judgment, too remote, in which case we identified the relevant considerations). Given the difference in the definition of "modification" for NSPS purposes, detailed below, it is in fact unlikely that a modification would trigger the NSPS but not NSR.
    - The NOx State Implementation Plan (SIP) call could apply to the facility's NOx emissions if the facility is in a state covered by the SIP call and is a facility that is subject to the SIP call. We have indicated whenever that is the case. (It is not possible to take the analysis further with respect to the effect of the SIP call, because of the fact that it allows trading.)

- Maximum Achievable Control Technology (MACT) standards imposed on hazardous air pollutants by section 112 of the Clean Air Act may apply to VOC or to PM emissions.
- If there are operating restrictions on the facility or the significant unit, we have assumed that they will remain in place. There are circumstances in which this assumption is questionable (e.g., a limit on hours of operation taken to avoid triggering NSR under the old baseline, which in theory might be modified to reflect the new baseline). However, we have erred on the side of making this analysis more rather than less conservative.

This list is provided only by way of example; it is not inclusive. We have considered specific facilities and have examined their permits to determine whether there are other potentially applicable emissions limits.

- We compared those other emissions limits to the limits that would be imposed on the facility or the significant unit as a result of use of the new rule's emissions baseline, to determine whether the emissions limits imposed by the other program would prohibit the emissions at the levels allowed by the new rule.

We emphasize one point with regard to the applicability of the NSPS. On some occasions a modification that triggers the NSPS will indeed hold emissions below the levels allowed by the new rule. The important point, however, is that *modifications are unlikely to trigger the NSPS even if they trigger NSR*, because of the differences between NSR applicability and NSPS applicability in these respects: (1) the NSPS apply only to certain regulated categories of sources (rather than to all stationary sources above a certain size); (2) the NSPS define modification with reference to an hourly rate as opposed to a yearly tonnage increase; (3) the NSPS apply to "reconstruction" of existing sources, which is defined as the replacement of components costing more than 50 percent of the fixed capital cost that would be required to construct a comparable new facility. Either a rate increase or a reconstruction can bring the NSPS into play, but these types of modifications to a facility are more unusual than NSR-type modifications (which need only result in a tonnage increase in pollution and be non-routine). In short, the NSPS might limit emissions *if* they applied, and for that reason we are hypothesizing a modification that would trigger the NSPS in order to be conservative, but such a modification is in fact a relatively unlikely event.

Section 5
American Paper Mills of Vermont, Gilman, Essex County, VT —Permit Review

As is discussed in the Explanation of Methodology, which accompanies this permit analysis, the New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as the "new rule") changes the calculation of emissions baselines for the purpose of determining whether or not the modification of a facility triggers NSR. The new approach to baseline calculation will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

Here, we analyze the impact of that rule change on the permissible emissions levels of the American Paper Mills of Vermont (American Paper Mills), and identify any other federally enforceable air pollution programs that would prohibit the facility from emitting at the new levels.

Background Information

Industry Type: Paper mill

The facility is a major source for NOx, CO and PM

Area Designations: Attainment for CO and PM

Unclassified for ozone (however, in the northeast Ozone Transport Region, ozone precursors, NOx and VOCs, are regulated as moderate nonattainment)

Primary Emissions Unit: Zurn Wood Chip primary boiler rated for 180 mmBtu/hr[xii]

Table 5.1 Summary of emissions limits applicable to American Paper Mills under old and new rules, and under applicable New Source Performance Standards (NSPS)

Permit Limits	**NOx (tpy)**	**CO (tpy)**	**PM (tpy)**
Baseline under old rule	70 (average of 2000 and 2001)	538 (average of 2000 and 2001)	245 (average of 2000 and 2001)
Limits* under old rule	109	637	269
Baseline under new rule	156 (average of 1993 and 1994)	667 (average of 1997 and 1998)	290 (average of 1994 and 1995)
Limits* under new rule	195	766	314
Percent increase in emissions allowable under new versus old rule	79%	20%	17%
NSPS limits	not applicable	not applicable	78 (0% increase allowable)

* The limits reflect the addition of the amounts by which emissions can increase without reaching the significance level for each of the enumerated pollutants. The significance levels we use are 40 tons for NOx (although a lower significance level actually applies in severe ozone nonattainment areas), 100 tons for CO, and 25 tons for PM.

Explanation

As is detailed in the accompanying Explanation of Methodology, the "baseline under old rule" in the table is calculated using the average emissions during the most recent two years. The "baseline under new rule" is calculated using the average emissions in the highest consecutive 24-month period during the last ten years (or fewer years if data for a ten-year period are unavailable). The "limits" under both the old and new rule include the addition of amounts just below the applicable "significance" levels, i.e., the amount by which the facility can increase emissions above its baseline in the event of a modification without triggering NSR.[xiii]

If we assume the unlikely scenario of a modification that would trigger the New Source Performance Standards (NSPS) but not NSR (unlikely because of the difference in the definition of "modification" for NSPS and NSR purposes), the only other applicable federal regulation would be the NSPS for medium-sized industrial boilers, at 40 CFR 60 Subpart Db,[xiv] for wood-

burning sources. These contain standards for PM, but not for NOx and CO. The NSPS for PM is 0.1 lb/mmBtu, which would limit the facility's emissions of PM to 78 tpy (calculated on the basis of potential emissions, assuming operation for 8,760 hours per year), thereby preventing the 17 percent emissions increase for PM that would occur under the new NSR rule. However, recall (from the Explanation of Methodology) that a modification only triggers the NSPS if it increases the facility's hourly emission rate of the pollutants in question, or is a "reconstruction," defined as the replacement of components costing more than 50 percent of the fixed capital cost that would be required to construct a comparable new facility.

We have examined the following additional federally enforceable air pollution requirements. None is applicable to American Paper Mills:

- Reasonably Available Control Requirements (RACT) do not apply because Vermont is in attainment for CO and PM, and is regulated as in attainment for NOx for RACT purposes.
- Vermont is not in the NOx SIP call.
- Vermont is a signatory to the Ozone Transport Commission Memorandum of Understanding (OTC MOU), but this facility is not subject to the budget program established pursuant to the OTC MOU.
- There are no Maximum Available Control Technology (MACT) standards applicable to paper mills (as opposed to Kraft pulp mills).
- Vermont uses the federal "significance" levels in determining NSR applicability and the associated requirements for emissions controls. Vermont's state preconstruction requirements for modifications that result in emissions increases below "significance" levels do not include any control requirements. Therefore, neither Vermont's NSR program nor its state preconstruction permitting program would limit emissions that would be allowed under the new rule.

Conclusion

Under the new rule, American Paper Mills would be allowed to increase its NOx, CO and PM emissions relative to the old rule by 79 percent, 20 percent and 17 percent, respectively, without triggering NSR. No other federally enforceable provisions would prevent emissions of NOx and CO at the higher levels allowed by the new rule. In the unlikely event that a modification triggered the NSPS, only the facility's emissions of PM would be prevented from increasing under the new rule.

Section 6

BP Amoco Chemical Corporation/Joliet Plant, Channahon Twp., Will County, IL—Permit Review

As is discussed in the Explanation of Methodology, which accompanies this permit analysis, the New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new rule") changes the calculation of emissions baselines for the purpose of determining whether or not the modification of a facility triggers NSR. The new approach to baseline calculation will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

Here, we analyze the impact of that rule change on the permissible emissions levels of selected units at the BP Amoco Chemical Corporation—Joliet Plant (BP Amoco Chemical), located in Illinois, and identify any other federally enforceable air pollution programs that would prohibit these units from emitting at the new levels.

Background Information

Industry Type: Synthetic organic chemical manufacturing

The facility is a major source for NOx, PM, CO and VOCs[xv]

Area Designations: Severe nonattainment for ozone (the criteria pollutant for which NOx and VOCs are regulated); attainment for PM and CO

Primary Emissions Unit: Maleic anhydride unit

Table 8.1 Summary of emissions limits applicable to BP Amoco Chemical under old and new rules, and under other applicable federal requirements

Permit Limits	**VOCs (tpy)**
Baseline for facility under old rule	302 (average of 2000 and 2001)
Apportioned baseline for maleic anhydride unit under old rule	118
Apportioned limits* for maleic anhydride unit under old rule	157
Baseline for facility under new rule	599 (average of 1993 and 1994)
Apportioned baseline for maleic anhydride unit under new rule	180
Apportioned limits* for maleic anhydride unit under new rule	219
Percent increase in emissions from maleic ahydride unit allowable under new versus old rule	39%
Current preconstruction permitting limits[xvi]	180 (15% increase allowable)
MACT limits on maleic anhydride unit	180 (15% increase allowable)
NSPS limits on maleic anhydride unit	180 (15% increase allowable)

* The limits reflect the addition of the amount by which emissions can increase without reaching the significance level for the pollutant. As discussed in the Explanation of Methodology, the significance level for VOCs is 25 tons in severe ozone nonattainment areas, but throughout we use the usual 40 tons, which applies in less serious ozone nonattainment areas.

Explanation

As is detailed in the accompanying Explanation of Methodology, the "baseline for facility under the old rule" in the table is calculated using the average emissions from the facility during the most recent two years. The "baseline under new rule" is calculated using the average emissions during the highest consecutive 24-month period during the last ten years (or fewer years if data for a ten-year period are unavailable).

As we also discuss in the Explanation of Methodology, where a facility contains a large number of emissions units, which is the case for BP Amoco Chemical, we have selected a relatively significant process unit or group of similar process units for evaluation, and have either assigned (where sufficient historical data are available) or apportioned to that unit(s) a share of total facility emissions in order to estimate the emissions baseline for the unit(s). Here, we have selected BP Amoco Chemical's maleic anhydride unit for analysis, because it is the facility's largest VOC emissions source.

When dealing with combustion sources, we have used heat input as a basis for apportioning the baseline to the group of process units selected. However, BP Amoco Chemical's maleic

anhydride unit is not a combustion source, and heat input is not an appropriate basis for apportioning the baseline. Instead we have used the permitted potential to emit of BP Amoco Chemical's sources of VOC emissions (*see* footnote 2) in order to apportion total facility emissions.

Apportioning the baseline for the maleic anhydride unit presents a particular complexity. The permitted potential to emit that appears in footnote 2 is applicable to apportioning the baseline under the old rule (i.e., for 2000 and 2001). However, the facility's VOC emissions dropped by 164 tons in 1997, on account of the delisting of methyl acetate as a photochemically reactive VOC. Therefore, in order to have comparable baselines and apportioned baselines under the old and the new rule, we have subtracted 164 tons from the 1993/1994 baseline. Using that approach, the maleic anhydride unit accounts for 39 percent of the facility's VOC emissions under the old rule, and 30 percent of the facility's VOC emissions under the new rule. We have used those figures to apportion the facility's baselines to the maleic anyhydride unit under the old rule and the new rule, respectively.

The "limits" under both the old and new rule include the addition of an amount just below the applicable "significance" level, i.e., the amount by which the maleic anhydride unit can increase emissions above its baseline in the event of a modification without triggering NSR.

This brings us to one additional complexity. As we have said, earlier permit limits taken by BP Amoco Chemical in order to avoid preconstruction review would hold VOC emissions from the maleic anhydride unit at a level lower than the new rule would otherwise permit. Without these permit limits, the unit's VOC emissions could increase by 39 percent under the new rule. In light of the existing permit limit of 180 tpy for VOCs derived from the New Source Performance Standard (NSPS) discussed below, the unit's VOC emissions are held to an increase of 15 percent. As we noted in the Explanation of Methodology, where there are operating restrictions on the facility or unit being analyzed, we have assumed that they will remain in place.

The Maximum Achievable Control Technology (MACT) limit imposed on VOC emissions by the Hazardous Organic NESHAP or "HON" rule at 40 CFR 63 Subpart G applies to this unit. However, the limits it imposes are the same as the NSPS, to which the unit is already subject by virtue of its preconstruction permitting limit.

The only other applicable federal regulation is the NSPS for Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes, at 40 CFR 60 Subpart III. However, based on modifications to the facility in 1998, the maleic anhydride unit is *already* regulated for VOCs by this provision.[xvii] The 180-ton permit limit for the unit appears to have been calculated on the basis of the 98 percent control (or 20 ppm) requirement of the SOCMI rule. Depending on the type of modification that the facility might undertake in the future, it is possible that other NSPS could come into play; however, no other NSPS is currently applicable. Moreover, it is unlikely that a modification would trigger an NSPS but not NSR (unlikely because of the difference in the definition of "modification" for NSPS and NSR purposes[xviii]).

We have examined the following additional federally enforceable air pollution requirements. None is applicable to the maleic anhydride unit at BP Amoco Chemical:

- The area in which BP Amoco Chemical is located is in severe nonattainment for ozone, and the facility's permit limits already reflect Reasonably Available Control Requirements (RACT) for VOCs.

- Although Illinois is in the NOx SIP call area, BP Amoco is not subject to the SIP call.
- Illinois is not a signatory to the Ozone Transport Commission Memorandum of Understanding (OTC MOU).
- Illinois uses the federal "significance" levels in determining NSR applicability and the associated requirements for emissions controls. Illinois' state preconstruction requirements for modifications that result in emissions increases below "significance" levels do not include any control requirements. Therefore, neither Illinois' NSR program nor its state preconstruction permitting program would limit emissions that would be allowed under the new rule.

Conclusion

The maleic anhydride unit at BP Amoco Chemical would be allowed to increase its VOC emissions by 39 percent under the new rule as compared to the old rule. However, it would not be allowed to take full advantage of that flexibility, by virtue of the fact that it has already triggered an NSPS limit of 180 tpy on its VOC emissions (which is the same as the VOC MACT limit). The result is that the unit would only be able to increase its VOC emissions by 15 percent before reaching the existing permit limit.

No other federally enforceable provisions would further constrain VOC emissions from the unit.

Section 7

ConocoPhillips Tosco Trainer Refinery, Trainer, Delaware County, PA —Permit Review

As is discussed in the Explanation of Methodology, which accompanies this permit analysis, the New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new

rule") changes the calculation of emissions baselines for the purpose of determining whether or not the modification of a facility triggers NSR. The new approach to baseline calculation will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

Here, we analyze the impact of that rule change on the permissible emissions levels of a selected unit at the ConocoPhillips Tosco Trainer Refiner (Trainer), located in Pennsylvania, and identify any other federally enforceable air pollution programs that would prohibit this unit from emitting at the new levels.

Background Information

Industry Type: Petroleum refinery

The facility is a major source for NOx, SO_2, CO, PM and VOCs

Area Designations: Severe nonattainment for ozone (the criteria pollutant for which NOx and VOCs are regulated); attainment for PM, SO_2 and CO[xix]

Primary Emissions Units: Boiler #7

Table 9.1 Summary of emissions limits applicable to Trainer under old and new rules, and under other applicable federal requirements

Permit Limits	NOx (tpy)	SO_2 (tpy)	PM (tpy)
Baseline for facility under old rule	2151 (average of 1999 and 2000)	1666 (average of 1999 and 2000)	213 (average of 1999 and 2000)
Assigned baseline for boiler #7 under old rule	366	283	30
Assigned limits* for boiler #7 under old rule	405	322	54
Baseline for facility under new rule	2339 (average of 1998 and 1999)	4429 (average of 1992 and 1993)	220 (average of 1998 and 1999)
Assigned baseline for boiler #7 under new rule	398	753	31
Assigned limits* for boiler #7 under new rule	437	792	55
Percent increase in emissions from boiler #7 allowable under new versus old rule	8%	146%	2%
NSPS limits on boiler #7	440 (no limit on allowable increase)	587 (82% increase allowable)	147 (no limit on allowable increase)
State preconstruction permitting program	could potentially limit emissions	could potentially limit emissions	could potentially limit emissions

*The limits reflect the addition of the amount by which emissions can increase without reaching the significance level for the pollutant. The significance levels we use are 40 tpy for NOx (although a lower significance level actually applies in severe ozone nonattainment areas), 40 tpy for SO_2 and 25 tpy for PM.

Explanation

As is detailed in the accompanying Explanation of Methodology, the "baseline for facility under the old rule" in the table is calculated using the average emissions from the facility during the most recent two years. The "baseline under new rule" is calculated using the average emissions during the highest consecutive 24-month period during the last ten years (or fewer years if data for a ten-year period are unavailable).

As we also discuss in the Explanation of Methodology, where a facility contains a large number of emissions units, which is the case for Trainer, we have selected a relatively significant process unit or group of similar process units for evaluation, and have either assigned (where sufficient historical data are available) or apportioned to that unit(s) a share of total facility emissions in order to estimate the emissions baseline for the unit(s).

Here, we have selected Trainer's boiler #7 for analysis, because it has the highest emissions of any of the facility's conventional combustion sources, and the second highest of any of the facility's emissions sources. In this case, there are unit-specific data for 1999 for actual emissions of NOx, SO_2 and PM for combustion sources, and we have used that information to assign a baseline to boiler #7 rather than apportioning the baseline based on an estimate of its share of total facility emissions. We have omitted CO from our analysis because of the lack of comparable information. Based on the actual emissions, we have assigned boiler #7 pollutant-specific portions of the entire facility's baseline as follows:

NOx	17 percent
SO_2	17 percent
PM	14 percent

The "limits" under both the old and new rule include the addition of an amount just below the applicable "significance" levels, i.e., the amount by which boiler #7 can increase emissions above its baseline in the event of a modification without triggering NSR.

The area in which Trainer is located is in severe nonattainment for ozone, and according to the state, became subject to NOx RACT no later than 1996. Since the facility would use a 1998/1999 baseline under the new rule, the new rule baseline would reflect RACT applicability (as, obviously, would the old rule's 1999/2000 baseline). Because both baselines already reflect NOx RACT, those requirements would not prevent the 8 percent increase in NOx emissions that the new rule would allow.

There are no current Maximum Available Control Technology (MACT) standards applicable to boiler #7. There are *proposed* MACT standards for industrial boilers (40 CFR 63 Subpart DDDDD). Unlike many MACT standards, the proposal breaks "new" and "existing" sources into two categories. The Trainer boiler under consideration here burns liquid fuel and falls into the "existing" category, for which the proposed rule would not impose a standard. In order to qualify as a "new" boiler for purposes of the MACT proposal, the Trainer unit would have to undergo a "reconstruction," which corresponds to the NSPS definition of "reconstruction" (and, as we indicate below, is unlikely).

If we assume the unlikely scenario of a modification that would trigger the NSPS but not NSR (unlikely because of the difference in the definition of "modification" for NSPS and NSR purposes), the only other applicable federal regulation would be the NSPS for medium-sized industrial boilers, at 40 CFR 60 Subpart Db. It contains standards for NOx, SO_2 and PM.[xx] The limits this rule would impose (converted from rate to potential annual emissions assuming the "worst case" of burning refinery oil) are:

NOx	440 tpy
SO_2	587 tpy
PM	147 tpy

These limits would not prevent the 8 percent emissions increase for NOx or the 2 percent emissions increase for PM that would occur under the new NSR rule, but would hold the 146 percent increase in SO_2 emissions that would occur under the new rule to 82 percent. However, recall (from the Explanation of Methodology) that a modification only triggers the NSPS if it increases the facility's hourly emissions rate of the pollutants in question, or is a "reconstruction," defined as the replacement of components costing more than 50 percent of the fixed capital cost that would be required to construct a comparable new facility.

Pennsylvania uses the federal "significance" levels in determining federal NSR applicability and the associated requirements for emissions controls. Therefore, Pennsylvania's federal NSR program would not limit emissions that would be allowed under the new rule. Pennsylvania's state preconstruction requirements for modifications that result in emissions increases below "significance" levels are federally enforceable, and refer to "BACT-level" controls, which are determined on a case-by-case basis. If Pennsylvania's state preconstruction permitting requirements are triggered by a modification, they could limit emissions that would be allowed under the new rule. Of course, this is possible only if the state preconstruction permitting program is not preempted by the federal NSR program.

We have examined the following additional federally enforceable air pollution requirements. None is applicable to boiler #7 at Trainer:

- Although Pennsylvania is in the NOx SIP call area and Trainer is subject to the SIP call, NOx allowances can be traded and, therefore, their allocation does not impose actual limits on unit or facility emissions. Additionally, NOx allowance allocations are made for the ozone season only, rather than on an annual basis.
- Pennsylvania is a signatory to the Ozone Transport Commission Memorandum of Understanding (OTC MOU) and Trainer is subject to the budget program established pursuant to the OTC MOU. However, as for the NOx SIP call, the OTC MOU does not impose actual limits on unit or facility emissions and applies only on a seasonal basis.

Conclusion

Boiler #7 at Trainer would be allowed to increase its NOx emissions by eight percent, its SO_2 emissions by 146 percent, and its PM emissions by two percent under the new rule as compared to the old rule, without triggering NSR. In the unlikely event that a modification triggered the applicable NSPS, only the facility's emissions of SO_2 would be prevented from increasing by the full amount that the new rule would allow. In that event, the unit's emissions of SO_2 under the new rule could increase by 82 percent, rather than by 146 percent.

An NSR-type modification associated with smaller emissions increase could trigger Pennsylvania's state preconstruction requirements, which are federally enforceable. These are determined on a case-by-case basis, and are impossible to quantify in the abstract, but it is possible that they would limit emissions that would be allowed under the new rule assuming that they are not preempted by the federal NSR program.

No other current federally enforceable provisions would prevent emissions from boiler #7 at the higher levels allowed by the new rule.

Section 8

Degussa Goldschmidt Chemical Corporation, Janesville, Rock County, WI—Permit Review

As is discussed in the Explanation of Methodology, which accompanies this permit analysis, the New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new rule") changes the calculation of emissions baselines for the purpose of determining whether or not the modification of a facility triggers NSR. The new approach to baseline calculation will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

Here, we analyze the impact of that rule change on the permissible emissions levels of selected units at the Degussa Goldschmidt Chemical Corporation (Goldschmidt), located in Wisconsin, and identify any other federally enforceable air pollution programs that would prohibit these units from emitting at the new levels.

Background Information

Industry Type: Chemical manufacturing

The facility is a major source for VOCs[xxi]

Area Designations: Attainment for ozone (the criteria pollutant for which VOCs are regulated)

Primary Emissions Units: Seven batch chemical reactors

Table 7.1 Summary of emissions limits applicable to Goldschmidt under old and new rules, and under other applicable federal requirements

Permit Limits	**VOCs (tpy)**
Baseline for facility under old rule	139 (average of 2000 and 2001)
Apportioned baseline for batch chemical reactors under old rule	122
Apportioned limits* for batch chemical reactors under old rule	161
Baseline for facility under new rule	214 (average of 1996 and 1997)
Apportioned baseline for batch chemical reactors under new rule	188
Apportioned limits* for batch chemical reactors under new rule	227
Percent increase in emissions from batch chemical reactors allowable under new versus old rule	41%

*The limits reflect the addition of the amount by which emissions can increase without reaching the significance level for the pollutant. The significance level we use is 40 tons for VOCs (although a lower significance level actually applies in severe ozone nonattainment areas).

Explanation

As is detailed in the accompanying Explanation of Methodology, the "baseline for facility under the old rule" in the table is calculated using the average emissions from the facility during the most recent two years. The "baseline under new rule" is calculated using the average emissions during the highest consecutive 24-month period during the last ten years (or fewer years if data for a ten-year period are unavailable).

As we also discuss in the Explanation of Methodology, where a facility contains a large number of emissions units, which is the case for Goldschmidt, we have selected a relatively significant process unit or group of similar process units for evaluation, and have either assigned (where sufficient historical data are available) or apportioned to that unit(s) a share of total facility emissions in order to estimate the emissions baseline for the unit(s). Here, we have selected Goldschmidt's seven batch chemical reactors for analysis, because they are the facility's largest VOC emissions sources.

When dealing with combustion sources, we have used heat input as a basis for apportioning the baseline to the group of process units selected. However, Goldschmidt's batch chemical reactors are not combustion sources, and heat input is not an appropriate basis for apportioning the baseline. Instead we have used the permitted potential to emit of Goldschmidt's sources of VOC

emissions in order to apportion the facility emissions.[xxii] On that basis, the seven batch chemical reactors account in the aggregate for 88 percent of the facility's VOC emissions, which is the figure we have used to apportion the facility's baseline to the reactors.

The "limits" under both the old and new rule include the addition of an amount just below the applicable "significance" level, i.e., the amount by which the batch chemical reactors can increase emissions above their baseline in the event of a modification without triggering NSR.

There are no Maximum Available Control Technology (MACT) standards applicable to the batch chemical reactors at manufacturing facilities that produce the chemicals that Goldschmidt manufactures. The facility in it current configuration does have the capability to produce chemicals that could trigger 40 CFR 63 Subpart PPP for Polyether Polyols Production, but it does not currently do so. There is also a *proposed* MACT standard (at 40 CFR 63 Subpart FFFF) addressing miscellaneous organic chemicals not otherwise regulated under existing MACT standards. This regulation's "catch-all" provision that could make it applicable to Goldschmidt, although, given its approach (e.g., regulating work practices), it is not possible to translate its effect into a limitation on tons emitted.

We have examined the following additional federally enforceable air pollution requirements. None is applicable to the batch chemical reactors at Goldschmidt:

- Reasonably Available Control Requirements (RACT) do not apply because the area of Wisconsin in which Goldschmidt is located is in attainment for ozone (the pollutant through which VOCs are regulated for RACT purposes).
- Wisconsin is not in the NOx SIP call.
- Wisconsin is not a signatory to the Ozone Transport Commission Memorandum of Understanding (OTC MOU).
- There are no NSPS applicable to batch chemical reactors at chemical manufacturing facilities that produce the chemicals that Goldschmidt manufactures.
- There is a state hazardous air pollution rule that addresses approximately 450 chemicals and is federally enforceable under certain circumstances. The permit regulates fenceline concentrations, however, which would not necessarily translate into a reduction in emissions.
- Wisconsin uses the federal "significance" levels in determining NSR applicability and the associated requirements for emissions controls. Wisconsin's state preconstruction requirements for modifications that result in emissions increases below "significance" levels do not include any control requirements. Therefore, neither Wisconsin's NSR program nor its state preconstruction permitting program would limit emissions that would be allowed under the new rule.

Conclusion

Under the new rule, the seven batch chemical reactors at Goldschmidt would be allowed to increase their VOC emissions relative to the old rule by 41 percent without triggering NSR.

There is a *proposed* MACT standard pending that, when finalized, could conceivably limit Goldschmidt's emissions; however, given its approach, it is not clear that it would do so. There is also a MACT standard in place that could limit emissions from Goldschmidt's batch chemical reactors if the facility manufactured different chemicals, but it is not applicable given the chemicals the facility currently produces. Wisconsin's hazardous air pollution rule is federally enforceable under certain circumstances, but would not necessarily result in a reduction in emissions in light of the fact that it regulates fenceline concentrations.

No other current federally enforceable provisions would prevent emissions of VOCs at the higher levels allowed by the new rule.

Section 9

Stone Container Corporation, Panama City, Bay County, FL—Permit Review

As is discussed in the Explanation of Methodology, which accompanies this permit analysis, the New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new rule") changes the calculation of emissions baselines for the purpose of determining whether or not the modification of a facility triggers NSR. The new approach to baseline calculation will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

Here, we analyze the impact of that rule change on the permissible emissions levels of selected units at the Stone Container Corporation (Stone Container), located in Florida, and identify any other federally enforceable air pollution programs that would prohibit these units from emitting at the new levels.

Background Information

Industry Type: Kraft pulp mill

The facility is a major source for NOx, SO_2 and PM

Area Designations: Attainment for ozone (the criteria pollutant for which NOx is regulated), SO_2 and PM

Primary Emissions Units: Two recovery boilers

Table 6.1 Summary of emissions limits applicable to Stone Container under old and new rules, and under other applicable federal requirements

Permit Limits	NOx (tpy)	SO_2 (tpy)	PM (tpy)
Baseline for facility under old rule	1,848 (average of 2000 and 2001)	3,603 (average of 2000 and 2001)	1,005 (average of 2000 and 2001)
Apportioned baseline for recovery boilers under old rule	1,016	1,982	553
Apportioned limits* for recovery boilers under old rule	1,055	2,021	577
Baseline for facility under new rule	3,635 (average of 1996 and 1995)	4,419 (average of 2000 and 1999)	1,005 (average of 2000 and 2001)
Apportioned baseline for recovery boilers under new rule	1,999	2,430	553
Apportioned limits* for recovery boilers under new rule	2,038	2,469	577
Percent increase in emissions from recovery boilers allowable under new versus old rule	93%	22%	0%
MACT limits on recovery boilers	not applicable	not applicable	591 (no limit on allowable increase)
NSPS limits on recovery boilers	not applicable	not applicable	591 (no limit on allowable increase)

* The limits reflect the addition of the amounts by which emissions can increase without reaching the significance level for each of the enumerated pollutants. The significance levels we use are 40 tons for NOx (although a lower significance level applies in severe non-attainment areas), and SO_2, and 25 tons for PM.

Explanation

As is detailed in the accompanying Explanation of Methodology, the "baseline for facility under the old rule" in the table is calculated using the average emissions from the facility during the most recent two years. The "baseline under new rule" is calculated using the average emissions during the highest consecutive 24-month period during the last ten years (or fewer years if data for a ten-year period are unavailable).

As we also discuss in the Explanation of Methodology, where a facility contains a large number of emissions units, which is the case for Stone Container, we have selected a relatively significant process unit or group of similar process units for evaluation, and have apportioned to that unit(s) a share of total facility emissions in order to estimate the emissions baseline for the unit(s). Here, we have selected Stone Container's two recovery boilers for analysis, because they are the facility's largest emissions sources. The recovery boilers account in the aggregate for 55 percent

of the facility's heat input, and we have apportioned the facility's baseline to those boilers on that basis.

The "limits" under both the old and new rule include the addition of an amount just below the applicable "significance" levels, i.e., the amount by which the recovery boilers can increase emissions above their baseline in the event of a modification without triggering NSR. In this case, the PM limits for the units are the same under the old and the new rule, because the 24-month period with the highest average emissions during the last ten years is the most recent two-year period. This is not true for NOx and SO_2, for which the limits change substantially because of the increase in their baselines.

The Maximum Achievable Control Technology (MACT) limit imposed by 40 CFR 63 Subpart MM on PM from recovery boilers at Kraft pulp mills is 0.044 gr/dscf, which limits the units' emissions of PM to 591 tpy (calculated on the basis of potential emissions, assuming operation for 8,760 hours per year). The units' apportioned baseline reflects the fact that they are holding their emissions below that level. There is no MACT limit on the emissions of NOx and SO_2 from these units.

The only other potentially applicable federal regulation is the New Source Performance Standards (NSPS) for Kraft pulp mills, at 40 CFR 60 Subpart BB. Like the applicable MACT regulation, these contain standards for PM, but not for NOx and SO_2. The NSPS for PM is the same as the MACT standard for PM. Notwithstanding that the MACT and NSPS standards are identical for the recovery boilers, there is an important difference in their applicability. The NSPS for PM will not apply unless there is a modification that triggers it, whereas the MACT standard is applicable without a modification. Moreover, it is unlikely that a modification would trigger the NSPS but not NSR (unlikely because of the difference in the definition of "modification" for NSPS and NSR purposes[xxiii]).

We have examined the following additional federally enforceable air pollution requirements. None is applicable to the recovery boilers at Stone Container:

- Reasonably Available Control Requirements (RACT) do not apply because Florida is in attainment for ozone, SO_2, and PM.
- Florida is not in the NOx SIP call.
- Florida is not a signatory to the Ozone Transport Commission Memorandum of Understanding (OTC MOU).
- Florida uses the federal "significance" levels in determining NSR applicability and the associated requirements for emissions controls. Florida's state preconstruction requirements for modifications that result in emissions increases below "significance" levels do not include any control requirements. Therefore, neither Florida's NSR program nor its state preconstruction permitting program would limit emissions that would be allowed under the new rule.

Conclusion

Under the new rule, the two recovery boilers at Stone Container would be allowed to increase their NOx and SO_2 emissions relative to the old rule by 93 percent and 22 percent, respectively, without triggering NSR. There is no NOx or SO_2 MACT standard for Kraft pulp mills, and no other applicable federally enforceable limit on emissions of these pollutants. Thus, no other federally enforceable provisions would prevent emissions of NOx and SO_2 at the higher levels allowed by the new rule.

Because the recovery boilers' baseline for PM under the old and the new rules is the same, the new rule does not allow for any additional PM emissions from these units. Their PM baseline reflects the fact that they are already able to comply with the MACT limit. The NSPS for PM is the same as the MACT standard for PM, although the NSPS will not apply unless triggered by a modification.

Section 10

Sunoco Marcus Hook Refinery, Marcus Hook, Delaware County, PA —Permit Review

As is discussed in the Explanation of Methodology, which accompanies this permit analysis, the New Source Review (NSR) rule finalized December 31, 2002 (which we refer to as "the new rule") changes the calculation of emissions baselines for the purpose of determining whether or not the modification of a facility triggers NSR. The new approach to baseline calculation will tend to raise the threshold for triggering NSR by creating more leeway in the choice of a baseline. If a modification does not trigger NSR, the facility will escape the requirement that it install up-to-date pollution control equipment.

Here, we analyze the impact of that rule change on the permissible emissions levels of a selected unit at the Sunoco Marcus Hook Refinery (Marcus Hook), located in Pennsylvania, and identify any other federally enforceable air pollution programs that would prohibit this unit from emitting at the new levels.

Background Information

Industry Type: Petroleum refinery

The facility is a major source for NOx, SO_2, CO,[xxiv] PM and VOCs

Area Designations: Severe nonattainment for ozone (the criteria pollutant for which NOx and VOCs are regulated); attainment for PM, SO_2 and CO

Primary Emissions Units: boiler 15-BH-6

Table 10.1 Summary of emissions limits applicable to Marcus Hook under old and new rules, and under other applicable federal requirements

Permit Limits	NOx (tpy)	CO (tpy)	PM (tpy)
Baseline for facility under old rule	1473 (average of 1999 and 2000)	4777 (average of 1999 and 2000)	178 (average of 1999 and 2000)
Assigned baseline for boiler 15-BH-6 under old rule	295	382	12
Assigned limits* for boiler 15-BH-6 under old rule	334	481	36
Baseline for facility under new rule	2995 (average of 1992 and 1993)	5122 (average of 1998 and 1999)	249 (average of 1994 and 1995)
Assigned baseline for boiler 15-BH-6 under new rule	599	410	17
Assigned limits* for boiler 15-BH-6 under new rule	638	509	41
Percent increase in emissions from boiler 15-BH-6 allowable under new versus old rule	91%	6%	14%
NOx RACT limits on boiler 15-BH-6	431 (29% increase allowable)	not applicable	not applicable
NSPS limits on boiler 15-BH-6	323 (0% increase allowable)	not applicable	108 (no limit on allowable increase)
State preconstruction permitting program	could potentially limit emissions	could potentially limit emissions	could potentially limit emissions

*The limits reflect the addition of the amount by which emissions can increase without reaching the significance level for the pollutant. The significance levels we use are 40 tpy for NOx (although a lower significance level actually applies in severe ozone nonattainment areas), 100 tpy for CO and 25 tpy for PM.

Explanation

As is detailed in the accompanying Explanation of Methodology, the "baseline for facility under the old rule" in the table is calculated using the average emissions from the facility during the most recent two years. The "baseline under new rule" is calculated using the average emissions during the highest consecutive 24-month period during the last ten years (or fewer years if data for a ten-year period are unavailable).

As we also discuss in the Explanation of Methodology, where a facility contains a large number of emissions units, which is the case for Trainer, we have selected a relatively significant process unit or group of similar process units for evaluation, and have either assigned (where sufficient

historical data are available) or apportioned to that unit(s) a share of total facility emissions in order to estimate the emissions baseline for the unit(s).

Here, we have selected Marcus Hook's boiler 15-BH-6 for analysis, because it has the highest emissions of any of the facility's conventional combustion sources, and the second highest of any of the facility's emissions sources. In this case, there are unit-specific data for 1999 for actual emissions of NOx, CO and PM for Marcus Hook's combustion sources, and we have used that information to assign a baseline to boiler 15-BH-6 rather than apportioning the baseline based on an estimate. We have omitted SO_2 from our analysis because of the lack of comparable information. Based on the actual emissions, we have assigned boiler 15-BH-6 pollutant-specific portions of the entire facility's baseline as follows:

NOx	20 percent
CO	8 percent
PM	7 percent

The "limits" under both the old and new rule include the addition of an amount just below the applicable "significance" levels, i.e., the amount by which 15-BH-6 can increase emissions above its baseline in the event of a modification without triggering NSR.

In this example, NOx RACT limits NOx emissions under the old rule, which uses a 1999/2000 baseline. However, NOx RACT was not in place in 1992/1993, which is the relevant time period for the new baseline. Converting the applicable rate imposed by NOx RACT, which is 0.4 lb/mmBtu, to potential annual emissions, NOx RACT would limit the unit's NOx emissions to 431 tpy. This means that the unit would not be able to take full advantage of the 91 percent increase in NOx emissions that the new rule would currently allow as compared to the old rule but, rather, would be limited to a 29 percent increase.

There are no current Maximum Available Control Technology (MACT) standards applicable to boiler 15-BH-6. There are *proposed* MACT standards for industrial boilers (40 CFR 63 Subpart DDDDD). Unlike many MACT standards, the proposal breaks "new" and "existing" sources into two categories. The Marcus Hook boiler under consideration here burns liquid fuel and falls into the "existing" category, for which the proposed rule would not impose a standard. In order to qualify as a "new" boiler for purposes of the MACT proposal, the Marcus Hook unit would have to undergo a "reconstruction," which corresponds to the NSPS definition of "reconstruction" (and, as we indicate below, is unlikely).

If we assume the unlikely scenario of a modification that would trigger the NSPS but not NSR (unlikely because of the difference in the definition of "modification" for NSPS and NSR purposes), the only other applicable federal regulation would be the NSPS for medium-sized industrial boilers, at 40 CFR 60 Subpart Db. It contains standards for NOx and PM, but not for CO.[xxv] The limits this rule would impose (converted from rate to potential annual emissions and assuming the "worst case" of burning refinery oil) are:

NOx	323 tpy
PM	108 tpy
CO	no NSPS

Thus, the NSPS would not prevent the six percent emissions increase for CO or the 14 percent increase for PM that would occur under the new NSR rule. By contrast, if triggered it would prevent any increase in NOx emissions that would be permissible by virtue of applying the new NSR rule. However, recall (from the Explanation of Methodology) that a modification only triggers the NSPS if it increases the facility's hourly emissions rate of the pollutants in question, or is a "reconstruction," defined as the replacement of components costing more than 50 percent of the fixed capital cost that would be required to construct a comparable new facility. This is different from NOx RACT, which governs regardless of whether or not the facility undertakes a modification.

Pennsylvania uses the federal "significance" levels in determining federal NSR applicability and the associated requirements for emissions controls. Therefore, Pennsylvania's federal NSR program would not limit emissions that would be allowed under the new rule. Pennsylvania's state preconstruction requirements for modifications that result in emissions increases below "significance" levels are federally enforceable, and refer to "BACT-level" controls, which are determined on a case-by-case basis. If Pennsylvania's state preconstruction permitting requirements are triggered by a modification, they could limit emissions that would be allowed under the new rule. Of course, this is possible only if the state preconstruction permitting program is not preempted by the federal NSR program.

We have examined the following additional federally enforceable air pollution requirements. None is applicable to Marcus Hook's boiler 15-BH-6:

- Although Pennsylvania is in the NOx SIP call area and Marcus Hook is subject to the SIP call, boiler 15-BH-6 is not subject to the SIP call.
- Pennsylvania is a signatory to the Ozone Transport Commission Memorandum of Understanding (OTC MOU) and Marcus Hook is subject to the budget program established pursuant to the OTC MOU. However, boiler 15-BH-6 is not subject to the budget program.

Conclusion

Boiler 15-BH-6 at Marcus Hook would be allowed to increase its NOx emissions by 91 percent, its CO emissions by six percent, and its PM emissions by 14 percent under the new rule as compared to the old rule, without triggering NSR. However, NOx RACT requirements would limit the allowable NOx increase of 91 percent to 29 percent.

In the unlikely event that a modification triggered the applicable NSPS, only the facility's emissions of NOx would be prevented from increasing under the new rule. In that event, the unit would not be able to increase its NOx emissions, even in the amount that NOx RACT would allow.

An NSR-type modification associated with smaller emissions increase could trigger Pennsylvania's state preconstruction requirements, which are federally enforceable. These are

determined on a case-by-case basis, and are impossible to quantify in the abstract, but it is possible that they would limit emissions that would be allowed under the new rule assuming that they are not preempted by the federal NSR program.

No other current federally enforceable provisions would prevent emissions from boiler 15-BH-6 at the higher levels allowed by the new rule.

Appendix A
Detailed Summary of Results—Inventory Analyses

1. Connecticut
2. Delaware
3. Florida
4. Illinois
5. Indiana
6. Louisiana
7. Maine
8. New Jersey
9. New York
10. Pennsylvania
11. Vermont
12. Wisconsin

Allowable Emissions Increases in Connecticut Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1993-2002	PRATT & WHITNEY DIV UTC, MIDDLETOWN	not available	90	44	-	-
	SIMKINS INDUSTRIES INC	not available	-	54	-	-
	BRIDGEPORT RESCO CO LP	not available	109	273	-	-
	SPAGUE PAPERBORAD INC	not available	327	111	-	-
	CYTEC INDUSTRIES INC	not available	-	-	54	-
	COVANTA BRISTOL, INC	not available	160	-	-	-
	PRATT & WHITNEY DIV UTC, WILLGOOS LAB	not available	102	-	-	-
	PRATT & WHITNEY DIV UTC, MAIN PLANT	not available	310	-	-	-
	PFIZER INC	not available	714	2,737	-	-
	C R R A / MID-CONNECTICUT	not available	256	-	-	122
	M D C /HARTFORD WPCF	not available	-	-	-	390
	TOTAL	**not available**	**2,068**	**3,219**	**54**	**512**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.

2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Delaware Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1992-1999	KRAFT FOODS INC.	-	479	2,025	-	-
	DOW REICHHOLD SPECIALITY LATEX LLC	-	-	182	-	-
	CIBA SPECIALTY CHEMICALS CORP.	-	-	-	485	-
	DUPONT EDGEMOOR	-	-	54	94	1,058
	DUPONT EXPERIMENTAL STATION	-	5	5	-	-
	GENERAL MOTORS CORPORATION	-	-	-	620	-
	MOTIVA ENTERPRISES, LLC – DELAWARE CITY	368	12,579	9,574	1,388	-
	NVF COMPANY INC – YORKLYN FACILITY	-	-	282	-	-
	SUNCO INC (R & M)	-	609	237	117	-
	GENERAL CHEMICAL CORPORATION	92	2	699	-	-
	CITISTEEL USA	-	3	-	-	2,351
	METACHEM PRODUCTS, LLC	-	118	-	-	-
	DAIMLERCHRYSLER CORPORATION	-	-	-	270	-
	SPI POLYOLS, INC.	-	6	65	-	-
	DUPONT SEAFORD	-	-	602	94	-
	MOUNTAIRE FARMS OF DELAWARE INC-MILLSBOR	-	-	122	358	1
	TOTAL	**460**	**13,801**	**13,847**	**3,426**	**3,410**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.

2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1992-2001	CLARIANT LIFE SCIENCE MOLECULES (FLORIDA, GAINESVILLE	-	0	0	24	0
	PASCO BEVERAGE COMPANY, DADE CITY	-	-	-	190	-
	PASCO COUNTY, SPRING HILL	39	195	332	21	328
	J.E. AUSLEY CONSTRUCTION INC, MASARYKTOWN	2	4	11	-	-
	R P SCHERER NORTH AMERICA, ST. PETERSBURG	0	0	0	39	0
	METAL INDUSTRIES, INC., OLDSMAR	2	0	0	0	0
	PINELLAS CO. BOARD OF CO. COMMISSIONERS, ST. PETERSBURG	284	368	877	91	2,669
	SONNY GLASBRENNER, INC., CLEARWATER	28	27	0	23	91
	HOWCO ENVIRONMENTAL SERVICES, INC., ST. PETERSBURG	2	1	1	0	0
	MEDICO ENVIRONMENTAL SERVICES, INC., CLEARWATER	0	0	0	0	0
	DYCO PAINTS, INC. (MAXIE E. QUINN), CLEARWATER	0	-	-	6	-
	CITROSUCO NORTH AMERICA, INC., LAKE WALES	-	161	287	0	0
	CITRUS WORLD, INC., LAKE WALES	-	-	-	26	33
	CARGILL CITRO PURE, L.P., FROSTPROOF	-	-	-	615	391
	ASHLAND SPECIALTY CHEMICAL COMPANY, BARTOW	0	0	0	12	0
	ALCOA WORLD ALUMINA, L.L.C., FORT MEADE	9	11	0	0	3
	IMC PHOSPHATES COMPANY (CFMO), LITHIA	3	4	0	0	0
	CARGILL FERTILIZER, INC., BARTOW	49	0	61	3	0
	U S AGRI-CHEMICALS CORP., BARTOW	58	5	0	0	2
	U.S. AGRI-CHEMICALS CORPORATION, FORT MEADE	5	4	179	3	1
	CARGILL FERTILIZER, INC., BARTOW	963	669	0	1	4

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	IMC PHOSPHATES COMPANY, MULBERRY	0	53	0	6	0
	IMC PHOSPHATES COMPANY, MULBERRY	141	0	0	19	2
	CUSTOM CHEMICALS CORPORATION, MULBERRY	0	0	0	0	0
	AOC, L.L.C., LAKELAND	7	2	5	1	36
	RESOLUTION PERFORMANCE PRODUCTS LLC, LAKELAND	0	1	0	0	0
	CITRUS WORLD, INC., BARTOW	-	-	-	69	-
	CLEAN HARBORS FLORIDA, LLC, BARTOW	-	0	0	15	-
	FLORIDA POWER CORPORATION, FT. MEADE	-	177	-	-	-
	GEORGIA-PACIFIC CORP. PULP/PAPER MILL, PALATKA	501	985	2,997	293	146
	GEORGIA-PACIFIC CORP. PLYWOOD PLANT, HAWTHORNE	-	-	-	-	373
	VAW OF AMERICA, INC., ST AUGUSTINE	8	2	6	10	1
	MOTIVA ENTERPRISES LLC, FORT LAUDERDALE	-	-	-	21	-
	MOTIVA ENTERPRISES LLC, FORT LAUDERDALE	-	1	-	87	3
	BP PRODUCTS NORTH AMERICA, INC., FT. LAUDERDALE	-	-	-	27	-
	CITGO PETROLEUM CORP, FORT LAUDERDALE	-	1	-	3	1
	MARATHON ASHLAND PETROLEUM LLC, FORT LAUDERDALE	-	-	-	12	-
	CHEVRON PRODUCTS COMPANY, FORT LAUDERDALE	-	-	-	75	-
	EXXON-MOBIL OIL CORPORATION, FORT LAUDERDALE	-	-	-	3	-
	AMERADA HESS CORPORATION, FORT LAUDERDALE	-	-	-	2	-
	COASTAL FUELS MARKETING INC., FORT LAUDERDALE	0	0	0	156	0
	TROPICANA PRODUCTS, INC, FORT PIERCE	-	-	-	0	147

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	CARGILL CITRO PURE, L.P., FT PIERCE	-	-	-	-	84
	WHEELABRATOR SOUTH BROWARD, INC, FT. LAUDERDALE	26	768	58	3	29
	WHEELABRATOR NORTH BROWARD, INC., POMPANO BEACH	25	404	19	5	13
	BROWARD COUNTY, FORT LAUDERDALE	0	0	0	0	30
	ELAN TRANSDERMAL TECHNOLOGIES, MIRAMAR	-	-	-	5	-
	BROWARD COUNTY, DAVIE	0	0	0	0	26
	VALSPAR, DAVIE	0	-	-	1	-
	STERLING FIBERS, INC., PACE	25	431	24	64	31
	AIR PRODUCTS AND CHEMICALS, INC., PACE	8	293	3	476	522
	EXXONMOBIL PRODUCTION COMPANY, JAY	-	52	2,413	-	2
	PETRO OPERATING COMPANY, JAY	-	37	-	-	-
	FLORIDA GAS TRANSMISSION COMPANY, MILTON	-	178	-	-	-
	SARASOTA CO. BOARD OF COUNTY COMM'S, SARASOTA	1	3	1	69	17
	SCBOCC, GENEVA	-	0	0	29	0
	BUCKEYE FLORIDA, LIMITED PARTNERSHIP, PERRY	866	318	2,234	0	1,934
	GILMAN BUILDING PRODUCTS, PERRY	-	-	-	-	86
	FLORIDA GAS TRANSMISSION CO. TAYLOR CO., PERRY	-	142	-	-	-
	BOSTON WHALER, INC., EDGEWATER	-	-	-	19	-
	WATTYL U.S. LTD., EDGEWATER	0	-	-	4	-
	ST. MARKS POWDER, INC. A GENERAL DYNAMIC, ST MARKS	4	12	106	0	3
	MURPHY OIL USA, INCORPORATED, ST. MARKS	-	-	-	189	-
	STRATUS PETROLEUM CORP., ST. MARKS	-	0	-	107	0
	MURPHY OIL USA, INC., FREEPORT	-	0	-	99	-

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	FLORIDA GAS TRANSMISSION CO., CARYVILLE	-	117	-	-	-
	KING EXCAVATING, INC., PLACIDA FL	4	6	0	0	0
	CHARLOTTE CO.BOARD OF CO.COMMISIONERS, PUNTA GORDA	1	4	1	0	0
	GILMAN BUILDING PRODUCTS CO., MAXVILLE	2,812	-	-	-	-
	WASTE MANAGEMENT, INC. OF FLORIDA, NAPLES	-	4	0	15	0
	CSR RINKER MATERIALS CORPORATION., MIAMI	95	3,562	1,711	21	693
	TARMAC AMERICA LLC, MEDLEY	22	536	860	8	7
	U S FOUNDRY MANUFACTURING CORP., MEDLEY	0	0	1	0	0
	MIAMI-DADE WATER & SEWER DEPT, MIAMI	-	413	-	-	-
	MIAMI DADE RRF, MIAMI	321	0	1,559	3	824
	NAILITE INTERNATIONAL, MIAMI	-	-	-	26	-
	MIAMI DADE SOLID WASTE MANAGEMENT, MIAMI	-	0	-	264	5
	WASTE MANAGEMENT INC. OF FLORIDA, MEDLEY	-	30	123	762	144
	NOVEN PHARMACEUTICALS, INC., MIAMI	0	0	0	0	0
	MIAMI DADE SOLID WASTE MANAGEMENT, MIAMI	0	0	0	360	0
	SAFETY-KLEEN CORPORATION, MEDLEY	-	-	-	1	-
	DELTA LABORATORIES INCORPORATED, HIALEAH	0	-	-	0	-
	GEORGIA-PACIFIC CORP. CHIP/SAW, CROSS CITY	-	-	-	84	-
	PRIDE ENTERPRISES, SANDERSON	0	-	-	2	-
	ANCHOR GLASS CONTAINER CORPORATION, JACKSONVILLE	-	0	28	-	-
	ANHEUSER BUSCH, INC. JACKSONVILLE, JACKSONVILLE	-	79	-	-	-
	MILLENNIUM SPECIALTY CHEMICALS, JACKSONVILLE	12	72	0	27	3

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	OWENS-CORNING, JACKSONVILLE	-	-	-	17	-
	IFF CHEMICAL HOLDINGS, INC., JACKSONVILLE	2	6	8	10	1
	UNITED STATES GYPSUM CO., JACKSONVILLE	-	213	-	-	-
	REICHHOLD, INC., JACKSONVILLE	0	2	0	2	0
	AMERISTEEL, JACKSONVILLE MILL DIV., BALDWIN	24	0	72	13	1,932
	JEA, JACKSONVILLE	-	-	-	-	7
	BP PRODUCTS NORTH AMERICA, INC., JACKSONVILLE	-	-	-	9	-
	FLEET AND INDUSTRIAL SUPPLY CENTER, JACKSONVILLE	-	-	-	0	-
	CHEVRON PRODUCTS COMPANY, JACKSONVILLE	-	0	-	9	0
	COASTAL FUELS MARKETING, INC., JACKSONVILLE	0	1	0	42	0
	PETROLEUM FUEL & TERMINAL COMPANY, JACKSONVILLE	-	0	-	41	-
	F M C CORP, JACKSONVILLE	0	0	0	0	0
	UNITED STATES NAVY, JACKSONVILLE	-	167	-	-	-
	REFUSE SERVICES, INC., JACKSONVILLE	-	5	1	2	17
	CITY OF JACKSONVILLE(GIRVIN RD LANDFILL), JACKSONVILLE	3	16	3	0	74
	CITY OF JACKSONVILLE (NORTH LANDFILL), JACKSONVILLE	10	24	3	0	453
	TRAIL RIDGE LANDFILL, INC., BALDWIN	0	0	0	29	0
	US INK, A DIVISION OF SUN CHEMICAL CORP., JACKSONVILLE	0	-	-	2	-
	SOLUTIA INC., CANTONMENT	0	1,391	0	0	0
	INTERNATIONAL PAPER COMPANY, CANTONMENT	132	361	738	0	2,530
	REICHHOLD LLC, PENSACOLA	0	5	0	0	4
	COASTAL FUELS MARKETING, INC., PENSACOLA	0	0	0	0	0

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	NITROUS OXIDE CORPORATION, CANTONMENT	-	1	0	0	3
	ARIZONA CHEMICAL - DIV OF IPCO, PENSACOLA	1	4	0	38	0
	ADVANCED ELASTOMER SYSTEMS LP, CANTONMENT	0	0	0	0	0
	MOCAR OIL COMPANY, INC., PENSACOLA	-	-	-	826	-
	ESCAMBIA COUNTY BOCC, CANTONMENT	-	0	0	0	0
	SPECIALTY MINERALS, INC., CANTONMENT	4	0	0	2	7
	KANTHAL PALM COAST, PALM COAST	-	-	-	12	-
	COASTAL LUMBER CO, HAVANA	-	-	-	45	169
	FLORIDA GAS TRANSMISSION COMPANY, QUINCY	-	110	-	-	-
	ARIZONA CHEMICAL COMPANY, PORT ST JOE	5	36	27	0	0
	WHITE SPRINGS AGRICULTURAL CHEMICALS,INC, WHITE SPRINGS	57	104	764	5	5
	ARIZONA CHEMICAL COMPANY, PANAMA CITY	11	180	338	0	4
	STONE CONTAINER CORPORATION, PANAMA CITY	0	1,787	816	273	0
	BAY COUNTY BOARD OF COUNTY COMMISSIONERS, PANAMA CITY	18	9	55	0	237
	WHITAKER OIL COMPANY, PANAMA CITY	-	-	-	1	-
	TEXTURED COATINGS OF AMERICA,INC., PANAMA CITY	0	-	-	32	-
	CHEVRON PRODUCTS COMPANY, PANAMA CITY	0	1	-	4	5
	SAVANNAH FOODS INDUSTRIAL, INC, CLEWISTON	-	-	705	-	-
	U.S. SUGAR CORP. CLEWISTON MILL, CLEWISTON	11	112	347	1,188	2,522
	CEMEX, BROOKSVILLE	0	0	7	32	0
	FLORIDA CRUSHED STONE CO., INC., BROOKSVILLE	-	0	105	-	0

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	LESCO, INCORPORATED, SEBRING	4	0	0	0	0
	CF INDUSTRIES, INC., PLANT CITY PHOS, PLANT CITY	52	35	638	2	0
	CARGILL FERTILIZER, INC., RIVERVIEW	1	0	0	0	0
	TRADEMARK NITROGEN CORP, TAMPA	0	0	0	0	0
	NITRAM, INC., TAMPA	0	23	0	88	0
	CHEVRON PRODUCTS COMPANY, TAMPA	2	4	-	0	23
	GULF COAST RECYCLING, INC., TAMPA	2	0	608	83	2,053
	CORONET INDUSTRIES, INC., PLANT CITY	-	-	278	-	-
	MARATHON ASHLAND PETROLEUM LLC, TAMPA	0	0	0	228	0
	BP PRODUCTS NORTH AMERICA INC, TAMPA	0	1	0	19	0
	CENTRAL FLORIDA PIPELINE, TAMPA	-	0	-	16	0
	CITY OF TAMPA, TAMPA	-	240	254	-	-
	MOTIVA ENTERPRISES, LLC, TAMPA	-	0	-	99	0
	MURPHY OIL USA, INC., TAMPA	-	-	-	4	-
	ALCOA EXTRUSIONS, INC, PLANT CITY	10	19	0	67	21
	HILLSBOROUGH CTY. RESOURCE RECOVERY FAC., TAMPA	8	416	655	11	342
	CONIGLIO CONSTRUCTION AND DEMOLITION DEB, THONOTOSASSA	-	-	-	-	948
	BAUSCH & LOMB PHARMACEUTICALS, TAMPA	0	5	0	5	0
	HILLSBOROUGH COUNTY SOLID WASTE MGT DEPT, PICNIC	0	0	0	782	0
	CITRUS WORLD INC FKA GOLDEN GEM, UMATILLA	-	-	-	320	243
	COVANTA LAKE, INC., OKAHUMPKA	28	87	97	22	81
	CITY OF MASCOTTE, MASCOTTE	0	0	0	0	0
	GRIFFIN INDUSTRIES OF FLORIDA, HAMPTON	-	-	3	-	-

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	FLORIDA GAS TRANSMISSION CO., BROOKER	-	96	-	-	-
	CMC - STEEL FABRICATORS, STARKE	-	-	-	80	-
	CONSTRUCTION BURNING, INC., FORT MYERS	23	27	1	-	-
	LEE COUNTY DEPT. OF SOLID WASTE MGT., FORT MYERS	7	19	20	16	1
	WASTE MANAGEMENT, INC. OF FLORIDA, FORT MYERS	-	0	0	0	0
	NORTH FLORIDA LUMBER, BRISTOL	-	-	-	-	126
	COASTAL FUELS MARKETING, INC., PALMETTO	2	4	21	67	1
	TROPICANA PRODUCTS, INC., BRADENTON	-	222	111	0	0
	LAFARGE FLORIDA, INC., PALMETTO	10	-	-	-	-
	ACTICARB, INC., DUNNELLON	0	4	2	0	1
	CLAIRSON INTERNATIONAL, OCALA	0	0	0	27	0
	DELTA LABORATORIES, OCALA	1	-	-	4	-
	FLORIDA GAS TRANSMISSION COMPANY, SILVER SPRINGS	-	12	-	-	-
	MARION COUNTY BD OF CO COMM, OCALA	0	0	3	0	9
	CITY OF KEY WEST, KEY WEST	36	0	0	0	366
	JEFFERSON SMURFIT CORPORATION (US), FERNANDINA BEACH	1,136	1,828	3,934	0	2,173
	RAYONIER INC., FERNANDINA BEACH	196	167	649	45	0
	COASTAL FUELS MARKETING, INC., CAPE CANAVERAL	0	1	4	0	0
	BREVARD CO BOARD OF COUNTY COMMISSIONERS, COCOA	0	11	0	27	17
	SEA RAY BOATS INC, MERRITT ISLAND	-	-	-	42	-
	DICTAPHONE CORPORATION, MELBOURNE	0	0	0	2	0
	ECKLER INDUSTRIES, LLC, TITUSVILLE	0	0	0	5	0
	ROBERT A. CONNOR, INC., MELBOURNE	26	0	3	64	250

Allowable Emissions Increases in Florida Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	UNITED STATES AIR FORCE, EGLIN AFB	1,218	274	-	1,899	11,056
	OKEECHOBEE LANDFILL, INC., OKEECHOBEE	-	0	-	87	0
	LOUIS DREYFUS CITRUS, INC., WINTER GARDEN	-	-	-	214	103
	WALT DISNEY WORLD COMPANY, LAKE BUENA VISTA	-	16	-	-	-
	STERICYCLE INC, APOPKA	21	14	19	7	2
	FLORIDA GAS TRANSMISSION, STATION #18, ORLANDO	-	73	-	-	-
	OKEELANTA CORP, SOUTH BAY	-	402	-	705	7,480
	ATLANTIC SUGAR ASSOCIATION, BELLE GLADE	0	130	0	0	272
	OSCEOLA FARMS, PAHOKEE	11	29	103	0	213
	SUGAR CANE GROWERS CO-OP, BELLE GLADE	536	292	666	350	153
	U.S.SUGAR CORP. BRYANT MILL, BRYANT	97	47	100	553	1,732
	J E WILSON & SON, BELLE GLADE	-	-	-	2	-
	KIRCHMAN OIL CORP, BELLE GLADE	-	-	-	5	-
	F H FOSTER OIL CORP., INC., BOYNTON BEACH	-	-	-	5	-
	PORT CONSOLIDATED, INC., WEST PALM BEACH	-	-	-	6	-
	HOWELL OIL CO., INC., BELLE GLADE	-	-	-	17	-
	SUGAR SUPPLY, INC., BELLE GLADE	-	-	-	1	-
	JUPITER MULCH, INC., JUPITER	6	2	0	39	105
	SOLID WASTE AUTHORITY OF PBC, WEST PALM BEACH	0	206	22	28	0
	TOTAL[2]	**10,032**	**19,376**	**26,077**	**13,175**	**44,430**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs

are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.

2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1992-2001	Illinois Veterans Home, Quincy	-	-	167	-	-
	BPB America Inc, Quincy	-	-	1,879	-	-
	ADM Quincy, Quincy	127	150	295	623	-
	Bunge North America Inc, Cairo	204	-	64	202	-
	D & L Landfill Inc, Greenville	-	-	-	-	88
	Chrysler Corp, Belvidere	-	-	-	175	-
	University of Illinois, Champaign	-	375	-	-	15
	Archer Daniels Midland Co, Taylorville	-	-	566	294	-
	W G Murray Development Center, Centralia	-	-	101	-	-
	Natural Gas Pipeline Co of America, Hoffman	-	1,949	-	-	463
	RR Donnelley And Sons Co, Mattoon	-	-	-	223	-
	Owens Corning-summit Roofing & Asphalt, Summit	-	-	-	-	251
	3M Co, Bedford Park	-	-	-	1,680	-
	Corn Products International Inc, Bedford Park	180	114	5,369	598	2
	Viskase Corp, Bedford Park	-	-	-	803	-
	Kinder Morgan Liquid Terminals LLC, Argo	-	-	-	31	-
	Calumet Steel Co, Chicago Heights	-	-	-	-	404
	Rhodia Inc, Chicago Heights	298	-	-	-	-
	Chicago Heights Steel, Chicago Heights	-	-	-	175	-
	Werner Co, Franklin Park	-	-	-	65	-
	Allied Tube And Conduit Corp, Harvey	-	-	-	60	-
	General Motors - Electro-motive Div, McCook	-	707	589	-	-
	Vulcan Construction Materials LP, McCook	-	1	529	-	-
	UOP LLC, McCook	-	97	-	-	-
	Acme Steel Co, Riverdale	477	942	2,013	72	53,802
	Koppers Industries Inc, Cicero	-	18	262	99	-

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	Ford Motor Co, Chicago	-	-	-	577	-
	Carmeuse Lime Inc, Chicago	-	177	978	720	169
	LTV Steel Co, Chicago	46	66	732	-	66
	A Finkl & Sons Co, Chicago	-	-	-	-	222
	University of Illinois - Chicago, Chicago	-	-	261	-	-
	Chicago Specialties LLC, Chicago	-	48	72	-	-
	Wheatland Tube Co - Chicago Division, Chicago	-	-	-	8	-
	University of Chicago, Chicago	-	253	-	-	-
	Lake Landfill, Northbrook	-	-	-	-	55
	Premcor Alsip Distribution Center, Alsip	-	841	11,182	1,309	-
	JLM Chemicals Inc, Blue Island	-	-	79	-	-
	Robinson Carbon Inc, Robinson	-	20	-	-	-
	Marathon Ashland Petroleum LLC, Robinson	67	2,726	4,769	263	7
	Equistar Chemicals LP, Tuscola	283	1,760	6,672	-	-
	Panhandle Eastern Pipe Line Co, Tuscola	-	1,553	-	-	136
	Trunkline Gas Co, Tuscola	-	1,507	-	-	-
	Cabot Corp, Tuscola	-	-	-	-	22
	Nicor Gas, Naperville	-	109	-	-	-
	Cargill Dry Corn Ingredients, Paris	-	-	469	-	-
	Abitec Corp, Paris	-	-	-	103	-
	Quebecor World Direct-Petty, Effingham	-	-	-	89	-
	Natural Gas Pipeline Co, St. Elmo	-	83	315	-	-
	Solae LLC, Gibson City	-	-	-	12	-
	Equistar Chemicals LP, Morris	3	499	-	131	35
	Akzo Nobel Surface Chemistry LLC, Morris	-	117	-	72	-
	Laroche Industries Inc, Morris	-	-	-	-	561
	ANR Pipeline Co, New Windsor	-	643	-	-	195

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	Natural Gas Pipeline, Geneseo	-	921	-	-	554
	Curwood Inc, Murphysboro	-	-	-	141	-
	Southern Illinois University, Carbondale	-	-	1,552	-	-
	Continental Tire North America, Mt. Vernon	-	-	-	66	-
	Consolidation Coal Co, Sesser	-	-	-	137	139
	Royster-Clark Nitrogen, East Dubuque	-	776	-	239	140
	Vienna Correctional Center, Vienna	-	-	373	-	-
	Dart Container Corp of Illinois, North Aurora	-	-	-	3	-
	Dial Corp, Montgomery	787	171	-	-	-
	Nucor Steel Kankakee Inc, Bourbonnais	-	117	-	-	46
	Aventis Behring LLC, Bradley	-	-	-	107	-
	Congnis Corp, Kankakee	-	-	-	290	-
	Natural Gas Pipeline Co of America, Herscher	-	150	-	-	-
	ANR Pipeline Co, Sandwich	-	933	-	-	164
	Caterpillar Inc, Aurora	-	-	20	-	-
	PQ Corp, Gurnee	-	52	-	-	-
	Abbott Laboratories, North Chicago	31	117	336	18	-
	Outboard Marine Corp, Waukegan	-	-	-	376	809
	Countryside Landfill, Grayslake	-	-	-	-	80
	Abbott Laboratories, Abbott Park	-	56	9	71	13
	Naval Training Center, Great Lakes	-	510	-	-	-
	Illinois Cement Co, LaSalle	176	-	-	-	-
	Field Container Co LP, Marseilles	-	-	-	4	-
	Huntsman Expandable Polymer Co LLC, Peru	-	-	-	93	-
	Owens-Brockway Glass Container Inc, Streator	-	105	2	-	-
	Lone Star Industries Inc, Oglesby	-	114	190	-	-

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	Pilkington North America Inc, Ottawa	-	139	6	-	-
	General Electric Co - Plastics, Ottawa	-	58	-	244	-
	P Q Corp, Utica	-	81	-	-	-
	Dixon-Marquette Cement Inc, Dixon	-	-	2,402	-	-
	Resource Technology Corp, Pontiac	-	-	-	-	15
	Nicor Gas, Ancona	-	179	-	-	-
	IL Dept. of Human Services, Lincoln	-	-	158	-	-
	Saint-Gobain Containers Inc, Lincoln	-	152	-	-	-
	Western Illinois University, Macomb	-	-	230	-	-
	ANR Pipeline Co, Woodstock	-	335	-	-	-
	Cargill Inc, Bloomington	-	-	-	505	-
	Mitsubishi Motors North America, Inc, Normal	-	-	-	278	-
	Nicor Gas, Hudson	-	111	-	-	-
	Bridgestone/Firestone North America, Bloomington	-	-	-	100	-
	Archer Daniels Midland Co, Decatur	186	1,548	589	378	15
	Caterpillar Inc - Decatur Plant, Decatur	-	-	804	-	-
	Bridgestone/Firestone, Decatur	-	-	-	506	-
	A E Staley Manufacturing Co, Decatur	-	1,379	934	2,641	364
	Intermet Decatur Foundry, Decatur	128	-	-	22	19
	Laclede Steel Co, Alton	-	469	-	-	2,032
	Olin Corp, East Alton	21	31	-	-	575
	ASF-Keystone Inc, Granite City	60	-	-	76	-
	Premcor Refining Group Inc, Hartford	752	374	49	13,948	235
	ConocoPhillips Co,Wood River Refinery, Roxana	98	3,385	12,349	2,573	189
	National Steel Corp, Granite City	80	620	461	80	709
	Meridian Automotive Systems Inc, Centralia	-	-	-	421	-

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	Noveon Inc, Henry	-	-	-	44	-
	PolyOne Corp, Henry	-	42	-	-	-
	Honeywell International Inc, Metropolis	-	-	12	-	-
	Lafarge Midwest Inc, Grand Chain	192	-	6,829	-	960
	Trunkline Gas Co, Grand Chain	-	-	-	-	24
	Jacksonville Developmental Center, Jacksonville	-	-	109	-	-
	National Starch and Chemical Co, Meredosia	-	-	-	31	-
	Panhandle Eastern Pipeline Co, Waverly	-	219	-	-	-
	MasterBrand Cabinets Inc, Arthur	-	-	-	18	-
	Quebecor Printing Mt. Morris Inc, Mt. Morris	-	-	-	152	-
	HA International LLC, Oregon	-	-	-	105	-
	Archer Daniels Midland Co, Peoria	64	718	3,856	203	-
	Degussa/Goldschmidt Chemical, Mapleton	-	54	-	-	-
	Caterpillar Inc, Mapleton	78	-	-	30	310
	Keystone Steel & Wire Co, Peoria	830	6	-	-	5
	Caterpillar Inc/Mossville Engine Center, Mossville	-	212	450	2	-
	Natural Gas Pipeline of America, Hammond	-	1,256	-	-	-
	Panhandle Eastern Pipe Line Co, Pleasant Hill	-	1,043	-	-	119
	ISG Hennepin Inc, Hennepin	-	136	-	-	15
	Exolon - ESK Co, Hennepin	-	-	2,861	-	640
	Case Corp, East Moline	-	-	-	181	-
	John Deere Harvester Works, East Moline	-	90	394	174	-
	John Deere Seeding Group, Moline	-	-	-	611	-
	Rock Island Arsenal, Rock Island	-	-	207	-	-
	3M Cordova, Cordova	-	-	-	177	-
	Phillips Pipe Line Co, Cahokia	-	-	-	349	-

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	Ethyl Petroleum Additives Inc, Sauget	-	-	126	15	-
	Solutia Inc, Sauget	-	786	1,949	374	-
	Big River Zinc Corp, Sauget	260	-	642	-	-
	Cerro Copper Products Co, Sauget	-	-	-	78	27
	Panhandle Eastern Pipe Line Co, Glenarm	-	572	-	-	73
	Formosa Plastics Corp, Illiopolis	-	74	-	-	-
	Goodyear Tire & Rubber Co, Freeport	-	-	-	145	-
	Caterpillar, East Peoria	-	785	1,045	-	-
	Williams Ethanol Services Inc, Pekin	81	355	786	-	6
	Bunge Grain Milling Inc, Danville	-	-	354	382	-
	CCL Custom Manufacturing Inc, Danville	-	-	-	50	-
	Teepak LLC, Danville	-	-	-	2,160	-
	Trunkline Gas Co, Johnsonville	-	830	-	-	181
	Elysium Energy LLC- Zif Plant, Clay City	-	-	35	-	-
	Texas Eastern Transmission Corp, Norris City	-	128	-	-	43
	Sterling Steel Co LLC, Sterling	291	286	174	74	1,355
	Pactiv Corp, Frankfort	-	-	-	145	-
	CITGO Petroleum Corp, Lemont	190	3,503	-	329	1,616
	Exxon Mobil Oil Corp, Joliet	10	-	251	218	36
	BP Amoco Chemical Co, Channahon	4	252	-	460	1,422
	Stepan Co, Elwood	-	-	33	283	79
	Diversified CPC International Inc, Channahon	-	-	-	336	-
	Chicago Carbon Co, Lemont	-	-	916	-	-
	Peoples Energy Resources Corp, Elwood	-	200	-	-	-
	Essex Group Inc, Rockford	-	-	-	90	-
	Gunite Corp, Rockford	53	-	26	62	-
	Engineered Polymer Solutions Inc, Rockford	-	-	-	130	-

Allowable Emissions Increases in Illinois Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TOTAL	**6,057**	**39,185**	**78,882**	**39,109**	**69,502**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Indiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)*

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1996-2001	CENTRAL SOYA COMPANY INC	23	97	-	95	-
	BING ASSEMBLY SYSTEMS, LLC	-	-	-	52	-
	UNIROYAL GOODRICH TIRE MFG.	2,879	-	-	-	-
	PHELPS DODGE MAGNET WIRE COMPANY	-	-	-	1,101	-
	GENERAL MOTORS NATP FORT WAYNE ASSEMBLY	-	-	-	2,142	-
	PEPL - EDGERTON STATION	-	648	-	-	-
	CUMMINS ENGINE CO #5	-	412	-	-	-
	GOLDEN CASTING CORPORATION	112	-	-	105	4,565
	T G C - AMBIA STATION	-	58	-	-	-
	3 M CO. HARTFORD CITY	-	-	-	246	-
	PETERS REVINGTON FURNITURE	-	-	-	157	-
	ESSROC CEMENT CORP.	67	-	-	-	-
	JEFFBOAT	200	-	-	-	-
	KITCHEN KOMPACT INC	-	-	-	30	-
	ESSROC CEMENT CORP.	25	78	243	-	-
	ADM FRANKFORT	-	-	-	21	-
	AURORA CASKET CO INC	-	-	-	34	-
	PERNOD RICARD USA	-	-	30	4	-
	TEXAS GAS TRANSMISSION - DILLSBORO	-	412	-	-	101
	PRINTPACK INC.	-	-	-	291	-
	AUBURN FOUNDRY	288	-	-	-	7,004
	COOPER TIRE & RUBBER CO., ENG.PROD.DIV	-	-	-	52	-
	ASHLEY INDUSTRIAL MOLDING, INC.	-	-	-	17	-
	STEEL DYNAMICS, INC.	-	-	90	-	1,303
	ANR PIPELINE CELESTINE STATION	-	715	-	79	250
	MASTERBRAND CABINETS PLANT #4 & #22	-	-	-	3	-
	FABWEL COMPOSITES	-	-	-	32	-

Allowable Emissions Increases in Indiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)*

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	CANA INC.	-	-	-	21	-
	BAYER CORPORTATION	112	216	127	-	-
	MONACO COACH CORPORATION - WAKARUSA	-	-	-	14	-
	20TH CENTURY FIBERGLASS, INC. PLANT # 1	-	-	-	40	-
	CARPENTER CO.	-	-	-	489	-
	BECK INDUSTRIES	-	-	-	48	-
	ACCRA PAC, INC.	-	-	-	98	-
	VISTEON SYSTEMS, LLC	-	-	-	167	-
	HARRISON STEEL CASTING	408	-	-	-	-
	KRUPP GERLACH COMPANY	357	-	-	-	-
	AKRON FOUNDRY, INC.	-	-	-	-	248
	TEPPCO PRINCETON TERMINAL	-	-	-	266	-
	MFD MARION PLANT	-	-	217	-	-
	THOMSON MULTIMEDIA, INC.	-	-	-	-	65
	ROLL COATER INC.	-	-	-	725	-
	QUALITECH STEEL SBQ LLC	-	-	-	-	131
	ALLEGHENY LUDLUM CORPORATION	-	20	-	-	-
	DAIMLERCHRYSLER CORP TRANSMISSION PLANT	-	-	271	-	-
	KEN-KOAT, INC	-	-	-	115	-
	US MINERAL PRODUCTS COMPANY	-	-	-	208	93
	ANR PIPELINE CO PORTLAND STATION	-	1,041	-	-	199
	SONOCO FLEXIBLE PACKAGING	-	-	-	98	-
	DALTON CORPORATION WARSAW MANUFACTURING	107	-	-	116	97
	R.R. DONNELLEY & SONS COMPANY	-	-	-	257	-
	BP PRODUCTS NORTH AMERICA INC, WHITING R	64	321	-	548	76

Allowable Emissions Increases in Indiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)*

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	ANR PIPELINE NAT GAS_CO-ST. JOHN STATION	-	166	-	-	-
	CARMEUSE LIME INCORPORATED	6	100	-	-	48
	U S STEEL CO GARY WORKS	1,389	2,264	7,212	1,822	11,185
	USS - CENTRAL TEAMING COMPANY, INC.	72	-	-	-	-
	CERESTAR USA, INC.	120	246	114	374	-
	Ispat Inland Inc.	-	7,111	11,394	-	-
	LTV STEEL COMPANY	140	312	-	48	1,958
	INDIANA HARBOR COKE COMPANY	-	19	1,788	-	11
	CASTING SERVICE	164	-	-	157	-
	ROLL COATER INC.	-	-	-	102	-
	GUIDE CORPORATION	-	-	-	275	-
	OWENS BROCKWAY GLASS CONTAINER INC.	25	226	-	-	-
	DAIMLER CHRYSLER CORPORATION FOUNDRY	78	-	-	138	13,424
	ELI LILLY AND COMPANY (LCC)	-	-	-	255	-
	INDIANAPOLIS BELMONT WWTP	-	-	-	-	18
	C.C. PERRY K STEAM PLANT	-	1,452	3,305	-	86
	INTERNATIONAL TRUCK AND ENGINE CORP.	-	-	-	29	12
	CITIZENS GAS & COKE	-	96	103	12	11
	QUEMETCO, INC.	-	-	287	-	-
	CRYOVAC RIGID PACKAGING CRYOVAC, INC.	-	-	-	112	-
	PANHANDLE EASTERN PIPELINE CO	-	719	-	-	109
	COVANTA INDIANAPOLIS, INC.	-	824	174	-	21,404
	ALLISON TRANSMISSION DIVISION OF GMC	-	-	47	-	-
	REILLY INDUSTRIES, INC.	-	-	-	-	823
	BREMEN CASTINGS INC	-	-	-	-	965
	BOMARKO INC.	-	-	-	149	-

Allowable Emissions Increases in Indiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)*

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	AKER PLASTICS CO. INC.	-	-	-	3	-
	PACTIV CORPORATION	-	-	-	167	-
	BREMEN CORPORATION	-	-	-	199	-
	BREMEN TECHNOLOGIES, INC.	-	-	-	47	-
	NAVAL SURFACE WARFARE CENTER CRANE	858	-	-	-	28
	COUNTRYMARK COOPERATIVE, INC.	-	-	-	61	-
	INDIANA UNIVERSITY	-	182	17	-	-
	RAYBESTOS	-	-	-	37	-
	NUCOR STEEL	-	35	541	-	60
	GENERAL SHALE PRODUCTS	-	-	171	-	-
	BON L MANUFACTURING COMPANY	-	-	-	3	-
	DALTON CORP. KENDALLVILLE MFG. FACILITY	101	-	-	-	149
	ESSEX GROUP, INC.	-	-	-	39	-
	TETCO - FRENCH LICK STATION	-	145	-	-	-
	PAOLI, INC.	-	-	-	89	-
	PEPL - MONTEZUMA STATION	-	682	-	-	216
	WAUPACA FOUNDRY, INC. PLANT 5	-	-	213	96	1,092
	MIDWESTERN GAS TRANSMISSION	-	258	-	-	-
	TEXAS GAS TRANSMISSION - PETERSBURG	-	71	-	-	-
	BETHLEHEM STEEL CORP.	471	13,578	-	-	17,368
	NATIONAL STEEL CORP	-	364	-	-	-
	BETA STEEL CORP	-	-	-	-	77
	AMERICAN IRON OXIDE COMPANY	-	257	-	-	213
	GE PLASTICS MT. VERNON INC.	-	284	2,021	112	-
	COUNTRYMARK COOPERATIVE, INC (REFINERY)	-	43	1,606	962	3,752

Allowable Emissions Increases in Indiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)*

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	LONE STAR INDUSTRIES, INC	-	1,367	1,589	-	-
	ASTRAL INDUSTRIES INC.	-	-	-	15	-
	ANCHOR GLASS CONTAINER CORPORATION	16	-	66	-	-
	JOSEPH E. SEAGRAM & SONS, INC.	-	-	-	485	-
	BATESVILLE MFG, INC. COMBO 137-00016	-	-	-	16	-
	POWER PLANT	-	255	-	-	-
	AM GENERAL CORPORATION	-	-	-	20	-
	NEW ENERGY CORP.	-	-	46	7	-
	KNAUF FIBERGLASS	58	-	-	-	81
	ANR PIPELINE CO - SHELBYVILLE STATION	-	474	-	52	259
	ALCOA - LAFAYETTE DIVISION	-	-	-	122	-
	A.E. STALEY SAGAMORE OPERATION	-	35	107	231	-
	ELI LILLY & COMPANY-TIPPECANOE LABS	43	146	199	-	-
	PURDUE UNIVERSITY - WADE UTILITY PLANT	-	283	292	-	-
	REA MAGNET WIRE CO	-	-	-	160	-
	A.E. STALEY MAN. CO. SOUTH PLANT	316	931	7,969	271	-
	CANAM STEEL CORPORATION	-	-	-	12	-
	CARGILL, INC. - LAFAYETTE	131	-	-	77	-
	CATERPILLAR INC.	-	64	-	-	-
	WABASH NATIONAL LP MAIN PLANT	-	-	-	61	-
	SUBARU-ISUZU	-	-	-	180	-
	MEAD JOHNSON AND COMPANY	-	-	649	-	-
	WHIRLPOOL CORP	-	-	-	255	-
	AZTECA MILLING, L.P.	33	-	-	-	-
	BFI	-	-	-	-	80
	ELI LILLY & COMPANY-CLINTON LABS	-	18	190	145	-

Allowable Emissions Increases in Indiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)*

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	ALCAN ALUMINUM CORPORATION	-	-	-	190	-
	GARTLAND FOUNDRY COMPANY	-	-	-	-	534
	INDIANA STATE UNIV	-	-	398	-	-
	INTERNATIONAL PAPER CO.	-	25	697	-	-
	WABASH RIVER ENERGY LTD.	-	-	-	-	1,029
	BPB AMERICA, INC.	-	-	169	-	5,297
	JEFFERSON SMURFIT CORPORATION (U.S.)	-	-	75	-	-
	THERMAFIBER INC. WABASH PLANT	165	-	-	-	-
	WABASH ALLOYS, L.L.C.	-	-	-	413	-
	ALCOA INC. - WARRICK OPERATIONS	-	111	2,692	95	21,112
	CHILD CRAFT INDUSTRIES, INC.	-	-	-	571	-
	DANA SLEEVE CASTING (COMBO 177-00090)	-	-	-	-	3,077
	BP - BROOKSTON	-	-	-	22	-
	BALL METAL BEVERAGE CONTAINER CORP	-	-	-	86	-
	LIBERTY LANDFILL, INC.	-	-	-	-	152
	TOTAL	**8,828**	**37,161**	**45,109**	**16,445**	**118,762**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

* Corrections to Indiana Results

Several errors in the Indiana emissions inventory and the classification of major sources reduced the initial results found for the potential increase in emissions under the New Rule. As originally calculated, emissions increases under the New Rule were estimated at 430,030 tons. That number was reduced to 226,305 tons using corrected information from Indiana state air permitters. Almost all of this decrease is due to the erroneous inclusion of data from two facilities – BP Amoco and Hoosier Electric – which resulted in an overstatement of emissions of sulfur dioxide and carbon monoxide by 115,237 tons and 114,300 tons, respectively. These corrections have been made and are now reflected in the data.

According to state air permitting officials, the BP refinery's carbon monoxide emissions for 1996 totaled 6,006 tons (as opposed to the 208,970 tons initially reported). The mis-reported data resulted in an overstatement in the potential to increase emissions relative to the Old Rule of 100,558 tons of carbon monoxide when comparing the highest two-year average to the most recent two-year average. A similar error in the emissions inventory resulted in an overstatement in potential emissions increases for Nucor Steel by 13,916 tons of carbon monoxide.

EIP-CSG/ERC also incorrectly included two utilities (the PSI Energy plant in Gallagher, Indiana, and Hoosier Energy in Merom, Indiana) due to reporting errors. Another four sources, including Wayne Asphalt, the Mitchell and Bloomington facilities of the Rogers Group, and Holy Cross, should have been omitted because they are minor sources not subject to NSR. The mis-reported inventory data and the inclusion of the utilities and minor sources together resulted in an overstatement of 1,903 tons of particulate matter; 72 tons of nitrogen oxides; 115,237 tons of sulfur dioxide; no change in volatile organic compounds; and 114,513 tons of carbon monoxide. Again, these corrections have been incorporated into the data above.

We have received no further corrections from states, and believe the errors identified in the Indiana results to be unique. To guard against "emissions inflation," in reviewing the data prior to the release of the July 29, 2003 draft report, emissions increases from several Louisiana facilities that appeared unusually high were excluded from the analysis. In addition, the Indiana data suggest that EIP/CSG-ERC has generally been conservative in identifying major sources subject to NSR, hence excluding several facilities from the analysis. For example, data for Indiana indicate that at least 100 facilities classified by the state as major sources were not incorporated in the July 29, 2003 draft of *Reform or Rollback?* Including these sources would be expected to add new emissions releases to the Indiana calculation of at least several thousand tons. It should be noted that due to the state's concerns about the quality of historical data, the Indiana analysis is based on six years of emissions data, rather than the ten years available for baseline selection under the New Rule.

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1994-2000	EL PASO FLD SRVCSS/RAYNE NGL F	-	423	-	-	-
	FLORIDA GAS TRANSMISSION CO/EU	-	375	-	-	-
	EXXONMOBIL PROD CO/BLUE WATER	-	12	-	-	-
	COLUMBIA GULF TRANSMISSION CO/	-	1,200	-	-	231
	TEXAS GAS TRANS CORP/EUNICE	-	286	-	-	-
	CONOCO INC NG & GP/ACADIA GAS	-	99	-	-	-
	ANR PIPELINE CO/EUNICE C S	-	495	-	-	162
	EL PASO FLD SRVCS CO/EUNICE EX	-	19	-	-	-
	BOISE CASCADE CORP/OAKDALE PLY	22	-	-	84	240
	ORMET CORP/ALUMINA PLANT	-	288	-	-	41
	MONOCHEM, INC.	-	207	-	-	-
	CF INDUSTRIES, INC.	-	388	-	-	-
	RUBICON, INC.	-	586	-	-	1,112
	BORDEN CHEM & PLASTICS OPER,LT	9	332	-	1,504	83
	TRIAD NITROGEN LLC	-	246	-	-	115
	SHELL CHEMICAL LP/GEISMAR PLNT	-	-	-	191	276
	VULCAN CHEMICALS	-	885	-	-	237
	UNIROYAL CHEMICAL COMPANY	-	-	-	55	-
	BASF CORPORATION/GEISMAR SITE	-	287	-	9	307
	EL PASO FLD SRVCS CO/RIVERSIDE	-	11	-	-	-
	EVAN HALL SUGAR COOP/DONALDSON	-	-	-	-	1,987
	ENTERPRISE GAS PROC LLC/TEBONE	-	-	-	71	-
	TRIAD NITROGEN, INC/AMPRO	-	206	-	-	277
	PCS NITROGEN FERTILIZER,L.P./G	159	517	795	-	1,198

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	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	WILLIAMS OLEFINS LLC/GEISMAR	-	34	-	23	29
	GLENWOOD COOPERATIVE	1	-	-	-	-
	GULF SOUTH PIPELINE CO LP/MARK	-	111	-	-	-
	BOISE CASCADE CORP/DERIDDER MI	-	403	1,235	11	6,956
	WESTVACO CORPORATION	-	-	-	201	-
	TRANSCONTINENTAL GAS PIPE LINE	-	553	-	-	-
	TRUNKLINE GAS CO/LONGVILE COMP	-	675	-	-	-
	TEXAS EASTERN TRANS CORP/GILLI	-	280	-	-	-
	GULF SOUTH PIPELINE CO LP/BIST	-	1,031	-	-	571
	SOUTHERN NATURAL GAS/BIENVILLE	-	65	-	-	-
	SOUTHERN NATURAL GAS/BEAR CREE	-	161	-	-	-
	CALUMET LUBRICANTS CO/PRINCETO	-	-	-	40	-
	RELIANT ENERGY FLD SRVCS/SLIGO	-	293	-	-	-
	GULF SOUTH PIPELINE CO/KORAN	-	364	-	-	-
	ARCH CHEM INC/SHREVEPORT SULFU	-	-	313	-	-
	PENNZOIL QUAKER STATE CO/SHREV	-	107	112	169	50
	LIBBEY GLASS, INC.	-	78	-	-	-
	W. R. GRACE & CO	117	241	-	-	-
	EQUISTAR CHEMICALS, LP/LAKE CH	-	180	-	-	37
	PPG INDUSTRIES,INC.	122	1,407	-	-	319
	CONOCO INC/LAKE CHARLES REFINE	9	-	724	946	554
	BASELL USA INC	-	64	-	-	-
	FIRESTONE POLYMERS/LAKE CHARLE	-	-	-	209	-
	ARCH CHEM INC/LAKE CHARLES	-	3,448	-	-	2,246
	REYNOLDS METALS CO/LAKE CHARLE	-	-	-	-	95

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	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	CITGO PETROLEUM CORP/LAKE CHAR	-	2,112	2,722	1,683	-
	CONDEA VISTA CO/MAIN PLANT	47	74	-	883	1
	VENTURE COKE CO,LLC/LAKE CHARL	-	34	478	-	-
	LOUISIANA PIGMENT CO	-	-	1,089	-	-
	LYONDELL CHEM CO/LAKE CHARLES	-	1,412	-	-	48
	TEXAS GAS TRANS CORP/COLUMBIA	-	125	-	-	-
	HILCORP ENERGY CO/ W HACKBERRY	-	325	-	-	78
	TEXACO PIPELINES LLC/GRAND CHE	-	139	-	-	-
	DYNEGY MIDSTREAM SVC/STINGRAY	-	49	-	-	-
	WILLIAMS FIELD SERVICES/CAMERO	-	198	-	-	-
	EL PASO FLD SRVCS/HOLLY BEACH	-	311	-	-	-
	DYNEGY MIDSTREAM SVC LP/LOWRY	-	422	-	-	-
	TEXACO E & P INC/SECOND BAYOU	-	-	-	147	-
	TRANSWORLD E&P INC/KINGS BAYOU	-	-	-	274	-
	DUKE ENERGY FLD SRVCS LP/HAYNE	-	54	-	-	-
	TEXAS GAS TRANS CORP/SHARON	-	1,327	-	-	270
	CLECO CORP/DOLET HILLS POWER S	1	3,350	6,056	-	587
	SOUTHERN NATURAL GAS/LOGANSPOR	-	792	-	-	-
	INTERNATIONAL PAPER/MANSFIELD	205	1,657	319	235	6,167
	FORMOSA PLASTICS CORPORATION,	-	17	-	-	-
	EXIDE CORP/B R SMELTER	-	-	1,248	-	-
	DELTECH CORPORATION	-	248	-	-	-
	DSM COPOLYMER/BR PLANT	-	148	-	-	-
	GEORGIA PACIFIC/PT HUDSON OPER	960	53	547	558	2,664
	FLORIDA GAS TRANSMISSION CO/ZA	-	141	-	-	-

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	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	EXXONMOBIL CHEM CO/BR CHEM PLT	-	48	141	527	2,952
	EXXONMOBIL REF & SUPPLY CO/B R	178	-	902	3,962	4,090
	EXXONMOBIL CHEM/BR PLASTICS PL	-	-	-	152	-
	REYNOLDS METALS CO/B R COKE PL	-	-	1,387	-	-
	RHODIA INC/BR FAC	-	-	1,426	-	-
	TENNESSEE GAS PIPELINE-STATION	-	453	-	-	-
	TRANSCONTINENTAL GAS PIPE LINE	-	274	-	-	-
	TRANSCONTINENTAL GAS PIPELINE/	-	313	-	-	65
	CABOT CORPORATION/VILLE PLATTE	52	25	64	3,140	NR
	CLECO EVANGELINE LLC/EVANGELIN	-	625	-	-	-
	TRANSCONTINENTAL GAS PIPE LINE	-	258	-	-	-
	TENNESSEE GAS PIPELINE-STATION	-	419	-	-	234
	HUNT FOREST PRODUCTS,INC/POLLO	23	-	-	-	-
	FARMLAND INDUSTRIES, INC.	-	663	-	276	-
	TRUNKLINE GAS CO/POLLOCK STATI	-	360	-	-	101
	MERIDIAN RESOURCE & EXP CO/WEE	-	828	-	-	-
	TEXACO E & P INC/MOUND PT A	-	256	-	-	-
	ENERVEST OPERATING LLC/FAUSSE	-	405	-	-	-
	GEORGIA GULF CHEM & VINYLS LLC	-	336	-	-	64
	SYNGENTA CROP PROTECTION INC/S	-	39	-	29	-
	DOW CHEMICAL CO/LA DIVISION	336	3,322	560	378	202
	ASHLAND CHEMICAL CO/PLAQUEMINE	-	381	-	-	280
	ATOFINA PETROCHEMICALS INC/COS	-	409	-	-	107
	SO NAT GAS CO/WHITE CASTLE COM	-	23	-	-	-

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	MERIDIAN RESOURCE & EXPLORATIO	-	-	-	132	-
	SCC HODGE INC	-	1,324	535	-	1,149
	CYTEC INDUSTRIES,INC/FORTIER P	-	119	94	-	-
	AVONDALE IND., INC./MAIN YARD	-	-	-	62	-
	DELTA TERMINAL SRVCS/EAST YARD	-	-	-	702	-
	STONE ENERGY CORP/LAFITTE CS	-	209	-	-	-
	VASTAR RES INC/GRAND ISLE TB	-	-	-	830	-
	TEXAS EASTERN TRANS CORP/IOWA	-	133	-	-	92
	TENNESSEE GAS PIPELINE-STATION	-	798	-	-	223
	TEXAS GAS TRANS CORP/YOUNGSVIL	-	136	-	-	-
	TX EASTERN TRANS CORP/LAROSE	-	108	-	-	-
	CHEVRON USA PROD CO/FOURCHON T	-	-	-	431	-
	STONE ENERGY CORP/CLOVELLY FLD	-	32	-	-	-
	ENERVEST OPERATING LLC/LEEVILL	-	60	-	-	-
	LA PACIFIC CORP/URANIA	496	67	-	1,234	130
	ANR PIPELINE CO/JENA COMP STAT	-	1,291	-	-	312
	SAINT-GOBAIN CONTAINERS INC	-	19	98	-	-
	WILLAMETTE IND/SUREPINE DIV	-	-	-	41	-
	EL PASO FIELD SERVICES/DUBACH	-	292	-	-	-
	RUSTON ELECTRICAL GENERATING	-	375	-	-	-
	MISS RIVER TRANSMISSION/UNIONV	-	374	-	-	53
	INTERNATIONAL PAPER CO/LOUISIA	17	109	1,612	-	224
	TEXAS GAS TRANS CORP/BASTROP	-	1,328	-	-	-
	WESTERN GAS RES/BLK LAKE SAT # 2	-	624	-	-	-

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	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	WILLAMETTE IND/RED RIVER MILL	83	49	543	299	-
	EXCO RESOURCES INC/BLK LAKE GA	-	1,486	-	-	-
	TENNESSEE GAS PIPELINE-STN 40	-	1,981	-	-	452
	GULF SOUTH PIPELINE CO/CLARENC	-	294	-	-	253
	FOLGERS COFFEE CO	88	-	-	-	161
	ENTERGY NO/MICHOUD	-	167	1,374	-	-
	AIR PRODUCTS & CHEMICALS,INC/N	-	397	-	-	-
	RIVERWOOD INTERNATIONAL-PLNT 3	456	340	294	192	955
	ANGUS CHEM. CO/STERLINGTON PLN	-	108	-	55	256
	ENTERGY LA/STERLINGTON	-	12	-	-	-
	GUIDE CORP LLC/MONROE PLNT	-	-	-	163	-
	TEXAS EASTERN TRANS CORP/W. MO	-	883	-	-	-
	RIVERWOOD INTERNATIONAL-PLNTS	-	-	-	25	-
	KOCH NITROGEN COMPANY	-	820	-	-	135
	GULF SOUTH PIPELINE CO/STERLIN	-	352	-	-	487
	TEXAS GAS TRANS CORP/GUTHRIE	-	145	-	-	-
	TENNESSEE GAS PIPELINE-STATION	-	2,017	-	-	609
	EL PASO FIELD SERVICES/CALHOUN	-	168	-	166	-
	MISS RIVER TRANSMISSION/PERRYV	-	36	-	-	-
	CHEVRON CHEMICAL CO LLC/OAK PO	-	-	276	-	-
	DYNEGY MIDSTREAM SVC LP/VENICE	-	172	-	-	15
	SOUTHERN NATURAL GAS/OLGA COMP	-	322	-	-	-
	TOSCO REFINING CO/ALLIANCE REF	305	1,150	5,311	644	2,826
	AMAX METALS RECOVERY, INC.	-	163	-	-	-
	JETTA OPER CO/ROMERE PASS TERM	-	60	-	-	-

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TENNESSEE GAS PIPELINE-STATION	-	876	-	517	-
	NORTH CENTRAL OIL CORP/S PASS	-	26	-	-	-
	ENERGY PARTNERS LTD/E BAY CNTR	-	-	-	371	291
	OCEAN ENERGY, INC/MAIN PASS 69	-	1,019	-	-	71
	XPLOR ENERGY OPERATING CO/MAIN	-	116	-	676	-
	EXXONMOBIL PROD CO/MAIN PASS 7	-	1	-	-	-
	DEVON ENERGY PROD CO LP/QUARAN	-	279	-	-	154
	CHEVRON USA INC/W BAY COMPRESS	-	92	-	-	-
	PHILLIPS PETROLELUM CO/SE BAST	-	-	-	221	-
	PIONEER NAT RES USA INC/GRAND	-	303	-	107	-
	W G HELIS CO LLC/BLACK BAY COM	-	62	-	-	-
	DYNEGY MIDSTREAM SVC LP/DELTA	-	188	-	-	-
	BASS ENTERPRISES PROD CO/COX B	-	181	-	67	-
	BASS ENTERPRISES PROD CO/PT HA	-	205	-	-	-
	PHILLIPS PETROLEUM CO/LK WASHI	-	238	-	-	41
	KERR-MCGEE OIL & GAS CORP/BRET	-	-	-	234	-
	ENERGY PARTNERS LTD/FREEWATER	-	-	-	716	-
	ENERGY PARTNERS LTD/FREEWATER	-	-	-	320	-
	ENERGY PARTNERS LTD/FREEWATER	-	-	-	248	-
	ENERVEST ENERGY LP/C B EAST BA	-	154	-	-	-
	BIG RIVER INDUSTRIES, INC.	99	133	197	-	42
	LA GENERATING LLC/BIG CAJUN 2	-	-	2,659	-	-
	LA GENERATING LLC/BIG CAJUN 1	-	511	-	-	-
	TEXACO E & P INC/FORDOCHE CF 3	-	-	-	110	-

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	INTERNATIONAL PAPER CO/PINEVIL	4	203	100	17	261
	COLUMBIA GULF TRANSMISSION CO/	-	714	-	-	-
	CLECO CORP/RODEMACHER POWER ST	19	-	2,371	-	-
	TEXAS GAS TRANS CORP/PINEVILLE	-	224	-	-	-
	COLUMBIA GULF TRANSMISSION CO/	-	542	-	-	62
	ANR PIPELINE CO/DELHI COMP STA	-	363	-	-	-
	MURPHY OIL USA, INC./MERAUX RE	118	340	223	464	4,948
	ENTERPRISE GAS PROC LLC/TOCA G	-	-	-	79	-
	CHALMETTE REFINERY LLC.MOBIL O	-	-	106	504	45
	DYNEGY MIDSTREAM SVC LP/YSCLOS	-	570	-	-	173
	SOUTHERN NATURAL GAS/TOCA COMP	-	205	-	37	192
	WESTERN GAS RESOURCES INC/TOCA	-	124	-	-	159
	CLIFFWOOD PROD CO/HALF MOON LA	-	115	-	-	-
	CLIFFWOOD PROD CO/ELOI BAY PRO	-	141	-	-	11
	UNION CARBIDE/TAFT & STAR	-	1,085	525	155	-
	MOTIVA ENTERPRISES LLC/NORCO R	296	11,421	1,437	3,046	8,650
	CII CARBON,L.L.C./NORCO	-	-	60	-	-
	MONSANTO COMPANY/LULING PLANT	-	1,149	-	-	157
	OCCIDENTAL CHEMICAL CORP/TAFT	-	21	-	-	-
	SHELL CHEMICAL LP/NORCO CHEM P	-	284	-	215	-
	ENTERGY LA/LITTLE GYPSY	-	4,536	-	-	170
	BUNGE CORP/SOYBEAN PROCESSING	-	-	-	69	-
	ENTERGY LA/WATERFORD 1 & 2	-	1,844	-	-	55
	ORION REFINING CORP	-	-	1,228	-	-

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	UNION CARBIDE/CYPRESS POLYPROP	-	-	-	148	-
	TEXACO E & P INC/PARADIS TB 1	-	-	-	174	-
	TEXACO PIPELINES LLC/PARADIS G	-	113	-	-	-
	SHELL CHEMICAL LP/ST. ROSE REF	-	77	-	-	-
	INTERNATIONAL MATEX TANK/ST. R	-	-	-	141	-
	TEXACO E & P INC/PARADIS C02	-	370	-	-	-
	SHELL CHEMICAL LP/NORCO CHEM P	-	3,244	809	782	270
	GULF SOUTH PIPELINE CO/MONTPEL	-	134	-	-	-
	TRANSCONTINENTAL GAS PIPE LINE	-	1,151	-	-	100
	MOTIVA ENTERPRISES,LLC/CONVENT	84	119	2,391	200	88
	KAISER ALUMINUM & CHEMICAL COR	-	2,232	-	-	384
	IMC PHOSPHATES CO/UCLE SAM PLN	-	-	1,527	-	-
	IMC PHOSPHATES CO/FAUSTINA PLN	15	227	1,391	-	12
	CHEVRON PHILLIPS CHEM CO LP/ST	-	115	-	-	-
	WILLIAMS FIELD SERVICES/C.S.#6	-	649	-	-	653
	CII CARBON,L.L.C./GRAMERCY	-	2	241	-	-
	E. I. DUPONT DE NEMOURS & CO/P	-	214	-	-	-
	MARATHON ASHLAND PETROLEUM LLC	97	1,065	718	61	1,119
	BAYOU STEEL CORP.	-	-	-	-	65
	DUPONT DOW ELASTOMERS LLC	-	161	-	-	-
	VALERO REFINING CO/KROTZ SPRIN	-	391	544	702	328
	TX EASTERN TRANS CORP/OPELOUSA	-	1,548	-	-	286
	TRANSCONTINENTAL GAS PIPE LINE	-	474	-	-	88
	MERIDIAN RESOURCE & EXPLORATIO	-	411	-	-	-

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	CABOT CORPORATION/CANAL PLANT	-	-	-	5,905	NR
	COLUMBIAN CHEM CO/ NORTH BEND	143	98	73	6,153	NR
	GULF SOUTH PIPELINE CO/BAYOU S	-	274	-	-	-
	CABOT OIL & GAS CORP/BELLE ISL	-	188	-	-	-
	GULF SOUTH PIPELINE CO/BURNS P	-	-	-	273	-
	DEGUSSA HULS CORP/IVANHOE PLAN	-	-	-	1,417	71,680
	ENTERPRISE GAS PROCESSING LLC/	-	-	-	63	-
	ANR PIPELINE CO/PATTERSON STAT	-	1,206	-	-	2
	SOUTHERN NATURAL GAS/SHADYSIDE	-	91	-	-	-
	CXY ENERGY INC/EUGENE ISL BLK	-	-	-	631	-
	TRUNKLINE GAS CO/PATTERSON STA	-	-	-	8,786	-
	VASTAR RESOURCES/BAYOU SALE	-	5	-	-	-
	TEXACO PIPELINES LLC/FLOODWAY	-	459	-	-	-
	GULFPORT ENERGY CORP/W COTE BL	-	13	-	-	-
	VASTAR RESOURCES INC/C B GARDE	-	182	-	-	-
	ENERVEST OPERATING LLC/C B BAS	-	201	-	-	-
	BOISE CASCADE CORP/FLORIEN PLY	43	-	-	162	269
	ENTERPRISE GAS PROC LLC/N TERR	-	129	-	67	226
	TENNESSEE GAS PIPELINE-STATION	-	-	-	1,131	-
	WILLIAMS FIELD SERVICES/C.S. #	-	1,198	-	-	-
	TERREBONNE PAR CONSOLIDATED GO	-	467	-	-	-
	TEXACO E & P INC ONSHORE/LK BA	-	199	-	-	-
	TEXACO E & P INC/LK BARRE CS 2	-	202	-	-	-

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TEXACO E & P INC/C B DOG LAKE	-	-	-	-	198
	TEXACO E & P INC/CAILLOU ISLAN	-	-	-	292	-
	UNOCAL/S. LAKE PAGIE FIELD	-	133	-	-	-
	LA LAND & EXPLORATION CO/PASS	-	-	-	102	-
	WILLAMETTE IND/LILLIE DIVISION	-	-	-	140	169
	TEXACO PIPELINES LLC/HENRY GAS	-	1,083	-	401	155
	EL PASO FLD SRVCS/COW ISLAND	-	240	-	-	-
	SEA ROBIN PIPELINE CO/ERATH CO	-	851	-	-	-
	AMERADA HESS CORP/SEA ROBIN GA	-	520	-	-	-
	SABINE PIPE LINE CO/HENRY HUB	-	1	-	-	-
	GAYLORD CONTAINER CORPORATION	904	979	1,756	-	2,358
	SOUTHERN NATURAL GAS/FRANLINTO	-	1,167	-	-	-
	INTERNATIONAL PAPER CO/SPRINGH	4	-	-	70	-
	DUKE ENERGY FLD SRVCS LP/SPRIN	-	48	-	-	-
	MARATHON OIL CO/COTTON VALLEY	-	279	-	-	-
	DUKE ENERGY FLD SRVCS LP/MINDE	-	30	-	-	-
	SID RICHARDSON CARBON CO/ADDIS	207	236	-	197	1,804
	PLACID REFINING CO LLC/PT ALLE	-	-	320	7	1
	TRUNKLINE GAS CO/EPPS COMP STA	-	695	-	-	119
	CROWN PAPER CO/ST. FRANCISVILL	-	502	1	164	119
	TX EASTERN TRANS CORP/ST FRANC	-	359	-	-	-
	WEST FRASER SOUTH INC/JOYCE SA	306	883	-	292	795
	WILLAMETTE IND/DODSON DIV	-	-	-	38	121

Allowable Emissions Increases in Louisiana Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	ENERVEST OPERATING LLC/C B TIM	-	136	-	-	-
	TOTAL	**6,025**	**111,318**	**48,932**	**57,405**	**140,256**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule. Three facilities in Louisiana were eliminated from the calculation of CO emissions (Cabot Corp. Ville Platte and Canal, and Columbian Chemical North Bend) because they report such unusually high levels of CO emissions in the period from 1994 to 1996. These are marked "NR". Including these facilities significantly increases the potential increase for the state (i.e., to 497,663 tons).

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Maine Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering. Time period analyzed: 1992-2000	FRASER PAPER LIMITED	-	311	627	-	-
	MCCAIN FOODS INC - RICHARDSON ROAD	-	-	79	-	-
	S D WARREN CO - WESTBROOK	-	903	1,577	439	1,053
	REGIONAL WASTE SYSTEMS INC	-	9	-	-	-
	OTIS SPECIALTY PAPERS INC	-	-	131	-	-
	INTERNATIONAL PAPER CO - ANDROSCOGGIN	2,124	1,277	3,591	45	183
	CHAMPION INTERNATIONAL CORP - BUCKSPORT	-	388	593	-	60
	KEYES FIBRE COMPANY	-	-	192	-	-
	FMC CORP - FOOD INGREDIENTS DIVISION	-	-	124	115	-
	DRAGON PRODUCTS CO INC - THOMASTON	52	263	215	-	95
	BOISE CASCADE PAPER COMPANY	686	1,393	1,010	251	1,454
	EASTERN FINE PAPER INC	-	15	327	-	-
	LINCOLN PULP AND PAPER CO INC	-	220	148	-	632
	JAMES RIVER PAPER CO INC - OLD TOWN	-	298	3,178	-	693
	GREAT NORTHERN PAPER INC - WEST (MILL)	70	-	936	-	-
	GREAT NORTHERN PAPER INC - EAST	-	197	-	12	177
	IRVING TANNING COMPANY	-	-	-	436	-
	MADISON PAPER INDUSTRIES	-	22	165	-	-
	S D WARREN CO - SKOWHEGAN	-	391	1,550	-	827
	NAVAL COMPUTER & TELECOMM STA - CUTLER	-	2	-	-	-
	GEORGIA-PACIFIC CORP - WOODLAND	-	70	161	-	-
	GEORGIA-PACIFIC CORP - OSB & CHIP-N-SAW	-	-	-	-	298
	PORTSMOUTH NAVAL SHIPYARD	-	-	151	-	-
	MAINE ENERGY RECOVERY COMPANY	-	17	-	-	-

Allowable Emissions Increases in Maine Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TOTAL	**2,932**	**5,776**	**14,755**	**1,298**	**5,472**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in New Jersey Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1993-2000	GARDEN STATE PAPER COMPANY, INC.	-	82	121	-	-
	BERGEN CTY. UTIL. AUTH. WSTEWTR TRT	-	-	-	1,155	-
	BERGEN COUNTY UTILITIES AUTHORITY	-	-	-	666	-
	SUN CHEMICAL CORPORATION - PIGMENTS	-	-	-	107	-
	GENERAL CHEMICAL CORPORATION	-	-	187	-	-
	AMERICAN REF-FUEL COMPANY OF ESSEX	-	1,106	720	-	36
	FRUTAROM MEER CORPORATION	-	-	-	100	-
	CAMPBELL FOUNDRY COMPANY	-	-	-	-	286
	DOLPH CO.,JOHN C.	-	-	-	60	-
	STAFLEX PRODUCTS	-	-	-	327	-
	HERCULES, INC.	-	281	-	-	432
	AMERADA HESS CORPORATION-PORT READING	-	-	-	726	-
	GATX TERMINALS CORPORATION	-	-	-	28	-
	CO-STEEL RARITAN	-	33	-	-	-
	MOTIVA ENTERPRISES LLC - SEWAREN TERMINAL	-	-	-	127	-
	CO-STEEL SAYREVILLE	-	325	-	137	1,454
	CHEVRON PRODUCTS COMPANY	-	174	337	23	-
	FORD MOTOR COMPANY EDISON ASSEMBLY	-	-	-	150	-
	HOFFMAN LAROCHE INC. C/O ENVIRON.AFFAIRS	-	243	-	-	-
	MERCK & CO., INC.	-	566	-	149	-
	BAYWAY REFINING COMPANY	-	953	100	215	59
	GENERAL MOTORS LINDEN ASSEMBLY	-	-	-	493	-
	UNION COUNTY RESOURCE RECOVERY FACI	-	306	-	-	-
	HOEGANAES CORPORATION	-	-	-	-	26

Allowable Emissions Increases in New Jersey Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	BURLINGTON COUNTY RESOURCE RECOVERY	27	-	-	-	-
	GRIFFIN PIPE PRODUCTS CO.	506	61	-	29	686
	U.S. PIPE & FOUNDRY COMPANY, INC.	-	-	-	9	-
	SYBRON CHEMICALS, INC.	-	-	-	18	-
	AFG INDUSTRIES INC.; CINNAMINSON	-	189	-	-	-
	ALUMINUM SHAPES, L.L.C.	-	60	-	-	-
	PENNSAUKEN SANITARY LANDFILL	-	-	-	-	32
	JOHNS MANVILLE INTERNATIONAL, INC	-	-	-	-	46
	CAMDEN COUNTY ENERGY RECOVERY ASSOC	-	403	-	-	-
	MONSANTO COMPANY	-	-	-	150	-
	COASTAL EAGLE POINT OIL COMPANY	-	1,857	1,592	357	357
	ST SERVICES - PAULSBORO TERMINAL	-	-	-	227	-
	REVERE INDUSTRIES, LLC; EKCO PRODUCTS	-	-	-	126	-
	REPAUNO PRODUCTS, LLC	-	335	-	-	-
	VALERO REFINING CO.- N.J.	-	-	188	980	11
	ANCHOR GLASS CONTAINER CORPORATION	-	212	213	-	-
	BAYSIDE AND SOUTHERN STATE PRISON	161	-	-	-	423
	KIMBLE GLASS INC.	-	15	-	-	-
	WHEATON, INC.	-	78	-	-	-
	LEONE INDUSTRIES, INC.	-	232	-	-	-
	TEXAS EASTERN TRANSMISSION CORPORATION	-	136	-	-	-
	ROCHE VITAMINS INC	-	4	864	-	117
	COVANTA WARREN ENERGY RESOURCE CO.	-	53	-	-	-
	TOTAL	**694**	**7,703**	**4,323**	**6,359**	**3,964**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in New York Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR Time period analyzed: 1996-2001	HEMPSTEAD RESOURCE RECOVERY FACILITY	-	143	47	-	-
	BABYLON RESOURCE RECOVERY FACILITY	-	300	79	-	-
	110 CLEAN FILL DISPOSAL SITE	-	-	26	-	-
	HUNTINGTON RESOURCE RECOVERY FACILITY	-	29	-	-	-
	ISLIP MCARTHUR RESOURCE RECOVERY FACIL	-	29	44	-	-
	BLYDENBURGH ROAD LANDFILL	-	-	-	-	84
	NYC-DOC - RIKERS IS	-	294	295	-	-
	NYC-DEP NEWTOWN CREEK WPCP	-	1,278	-	-	-
	NYC-DEP OWLS HEAD WPCP	-	384	-	-	-
	STARRETT CITY POWER PLANT	-	56	-	-	-
	NYC-DEP NORTH RIVER WPCP	-	404	-	-	-
	MUTUAL REDEVELOPMENT HOUSES	-	61	-	-	-
	CENTRAL PLANT - 251 MERCER ST	-	142	-	-	-
	NYC-DEP TALLMAN ISLAND WPCP	-	104	-	-	-
	STATEN ISLAND LANDFILL	134	7	-	295	23
	DANSKAMMER GENERATING STATION	-	942	779	-	-
	METAL CONTAINER CORP	-	-	-	398	-
	TESA TAPE - MIDDLETOWN	-	-	-	451	-
	REVERE SMELTING & REFINING CORP	-	57	483	-	-
	NEPERA INC	-	15	-	-	112
	WYETH RESEARCH	-	295	-	-	27
	PAXAR CORP SYSTEMS GROUP	-	-	-	57	-
	NORTHEAST SOLITE CORPORATION	-	74	291	-	-

Allowable Emissions Increases in New York Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	HYDRO ALUMINUM NORTH AMERICA	-	-	7	3	-
	CHARLES POINT RESOURCE RECOVERY FACILITY	129	485	959	-	106
	ALBANY LANDFILL	-	-	-	-	95
	NORLITE CORP	25	-	-	-	-
	OWENS-CORNING DELMAR PLANT	58	239	-	-	-
	GENERAL ELECTRIC SELKIRK PLASTICS PLT	-	12	-	103	-
	LAFARGE BUILDING MATERIALS INC	20	6,171	-	-	166
	COLONIE - T LANDFILL	-	-	-	-	64
	ST LAWRENCE CEMENT CORP-CATSKILL QUARRY	191	1,347	-	-	-
	KEYMARK CORP PLANT	-	-	-	114	-
	BASF CORP CHEMICALS DIV	-	-	89	-	-
	BENNINGTON PAPERBOARD CO	-	-	43	-	-
	SCHENECTADY INTERNATIONAL/ROTT JCT FAC	-	-	-	82	-
	INTERNATIONAL PAPER TICONDEROGA MILL	316	-	1,210	-	-
	MILLIGAN & HIGGINS	-	-	21	-	-
	GE SILICONES WATERFORD FACILITY	-	18	-	42	-
	FINCH PRUYN & CO	-	461	194	-	289
	GLENS FALLS LEHIGH CEMENT COMPANY	-	163	-	-	-
	ADIRONDACK RESOURCE RECOVERY FAC	-	20	-	-	-
	TENNESSEE GAS PIPELINE COMPANY	-	123	-	-	80
	NEWSTECH NY INC	-	410	1,088	93	-
	CORNING INC CANTON PLANT	392	32	-	-	-
	ALCOA MASSENA OPERATIONS (WEST PLANT)	135	61	55	-	45

Allowable Emissions Increases in New York Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	REYNOLDS METALS ST LAWRENCE REDUCTION PL	247	-	108	-	2,191
	NUCOR STEEL AUBURN INC	-	-	-	-	117
	WABASH ALUMINUM ALLOYS LLC	-	-	-	-	21
	GENERAL CHEMICAL CORP- SYRACUSE WORKS	-	287	-	-	-
	ALCAN ALUMINUM CORPORATION	35	26	-	-	32
	OSWEGO CO ENERGY RECOVERY FAC	-	3	315	-	-
	OWENS-BROCKWAY VOLNEY PLANT 25	-	204	826	-	-
	CORNELL UNIVERSITY MAIN CAMPUS	-	-	22	-	-
	ANCHOR GLASS CONTAINER CORP	-	522	-	-	-
	KODAK PARK DIVISION	753	3,221	2,069	469	-
	FRANK E VAN LARE WASTEWATER TREATMENT	-	-	-	-	23
	CRYOVAC INC	-	-	-	114	-
	HIGH ACRES LANDFILL AND RECYCLING CENTER	-	-	-	-	35
	UNIVERSITY OF ROCHESTER	-	268	1,503	-	-
	PACTIV CORPORATION	-	-	-	11	-
	CARGILL SALT CO-WATKINS GLEN PLANT	-	2	467	-	182
	CORNING INC - FALLBROOK PLANT	-	-	-	-	5,108
	WOODHULL STATION	-	94	-	-	-
	PLIANT CORPORATION	-	-	-	234	-
	GARLOCK SEALING TECHNOLOGIES	-	-	-	345	-
	TENNECO GAS COMPRESSOR STATION 224	-	-	-	-	177
	OUTOKUMPU AMERICAN BRASS BUFFALO PLANT	-	-	-	-	213
	BIRD ISLAND STP	-	-	-	-	139

Allowable Emissions Increases in New York Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	BETHENERGY LACKAWANNA COKE DIVISION	121	395	1,418	108	65
	TENNECO GAS COMPRESSOR STATION 229	-	289	-	-	173
	BETHLEHEM STEEL - GALVANIZED PRODUCTS	-	-	-	-	1,303
	WHITING ROLL-UP DOOR MFG CORP	154	-	-	-	-
	CHAFFEE LANDFILL	-	-	-	-	153
	GOODYEAR DUNLOP TIRES NORTH AMERICA LTD	-	-	74	-	-
	GM POWERTRAIN - TONAWANDA ENGINE PLANT	-	-	-	-	555
	TONAWANDA COKE CORP	-	23	76	-	-
	3M TONAWANDA	-	-	-	64	-
	THE CARBIDE/GRAPHITE GROUP INCORPORATED	153	-	74	-	4,467
	DUPONT COMPANY	-	78	-	74	-
	SGL CARBON LLC	-	-	-	-	839
	GLOBE METALLURGICAL INC	20	22	97	-	654
	AMERICAN REF-FUEL CO NIAGARA,PL	-	395	1,061	-	295
	WPS EMPIRE STATE - NIAGARA FALLS	-	371	-	-	290
	MODERN LANDFILL INC	-	-	-	92	140
	MORTON SALT DIV	-	32	154	-	-
	TOTAL	**2,883**	**20,388**	**13,974**	**3,149**	**18,263**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.

2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1991-2000	ZINC CORP AMER/MONACA SMELTER	85	1,134	-	-	-
	3M CO/BRISTOL	-	-	-	261	-
	PPG IND INC/WORKS 8	-	156	-	-	-
	DOMINION TRANS INC/HARRISON STATION	-	426	-	-	-
	PGH CORNING CORP/PORT ALLEGANY	-	161	-	-	-
	LATROBE STEEL CO/LATROBE PLT	-	18	-	-	430
	PENN COLOR/DOYLESTOWN	-	-	-	44	-
	PQ CORP/CHESTER	-	121	-	-	-
	LWB REFRACTORIES CO/W MANCHESTER	-	1,053	490	-	-
	KOPPEL STEEL CORP/KOPPEL	-	21	-	-	2,131
	ALTADIS USA INC/MCADOO PLT	-	-	325	-	-
	DUFERCO FARRELL CORP/FARRELL PLT	-	-	88	-	2,471
	CARBIDE GRAPHITE GRO/ST MARYS	-	-	-	-	2,567
	PROCTER & GAMBLE PAPER PROD CO/MEHOOPANY	233	1,170	5,782	808	408
	PENNZOIL WAX PARTNER/ROUSEVILLE PLT	-	147	726	284	-
	LANGELOTH METALLURGICAL/LANGELOTH	-	-	97	-	-
	PA DPW/SELINSGROVE CTR	-	-	244	-	-
	GEO SPECIALTY CHEM/TRIMET PROD GROUP	-	-	7	-	-
	TRIMET TECH PROD INC/ALLENTOWN	-	-	7	-	-
	KIMBERLY CLARK PA LLC/CHESTER OPERATIONS	-	107	83	-	-
	TRANSCONTINENTAL GAS/FRAZER STA 200	-	2,376	-	259	123
	CONGOLEUM CORP/TRAINER PLT	-	-	-	58	-
	DART CONTAINER CORP/LEOLA	-	-	-	62	-
	VILLAGE FARMS/RINGGOLD	-	166	-	-	-
	ALUMAX MILL PROD INC/MILL PROD	1	45	-	447	-
	INMETCO/ELLWOOD CITY	32	-	-	-	-
	BOYERTOWN FOUNDRY CO/FKA EAFCO	-	-	-	-	10

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	RR DONNELLEY & SONS CO/NORTHEASTERN DIV LANCASTER EAST	-	-	-	359	-
	MACK TRUCKS INC/MACUNGIE	-	-	87	-	-
	APPLETON PAPERS/SPRING MILL	-	246	647	-	57
	BETHLEHEM STEEL CORP/CONSHOHOCKEN	-	73	-	-	-
	J & L SPECIALTY STEEL/MIDLAND	27	583	-	91	3,392
	TENNESSEE GAS PIPELINE CO/313 COUDERSPORT	-	2,644	-	-	567
	REPUBLIC TECH INTL LLC/JOHNSTOWN	-	171	-	-	2,391
	DOMINION PEOPLES/VALLEY STA	-	307	-	-	-
	DOMINION PEOPLES/GIRTY STA	-	259	-	-	-
	ALLEGHENY LUDLUM COR/WEST LEECHBURG	6	44	406	-	-
	PBS COAL INC/SHADE CREEK PLT	19	24	108	-	116
	DOMINION TRANS INC/LEIDY STATION	-	1,865	-	-	-
	DOMINION TRANS INC/FINNEFROCK STATION	-	507	-	-	-
	NOVA CHEM CO/BEAVER	-	-	-	773	-
	WHEATLAND TUBE CO DI/WHEATLAND TUBE DIV	-	-	-	49	-
	ESSROC/BESSEMER	213	2,360	1,309	-	-
	MERISOL ANTIOXIDANTS/OIL CITY	-	-	-	153	-
	CRYOVAC INC/CRYOVAC RIGID PACKAGING	-	-	-	6	-
	ROHM & HAAS CO/BRISTOL	-	-	79	-	-
	ROHM & HAAS DELAWARE/BRISTOL	-	-	79	-	-
	KULP FOUNDRY/EAST STROUDSBURG	-	-	-	-	290
	LANCASTER CNTY SOLID/LANCASTER RRF	-	43	-	-	-
	CEMEX INC/WAMPUM CEMENT PLT	939	435	2,220	-	6
	UNION ELEC STEEL COR/HARMON CREEK	-	-	-	-	355
	FROG SWITCH & MFG CO/CARLISLE	-	-	-	-	286
	PA DEPT OF ED/INDIANA UNIV	-	2,143	-	-	19

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	ELECTRALLOY GO CARLS/OIL CITY	-	-	-	-	417
	GO CARLSON INC/OIL CITY	-	-	-	-	417
	RESILITE SPORTS PROD/NORTHUMBERLAND PLT	-	-	-	322	-
	TRANSCONTINENTAL GAS/BEAR CREEK STA 515	-	608	-	-	-
	TECHNEGLAS INC/PITTSTON	-	904	-	-	-
	WARD MFG INC/BLOSSBURG PLTS 1-3	272	-	-	-	36
	MERCK & CO/WEST POINT	-	135	-	-	223
	N AMERICAN HOGANAS INC/STONY CREEK PLT	-	-	-	-	1,127
	NATL FORGE CO/ERIE PLT	-	-	-	-	480
	ANCHOR GLASS CONTAIN/PLANT 5	-	281	91	-	-
	DOMINION TRANS INC/ROCHESTER MILLS	-	50	-	-	-
	DOMINION TRANS INC/SOUTH BEND	-	1,656	-	-	-
	WASTE MGMT DSPL SVC /GROWS LDFL	-	-	-	67	-
	DONSCO INC/WRIGHTSVILLE	-	-	-	-	282
	TEXAS EASTERN TRANS /HOLBROOK STATION	-	2,660	-	-	257
	PA LIME INC/HANOVER LIME PLT	-	80	80	-	-
	CON LIME INC/BELLEFONTE	-	147	386	-	32
	PA STATE SYS OF HIGHER ED/SLIPPERY ROCK UNIV PA	-	-	160	-	-
	CARMEUSE LIME INC/MILLARD LIME PLT	-	411	234	-	-
	PPG IND INC/WORKS NO 6	41	2,156	381	-	-
	UNITED REFINING CO/WARREN PLT	33	623	1,156	64	-
	BETHLEHEM STEEL CORP/HOUSTON PLT	2	-	-	-	-
	PA STATE UNIV/UNIV PARK CAMPUS	-	239	655	-	76
	CORNING ASAHI VIDEO /STATE COLLEGE	-	478	-	-	215
	MERCK & CO/CHEROKEE PLT	156	381	1,274	182	-
	DUPONT & CO INC/TOWANDA	-	-	-	436	-
	KOPPEL STEEL CORP/AMBRIDGE	-	-	-	-	1,159

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	PH GLATFELTER CO/SPRING GROVE	253	368	757	-	1,131
	KOPPERS IND/MONESSEN	100	68	577	174	-
	PENRECO/KARNS CITY	-	-	356	329	-
	DOMINION TRANS INC/ELLISBURG STATION	-	1,312	-	-	-
	GE CO/ERIE PLT	-	638	659	-	15
	AMERICAN REFINING GROUP/BRADFORD	-	17	226	30	-
	JOHNSTOWN CORP/JOHNSTOWN	-	-	-	34	-
	LONE STAR IND INC/NAZARETH PLT	59	1,787	1,895	-	-
	ESSROC/NAZARETH CEMENT PLT	59	1,787	1,895	-	-
	ESSROC/NAZARETH LOWER CEMENT PLT	-	1,374	1,440	-	-
	OCCIDENTAL CHEM CORP/POTTSTOWN	-	350	531	-	-
	ARMSTRONG CEMENT & SUPPLY/WINFIELD	884	91	1,834	-	-
	WESTVACO/TYRONE PLT	-	-	398	-	-
	WEYERHAEUSER/JOHNSONBURG MILL	255	203	2,291	-	536
	LEHIGH CEMENT CO /EVANSVILLE CEMENT PLT	271	1,282	776	-	339
	ALLENTOWN CEMENT CO /EVANSVILLE	271	1,282	776	-	339
	INTL PAPER CO/ERIE MILL	-	756	378	541	1,086
	MERCER LIME & STONE /BRANCHTON	-	6	330	-	43
	WHEELING PGH STEEL/MONESSEN	100	68	577	174	-
	INDSPEC CHEM CORP/PETROLIA	-	275	-	301	-
	INDSPEC CHEM CORP/PETROLIA	-	275	-	301	-
	HORSEHEAD RESOURCE DEV/PALMERTON FAC	-	59	22	87	-
	KITTANNING BRICK CO/REESEDALE	590	-	-	-	-
	INTL PAPER CO/LOCK HAVEN MILL	-	266	661	-	118
	CRAFTMASTER MFG/TOWANDA MILL	-	-	-	-	154
	PA DPW/TORRANCE STATE HOSP	-	-	172	-	-
	TEXAS EASTERN GAS PI/LILLY STA	-	58	-	-	-

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TEXAS EASTERN TRANS /DELMONT	-	653	-	-	-
	DYNO NOBEL INC/DONORA	60	25	-	-	-
	LAFARGE CORP/WHITEHALL PLT	46	204	-	-	20
	US STEEL CORP/FAIRLESS HILLS	-	851	459	-	-
	JESSOP STEEL CO/WASHINGTON	-	4	-	-	-
	WASHINGTON STEEL COR/WASHINGTON	-	288	-	-	-
	CARBONE AMER/BTP	-	-	150	-	23
	CONSOL PA COAL CO/BAILEY PREP PLT	-	-	116	-	-
	TENNESSEE GAS PIPELINE CO/PIGEON STA 307	-	1,180	-	-	28
	OWENS BROCKWAY GLASS CLARION	-	33	56	-	-
	WHEATLAND TUBESHARON PLT	-	-	-	5	-
	TENNESSEE GAS PIPELINE CO/MERCER STA 219	-	2,040	-	-	-
	PETROWAX PA INC/EMLENTON	-	109	615	182	-
	HONEYWELL INTL INC/EMLENTON PLT	-	109	615	182	-
	CARBONE AMER/BENZINGER TWP PLT	-	-	150	-	23
	HONEYWELL INTL INC/FARMERS VALLEY	-	74	317	120	-
	SUNOCO INC (R&M)/MARCUS HOOK REFINERY	71	1,522	514	3,614	345
	CONOCOPHILLIPS CO/TRAINER REF	6	188	2,763	2,549	236
	STONE CONTAINER CORP/YORK MILL	-	-	240	-	-
	STONE CONTAINER CORP/YORK MILL	-	-	240	-	-
	LEHIGHCEMENT/YORK OPERATIONS	-	132	-	-	-
	HANOVER FOODS CORP/HANOVER CANNERY	-	-	153	-	-
	GE CO/GROVE CITY	-	287	-	-	-
	BUCKNELL UNIV/LEWISBURG CAMPUS	-	-	702	-	-
	SAINT GOBAIN CONTAINERS/PORT ALLEGANY BORO	-	218	4	-	-
	TRANSCONTINENTAL GAS/STATION 195	-	719	-	-	-

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TEXAS EASTERN TRANS/PERULACK	-	166	-	-	-
	TEXAS EASTERN TRANS/GRANTVILLE	-	34	-	-	-
	TEXAS EASTERN TRANS/BEDFORD	-	927	-	-	-
	TEXAS EASTERN TRANS/MARIETTA	-	615	-	-	-
	TEXAS EASTERN GAS PI/MARIETTA	-	615	-	-	-
	BUCK CO INC/QUARRYVILLE	-	-	-	37	-
	ANVIL INTL INC/COLUMBIA FKA GRINNELL	124	-	-	-	-
	ALCOA INC/LEBANON WORKS	-	-	-	298	62
	BETHLEHEM STEEL CORP/STEELTON STEEL PLT	-	96	167	43	4,465
	LANCASTER MALLEABLE /MANHEIM-KELLER	-	-	91	-	9
	NORFOLK SOUTHERN RAI/JUNIATA LOCOMOTIVE SHOPS	-	-	526	-	-
	CARPENTER TECH CORP/READING PLT	100	84	-	38	828
	YORK CNTY SOLID WAST/YORK COUNTY RESOURCE RECOVERY	-	55	-	-	26
	SUPERIOR TUBE CO/LOWER PROVIDENCE	-	-	-	24	-
	SONOCO PROD CO/DOWNINGTOWN	-	87	26	-	-
	HARRISBURG STEAM GEN/MUNICIPAL WASTE INCINERATION	-	130	54	-	-
	EXIDE TECH/READING SMELTER	-	-	96	-	-
	STD STEEL/BURNHAM	-	42	-	-	1,265
	KEYSTONE PORTLAND CE/EAST ALLEN	-	244	314	-	-
	CABOT CORP DIV KBI/BOYERTOWN	-	-	-	176	-
	WHEELABRATOR FALLS INC/FALLS TWP	-	129	38	-	-
	REPUBLIC SVC GROUP O/MODERN LDFL	-	-	-	32	-
	ARMSTRONG WORLD IND /FLOOR PLT	-	-	74	1,040	-
	HARRISBURG AUTH/MUNICIPAL INCINERATOR	-	130	54	-	-

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	MONTENAY ENERGY RESO/PLYMOUTH	-	295	-	-	-
	STONEY CREEK TECH/TRAINER	-	-	-	938	-
	BETHLEHEM STEEL CORP/COATESVILLE	9	82	79	11	5,297
	QUEBECOR WORLD INC/ATGLEN	-	-	-	110	-
	AMER REF FUEL CO OF /DELAWARE VALLEY RES REC	-	-	-	-	7,131
	GRAYMONT PA INC/BELLEFONTE PLANT N THOMAS ST	18	159	-	-	38
	GRAYMONT PA INC/PLEASANT GAP PLT	-	725	-	-	-
	ARMCO INC/BUTLER OPERATIONS	-	194	-	-	219
	OWENS BROCKWAY GLASS/CRENSHAW	-	247	59	-	-
	OWENS BROCKWAY GLASS/BROCKWAY	-	141	-	-	-
	SPRINGS WINDOW FASHIONS/MONTGOMERY FAC	-	-	-	333	-
	CRODA INC/DRAKETOWN ROAD	-	-	-	73	-
	TEMPLE INLAND FOREST/MT JEWETT COMPLEX	-	164	-	-	-
	PINE GROVE LDFL INC/PINE GROVE LANDFILL	-	-	25	-	-
	GRAND CTL SANI LDFL /PLAINFIELD	-	-	-	-	69
	TEMPLE INLAND FOREST/CLARION	222	-	-	-	-
	DOMINION TRANS INC/OAKFORD STA	-	636	-	-	-
	ERIE COKE CORP/ERIE PLT	145	-	275	93	58
	ERIE COKE CORP/ERIE PLT	145	-	275	93	58
	COOPER BESSEMER RECI/GROVE CITY	113	-	-	652	-
	ERIE FORGE & STEELERIE PLT	-	-	-	-	480
	HERCULES CEMENT CO/STOCKERTOWN	42	1,481	-	-	-
	ALCOA EXTRUSIONS INC/CRESSONA OPR	-	10	-	-	-
	SILBERLINE MFG CO/LINCOLN DR PLT	-	-	-	25	-
	KEYSTONE RECOVERY INC/KEYSTONE RECOVERY INC	-	13	-	-	28
	BETHLEHEM CITY/L SAUCON	-	-	-	151	-

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	AMER VIDEO GLASS CO/MT PLEASANT PLT	-	43	-	-	-
	KEYSTONE SANI LDFL I/DUNMORE	-	-	89	108	99
	ALLEGHENY LUDLUM COR/WASHINGTON FLATROLL	-	288	-	-	-
	JOHNSON MATTHEY INC/CATALYTIC SYSTEMS DIV	-	-	-	-	173
	CABOT PERFORMANCE MATERIALS/BOYERTOWN	-	-	-	176	-
	SILBERLINE MFG CO/LANSFORD PLT	-	-	-	115	-
	MONTENAY MONTGOMERY /PLYMOUTH	-	295	-	-	-
	WASTE MGMT DSPL SVC /POTTSTOWN	-	41	-	-	44
	GRINNELL CORP/COLUMBIA	124	-	-	-	-
	PENNTECH PAPERS/JOHNSONBURG	255	203	2,291	-	536
	ZINC CORP AMER/POTTER TWP	85	1,134	-	-	-
	RHODIA INC (NOW RHON/OIL CITY	-	-	-	153	-
	NORTH AMER CARBON IN/ST MARYS	-	-	-	-	2,567
	CROMPTON CORP/BRADFORD	-	17	226	30	-
	CROMPTON CORP/TRAINER	-	-	-	938	-
	CONSOL COAL CO/BAILEY PREP PLT	-	-	116	-	-
	OGDEN MARTIN SYS LAN/LANCASTER SWMA	-	43	-	-	-
	WARD MFG INC/PCD DIVISION PLTS 1 & 3	272	-	-	-	36
	LANGELOTH METALLURGI/LANGELOTH	-	-	97	-	-
	WR GRACE & CO/FORMPAC	-	-	-	6	-
	ANCHOR GLASS CONTAIN/SOUTH CONNELLSVILLE	-	281	91	-	-
	EAFCO INC/EASTERN FOUNDRY	-	-	-	-	10
	LAFARGE CORP/WHITEHALL	46	204	-	-	20
	GROWS/FALLS TWP	-	-	-	67	-
	CONSOLIDATED RAIL CO/JUNIATA SHOPS	-	-	526	-	-
	BAKER REFRACTORIES/YORK AND DBCA	-	1,053	490	-	-

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	TARMAC MINERALS INC /MILLARD LIME PLT	-	411	234	-	-
	YORK RESOURCE ENERGY/YORK COUNTY RESOURCE RECOVERY	-	55	-	-	26
	EMAI INC/BESSEMER OPERATIONS	213	2,360	1,309	-	-
	ALLEGHENY LUDLUM COR/WEST LEECHBURG	6	44	406	-	-
	J & L SPECIALTY PROD/MIDLAND	27	583	-	91	3,392
	LATROBE STEEL CO/LATROBE STEEL	-	18	-	-	430
	PENRECO INC/KARNS CTY	-	-	356	329	-
	ARCO CHEM CO/BEAVER	-	-	-	773	-
	CON LIME INC/BELLEFONTE	-	147	386	-	32
	MERISOL ANTIOXIDANTS/OIL CITY	-	-	-	153	-
	ALLEGHENY LUDLUM COR/HOUSTON-FITCH WORKS	2	-	-	-	-
	JOHNSTOWN CORP/JOHNSTOWN	-	-	-	34	-
	WASTE RESOURCE ENERG/DELAWARE CNTY RESOURCE RECOVER	-	-	-	-	7,131
	WARD MFG INC/PLANT 1	272	-	-	-	36
	COOPER IND/GROVE CTY	113	-	-	652	-
	MEDUSA CEMENT CO/WAMPUM	939	435	2,220	-	6
	TECHNEGLAS INC/PITTSTON	-	904	-	-	-
	WHEATLAND TUBE CO/WHEATLAND	-	-	-	49	-
	MALLINCKRODT CHEM IN/TRIMET TECH PROD DIV	-	-	7	-	-
	CAPARO STEEL CO/SHARON	-	-	88	-	2,471
	PENNZOIL PROD CO/ROUSEVILLE	-	147	726	284	-
	HERCULES CEMENT CO/STOCKERTOWN	42	1,481	-	-	-
	BP OIL INC/REFINERY	6	188	2,763	2,549	236
	CENTRE LIME & STONE /PLEASANT GAP	-	725	-	-	-
	CONSOLIDATED CIGAR C/MCADOO	-	-	325	-	-
	BAYWAY REF CO/MARCUS HOOK REF	6	188	2,763	2,549	236
	ALUMAX EXTRUSIONS IN/CRESSONA OPERATION	-	10	-	-	-

Allowable Emissions Increases in Pennsylvania Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	MEDUSA CRESCENT INC/WAMPUM CEMENT PLT	939	435	2,220	-	6
	SILBERLINE MFG CO/TIDEWOOD PLT	-	-	-	25	-
	AMER REF FUEL CO DE /DELAWARE CTY RESOURCE RECOVERY	-	-	-	-	7,131
	MACMILLAN BLOEDEL CL/CLARION	222	-	-	-	-
	MACMILLAN BLOEDEL CL/CLARION FIBERBOARD PLT	222	-	-	-	-
	LANGELOTH METALLURGI/LANGELOTH PLT	-	-	97	-	-
	IESI PA BETHLEHEM LD/BETHLEHEM FACILITY	-	-	-	151	-
	WHEATLAND TUBE DIVISION - SHARON PLANT	-	-	-	5	-
	AK STEEL CORP/BUTLER WORKS	-	194	-	-	219
	KEYSTONE SANI LDFL I/DUNMORE	-	-	89	108	99
	CALUMET LUBRICANTS C/ROUSEVILLE PLT	-	147	726	284	-
	HOWMET ALUM CASTINGS/BETHLEHEM PLT	-	-	-	13	-
	LACLEDE STEEL CO/FAIRLESS HILLS	-	25	-	-	-
	US DEPT DEFENSE/TOBYHANA ARMY DEPOT	-	-	53	-	-
	TOTAL	**9,793**	**70,172**	**61,693**	**27,157**	**69,745**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Vermont Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1992-2001	KIMBERLY-CLARK CORP.	-	-	143	-	-
	ETHAN ALLEN INC. (BEECHER FALLS DIV.)	-	-	-	34	-
	AMERICAN PAPER MILLS OF VERMONT	45	-	-	-	128
	ETHAN ALLEN INC. (ORLEANS DIV.)	-	-	-	30	-
	FIBERMARK	-	-	15	-	-
	RYEGATE ASSOCIATES	-	-	-	-	21
	TOTAL[2]	**45**	**0**	**158**	**64**	**149**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Allowable Emissions Increases in Wisconsin Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide

Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
Additional allowable increases in emissions without triggering NSR (tons per year) With the new baseline methodology that EPA has adopted, the following facilities can potentially further increase their emissions by the amounts indicated in the chart without triggering NSR. Time period analyzed: 1995-2001	AMERICAN PACKAGING CORPORATION	-	-	-	288	-
	CARDINAL FG	-	13	-	-	-
	UNIROYAL ENGINEERED PRODUCTS D	-	-	-	122	-
	WIS DOA / UW MADISON--CHARTER	-	44	69	-	12
	CITATION WISCONSIN CASTINGS-BR	-	-	-	156	232
	METAL CONTAINER CORPORATION	-	-	-	266	-
	GM- NAO JANESVILLE-TRUCK PLAT	-	-	163	189	-
	Goldschmidt Chemical Corporati	-	-	-	75	-
	Grede Foundries, Inc.	-	-	-	-	138
	MAYNARD STEEL CASTING COMPANY	202	-	-	-	27
	Milwaukee Gray Iron, LLC	-	-	-	-	4
	MILLER BREWING COMPANY MILWAUK	-	6	-	-	-
	BRIGGS & STRATTON CORP WAUWATO	-	-	-	-	534
	PPG INDUSTRIES-RESIN PLANT	-	-	-	1	-
	MMSD-JONES ISLAND WASTEWATER T	-	93	-	-	-
	PPG INDUSTRIES PAINT PLANT	-	-	-	154	-
	MMSD-SOUTHSHORE WASTEWATER TRE	-	19	-	-	-
	Charter Steel	-	-	-	-	114
	SAINT-GOBAIN CONTAINERS	-	281	123	-	-
	S.C. JOHNSON & SON, INC.(WAXDA	-	-	-	253	-
	CASE CORPORATION - RACINE FOUN	112	-	-	-	72
	CRUCIBLE MATERIALS CORP TRENT	-	-	-	101	-
	NAVISTAR INTERNATIONAL CORP	-	-	-	-	254
	J AND L FIBER SERVICES	-	-	-	58	-
	KOCH MATERIALS CO	-	-	-	103	-
	GREEN BAY PACKAGING INC MILL D	-	43	-	-	-
	FORT JAMES OPERATING COMPANY,	-	143	-	90	-
	INTERNATIONAL PAPER-DE PERE FA	-	-	141	-	-
	Fort James Operating Company	-	1,062	3,770	135	640

Allowable Emissions Increases in Wisconsin Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	WESTERN LIME CORPORATION	-	39	5	-	76
	DE PERE FOUNDRY INC	58	-	-	-	328
	TECUMSEH PRODUCTS CO-NEW HOLST	-	-	-	-	40
	BRILLION IRON WORKS INC	83	-	-	42	-
	MERCURY MARINE - Plants 3,4,10	-	-	-	161	-
	WESTERN LIME CORP - Eden Plant	-	-	100	-	-
	ROCKWELL LIME COMPANY	-	99	798	-	11
	Stora Enso No. Amer. - Niagara	-	132	413	-	65
	WAUPACA FOUNDRY INC-PLANT NO 4	64	-	-	-	28
	Stora Enso No. Amer. - Kimberl	-	302	802	-	-
	INTERNATIONAL PAPER, KAUKAUNA	179	349	-	-	138
	APPLETON COATED L.L.C.	-	159	2,264	-	1
	SIMMONS JUVENILE PRODUCTS CO	-	-	-	202	-
	AARROWCAST, INC.	53	-	-	-	-
	KOHLER CO-METALS PROCESSING CO	-	-	79	-	-
	WAUPACA FOUNDRY INC-PLANT NO 1	50	-	-	72	-
	WAUPACA FOUNDRY-PLANTS 2 & 3	28	-	-	233	474
	Bemis Films (Curwood, Inc.)	-	-	-	53	-
	Pechiney Plastic Packaging, In	-	-	-	241	-
	NEENAH FOUNDRY CO - PLANTS 2 A	71	-	72	126	-
	Pechiney Plastic Packaging, In	-	-	-	255	-
	GEORGIA-PACIFIC TISSUE-PLANT 1	-	-	-	168	-
	BANNER PACKAGING	-	-	-	109	-
	Pactiv Corporation	-	-	-	10	-
	CARDINAL FG	-	40	-	-	-
	SPARTA MFG CO INC	-	-	-	-	1,832

Allowable Emissions Increases in Wisconsin Under EPA's Final NSR Rule Published 12/31/02 (tons per year)

Facility-specific increases in emissions are above and beyond what would have been allowed under the old NSR rule.

	Applicability	Particulate Matter	Nitrogen Oxides	Sulfur Dioxide	VOCs	Carbon Monoxide
Allowable increase in emissions without triggering NSR (tons per year)[1] Major facilities that undertake a modification can increase their annual emissions by the quantities listed and avoid triggering NSR	ALL FACILITIES SUBJECT TO NSR	24	39	39	39	99
	VIKING GAS TRANSMISSION CO	-	85	-	-	-
	PACKAGING CORPORATION OF AMERI	-	544	30	1,058	8,292
	WAUSAU-MOSINEE PAPER CORPORATI	-	82	325	86	-
	MOSINEE PAPER CORP	-	142	37	9	2
	WEYERHAEUSER COMPANY	-	342	-	-	-
	RHINELANDER PAPER CO	-	334	619	201	-
	Stora Enso No. Amer.-Whiting M	-	80	44	-	42
	Stora Enso No. America-Biron M	-	2,770	5,931	-	480
	Stora Enso No. America-Wis. Ra	-	356	250	504	328
	Domtar A. W. Corp.-Port Edward	-	187	292	-	-
	Domtar A. W. Corp-Nekoosa	-	83	1,824	6	24
	ANR PIPELINE COMPANY - MARSHFI	-	154	-	-	-
	GREAT LAKES GAS TRANSMISSION-C	-	175	-	-	46
	MURPHY OIL USA	10	17	698	243	-
	C L M CORPORATION-SUPERIOR	-	45	161	-	-
	Fraser Papers Inc.	-	54	82	-	-
	LIONITE HARDBOARD	-	-	-	14	-
	LOUISIANA PACIFIC CORP-NORTHER	146	-	-	-	248
	TOTAL[2]	**1,056**	**8,274**	**19,092**	**5,784**	**14,482**

Note: A dash ("-") indicates a *possible* minor facility for the pollutant specified based on a review of the facility's actual reported emissions. A zero indicates no potential for increasing emissions relative to the old rule.

1. These thresholds reflect the pollutant specific significance levels specified in the NSR rule: 25 tons for PM, 40 tons for NOx, SO_2, and VOCs, and 100 tons for CO. In some cases, the significance threshold can be more stringent than the values listed above (e.g., the thresholds for NOx and VOCs are 25 tons in severe and serious ozone non-attainment areas). However, for the purposes of this analysis we always assume the thresholds listed.
2. Total represents the *additional* increase in emissions attributable to the adoption of the new NSR rule. The allowable increases available to all facilities (e.g., 24 tons for PM) remain the same for both the new rule and the old rule.

Appendix 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	Rarely	Never	No record of counting emissions from past malfunctions, startups, and shutdowns. However, permitters are not prohibited from considering such data if good reason exists to do so.
Illinois	75-90%	Sometimes	Very Rarely	No
Indiana	Majority	Sometimes	Never	No
Louisiana[1]				
Maine[1]				
New Hampshire[2]	Vast Majority	Very Rarely	Never	No
New Jersey	Majority	Very Rarely	Never	Technically, NJ counts these emissions because historical emissions data are based on fuel data. Thus, emissions released during startups, shutdowns and malfunctions are included. However, emissions that exceed permitted levels as a result of these occurrences are not allowed and are not counted. NJDEP generally uses annual fuel use/production data and multiplies that by the baseline (normal) emissions rate factor to calculate annual tons per year.
New York	80-90%	10-20%	Never	Start-up / shutdown emissions were not used in past baseline calculations unless source had continuous emissions monitor (CEMs) data available.
Pennsylvania	80-90%	10-20%	Never	Yes, to a level that is allowed under regulation/permit. Any emissions in excess of permitted levels are not included in the baseline, e.g., malfunction emissions. Start-up / shutdown emissions were not used in past baseline calculations unless source had CEMs data available.
Vermont	Vast Majority	Very Rarely	Never	No
Wisconsin	Vast Majority	Very Rarely	Never	Yes, to a level that is allowed under regulation/permit. Any emissions in excess of permitted levels are not included in the baseline.

1. Did not respond. 2. Not included in report, but responded to STAPPA/ALAPCO inquiry.

* Last revised October 20, 2003.

** In this particular case, the permitting authority reviewed an application submitted in 1997. The new units being permitted required internal as well as external offsets. The internal offsets were obtained from an existing unit at the facility that had not operated at its normal capacity since 1990. SIP-approved regulations prohibited the use of emissions data prior to 1990. The permitting authority reviewed emissions data from 1986 to 1990 to ensure that 1990 emissions were representative for the purpose of generating offsets.

Appendix C
External Review

1. National Academy of Public Administration

2. William R. Moomaw, Professor of International Environmental Policy, The Fletcher School, Tufts University

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION
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September 10, 2003

Lee Wasserman
Executive Director
Rockefeller Family Fund
437 Madison Avenue, 37th Floor
New York, NY 10022

Dear Mr. Wasserman:

You have requested that the National Academy of Public Administration (the Academy) provide technical assistance to the Rockefeller Family Fund by reviewing the recent study of the Environmental Integrity Project (EIP) and the Council of State Governments/Eastern Regional Conference (CSG/ERC), entitled Reform or Rollback? How EPA's Changes to New Source Review Affect Air Pollution in 12 States. EIP-CSG/ERC's study evaluates the potential for increased air emissions due to a provision of the EPA's revised New Source Review (NSR) rule, as announced on December 31, 2002. Specifically, you have asked the Academy's NSR Panel to evaluate the EIP-CSG/ERC's methodology and conclusions about the environmental impacts that may arise due to EPA's change from a 2-year lookback to a 10-year lookback for calculating a significant increase in emissions and determining the applicability of NSR requirements.

The Academy's NSR Panel recently completed a thorough evaluation of the NSR program at the request of Congress and published A Breath of Fresh Air: Reviving the New Source Review Program in April 2003. The Panel concluded that the NSR program is an essential tool for the states and EPA to reduce air pollution from major stationary sources and that Congress intended for NSR to reduce emissions through development and application of cleaner technologies as older, more polluting equipment wears out and is replaced or modernized over time (Panel Report, p. 109).

While the Panel found that EPA's prior NSR rules work fairly well for newly built sources (ibid.), it identified several administrative difficulties with the structure and implementation of the program as applied to existing sources, thus preventing NSR from working as Congress intended. The Panel particularly noted that effective administration of NSR is greatly hampered by pervasive data gaps, inadequate monitoring and reporting of emissions data, difficulty in obtaining permit information, and undue reliance on industry self-determinations (id. at pp. 117 and 120, Findings 10 and 13). The Panel then found that these inadequacies have handicapped the ability of air agencies to monitor compliance by industry and have provided broad regulatory loopholes enabling existing sources to avoid NSR's requirements (id. at pp. 116 - 119, Finding 9 and 11).

As you requested, the Panel has now examined the EIP-CSG/ERC report dated July 28, 2003, along with additional results and data corrections supplied by EIP and CSG/ERC that will be included when its final report is sent to EPA. The Panel concludes that EIP-CSG/ERC's study presents an appropriate, reasonable, and fair methodology for determining the environmental impacts of the new 10-year lookback rule. The Panel also finds that EIP-CSG/ERC's methodology and analysis support the report's conclusion that the new rule "could allow significant increases in emissions," which "will often not be limited by other federal programs absent NSR" (EIP-CSG/ERC's Executive Summary, p.1-1).

To determine whether emissions would increase if sources are allowed to use a 10-year lookback for their baselines -- rather than the prior rule's lookback, which allowed only the most recent two years – EIP and CSG/ERC obtained emission inventories from 12 states. EIP and CSG/ERC then sorted these emission data by pollutant to eliminate facilities that would not be subject to NSR because they are not "major." EIP and CSG/ERC also did not include data on power plant emissions because they are not covered by the 10-year lookback provision.

For each major source, EIP and CSG/ERC approximated the calculations that facilities would use for the 10-year lookback to determine whether physical or operational changes would trigger NSR. For each of these facilities, EIP and CSG/ERC selected the highest average levels of emissions during a consecutive 24-month period over the last ten years. EIP and CSG/ERC then compared those figures with the emission baselines that facilities would have used under EPA's prior 2-year lookback. EIP-CSG/ERC's comparison revealed that the 10-year lookback could allow facilities to increase emissions by several million tons per year without triggering NSR's requirement to reduce emissions and upgrade their technologies.

The Panel notes that EIP-CSG/ERC's choice of the 12 states to be included in the study was limited by time and resource constraints, as well as by availability of accurate emission inventory data. Consequently, no western states are represented, and eastern states predominate. As a result, the 12 states included in EIP-CSG/ERC's calculations may not be a true cross-section of the nation's emission levels, and EIP-CSG/ERC's results cannot properly be extrapolated to the rest of the country. It is clear, however, that EIP-CSG/ERC's calculations for just these 12 states accurately predict that the new 10-year lookback rule could produce significant increases in emissions.

> The Panel believes that EIP-CSG/ERC's methodology for determining whether the 10-year lookback could lead to significant emission increases is a straightforward, appropriate, and relatively simple way to evaluate the potential environmental effects of EPA's new rule. This analysis certainly could be useful for quantifying the environmental impacts of the 10-year lookback if EPA would agree to replicate it using the emission inventories of all 50 states.

The Panel also notes that, in several respects, EIP-CSG/ERC's study is conservative in its analysis and in deciding what emission data to include. First, in determining what constitutes "major" sources, EIP and CSG/ERC mostly used emissions from sources emitting more than 250 tons per year (unless a unit was clearly in a specific category that is major when it emits more

than 100 tpy), rather than the larger number of sources emitting 100 tpy that could have been included in the states with nonattainment areas. If EIP and CSG/ERC had included even more major sources, its calculations likely would predict even greater emission increases. Second, many of the 12 states did not have data for all of the past ten years, but EIP and CSG/ERC were able to obtain at least six years of past data from the states that did not have ten years of data. EIP and CSG/ERC then used the highest two years for as far back as state emission data were available, but never less than six years in the past.

Consequently, the Panel believes that actual emission increases in the 12 states due to the 10-year lookback could be even higher than EIP and CSG/ERC have calculated. These greater increases could occur if facilities seeking to avoid NSR could each generate a full ten years of data and then use as their baselines any higher emission levels from another two-year period during the entire ten years. As the Panel noted in its April 2003 report, it has been very difficult for the states and EPA to collect accurate or complete information on the universe of facilities covered by NSR, their compliance, and their past emission levels (Panel report, pp. 120-121, Finding 13). Due to this lack of data, states may have a difficult burden to rebut facilities' baseline calculations for the 10-year lookback unless emissions have previously been reported to the states over the last ten years.

EIP and CSG/ERC next looked at the Title V operating permits for six individual major facilities to determine whether their permit limits or other federal air programs would serve as a "backstop" and thus limit any potential increases that would otherwise be allowed by the 10-year lookback, but not by the 2-year lookback. This analysis is admittedly difficult and complicated because hypothetical situations are being applied to real facilities, and it is unclear how some of the other air rules might be interpreted and implemented by states or facilities. Moreover, EIP-CSG/ERC's analysis had to be limited to only six facilities due to resource constraints, so the results cannot be extrapolated to all other major sources.

Despite these limitations, however, the Panel believes that these six facilities are appropriate proxies for the major facilities and industry sectors affected by NSR. Thus, EIP-CSG/ERC's review of these actual permits provides a reasonable, representative, and generally thorough demonstration of whether other air programs might limit emission increases even if NSR is not triggered because of the 10-year lookback. The Panel notes that the EIP and CSG/ERC identified a broad range of current air standards and restrictions that might apply to each of the six facilities. In some cases, EIP and CSG/ERC found there would be no other air programs that would prevent emission increases and, in others, there would be only a partial reduction of emissions or it was not clear whether a facility would be subject to any limits. The Panel believes these six examples demonstrate that there is no easy way for current air programs to prevent emission increases and replace the limits required by the current NSR program, especially if those requirements are properly enforced by the state air agencies and EPA.

The Panel notes, however, that EIP-CSG/ERC's analysis did not take into account two other authorities that states could potentially use to limit future emissions if, or when, the 10-year lookback produces significant emission increases. First, states could revise emission levels in their State Implementation Plans (SIPs) and ratchet down allowable emissions from mobile

sources, area sources, or smaller stationary sources. Second, states could petition EPA under section 126 to reduce interstate air pollution transported from other states.

However, the Panel is doubtful that these authorities are realistic ways for states to curb emission increases because they are not designed to protect against backsliding. Indeed, any potential emission reductions using these options would be speculative, often politically unpalatable, and time-consuming. These two options would also require investing significant state resources, and will only take effect long after significant delays. Meanwhile, any excess pollution will already have been emitted. Additionally, the Panel notes that current Clear Skies bills (H.R. 999 and S. 485) propose significant revisions to the petition process of section 126, providing that, if any petitions are granted by EPA, the timeframe for compliance and implementation could not begin until 2012.

In its April 2003 report, the Panel noted that extending the time period for determining emission baselines would enable existing major facilities to continue avoiding NSR and would aggravate the problems identified by the Panel that have enabled many older, more polluting facilities to avoid reducing their emissions or installing modern technologies (Panel report, p. 118, Finding 11). EIP-CSG/ERC's study builds on the Panel's findings and further shows that the 10-year lookback will rarely, if ever, subject more sources to NSR's requirements, as compared to the 2-year lookback. Instead, it will allow more major sources to escape NSR and to continue releasing excess emissions for the indefinite future.

EPA justifies the 10-year lookback by saying it will allow facilities more flexibility in their operations. However, under the prior NSR rule, a facility could use a two-year period other than the most recent one if it could demonstrate to its permitting agency that this earlier period was more representative of normal operations. While EIP-CSG/ERC's survey of the states indicates that this alternative lookback period has been rarely used, the Panel believes that this provision still would provide the needed flexibility for industry without granting a 10-year lookback to all major facilities.

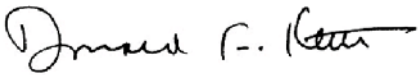
In August 2003, the General Accounting Office (GAO) found that EPA lacked reliable data for the NSR program, thus creating uncertainty about the impacts of EPA's rule changes on December 31, 2002. GAO then recommended that EPA determine what data could be used to monitor and measure the effects of the revised NSR rules and use those data to calculate whether the rules would create adverse environmental impacts. Clean Air Act: EPA Should Use Available Data to Monitor the Effects of Its Revisions to the New Source Review Program (GAO-03-947). EPA's reopening and reconsideration of the revised NSR rules has now offered an opportunity for the agency to evaluate the environmental effects of the rules before any adverse impacts will occur. Given the potential risks to public health that could result from increased air pollution under the 10-year lookback, the Panel agrees with the EIP-CSG/ERC and GAO recommendations that EPA should prepare a thorough analysis of the potential environmental impacts from the revised rules.

Indeed, EIP-CSG/ERC's study shows that a careful quantitative analysis can be done. Using the six permits as a sample, the EIP and CSG/ERC have demonstrated how EPA could analyze the impacts of the revised rules. It has also revealed that, if EPA finally adopts the 10-

year lookback, existing facilities will very likely be able to extend the lives of their old equipment and avoid upgrading with new technologies that will reduce emissions.

In conclusion, the Panel's review of EIP-CSG/ERC's study shows that the methodology and conclusions are a reasonable and fair assessment of the environmental impacts of the 10-year lookback provision of EPA's revised NSR rules. As in its April report (Panel Report, pp. 133-137), the Panel strongly recommends that, rather than broadening NSR's loopholes, EPA should reduce the inequities in the current NSR program and promote installation of modern, cleaner technologies that will reduce air pollution and protect public health.

Sincerely yours,



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Assessment of the Report
"Reform or Rollback? How EPA's Changes to New Source Review Affect Air Pollution in 12 States"
The Environmental Integrity Project and the Council of State Governments/Eastern Regional Conference

Assessment prepared by
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The Report, "*Reform or Rollback? How EPA's Changes to New Source Review Affects Air Pollution in 12 States,"* calculates the potential changes in air emissions from all regulated industrial sources in 12 states that might result from the proposed modification of the New Source Review rules. The Environmental Integrity Project and the Council of State Governments/Eastern Regional Conference prepared the Report. This assessment is an independent evaluation of the methodology, analysis and findings of that Report.

Ever since New Source Review (NSR) was incorporated into the Clean Air Act, there has been disagreement as to what actions should trigger requirements to upgrade pollution control equipment at industrial facilities and electric power generation plants. On December 31, 2002 the U.S. Environmental Protection Agency finalized a rule change for determining the baseline to be used by industrial facilities. Instead of requiring that firms use the two-year period immediately preceding a facility modification to calculate baseline emissions, as stated in the previous rule, the new rule allows firms to choose any consecutive 24-month period within the 10 years preceding the modification. Firms are in fact free to choose a different 24-month period for each of the 5 criteria pollutants.

Critics of the change have argued that the new rule will permit substantially higher emission levels to the air for particulates (PM), sulfur dioxide (SO_2), nitrogen oxides (NO_x),

Volatile Organic Compounds (VOCs) and carbon monoxide (CO). Their argument is that autonomous efficiency gains and technological improvements are likely to lower emissions over time, so that using the two most recent years might be expected to provide a stronger forcing function to tighten emission standards than does choosing a higher emission value from earlier in the previous decade. Since the Clean Air Act sets limits on the increases allowed for each pollutant before NSR is required, the choice of the baseline potentially could raise the level of permissible emissions.

A spokesman for the Administration has argued that there will in fact be little net change in emissions because other provisions of law will limit emissions increases. The arguments of both opponents and proponents of the NSR rule change can be tested by examining emission levels for a number of industrial sources under each set of rules. The effect of other regulations can then be estimated by examining subsets of different industries to see whether other regulations would place a significant constraint on increased emissions under the revised NSR rule. This Report is among a small group of studies that attempts to estimate *quantitatively* the effect of rule changes on emissions.[1]

INVENTORY ANALYSIS

The Report examined data from over 1200 facilities in 12 states during the past 6 to 10 years. The states chosen represent a range of highly and moderately industrialized regions and a full range of industrial facilities. The states that were selected had complete data on emissions for all criteria pollutants emitted by all industrial facilities for at least six years. These criteria provide an adequate data set for testing two different baselines.

> After selecting the states, the researchers then calculated for each facility how much their emissions could potentially change if the highest 24-month baseline were chosen instead of using the most recent two-year period available. They also did a detailed assessment of six specific facilities to determine whether additional federal laws other than NSR might prevent the release of additional pollutants in significant amounts under the rule change.

[1] Abt Associates Inc., Analysis of the Effect of Alternate Baselines for Clean Air Act New Source Review: Nucor Steel-Crawfordsville, Indiana, and Analysis of the Effect of Alternate Baselines for CAA Prevention of Significant Deterioration New Source Review: Mobil-Joliet, Illinois, published in Environmental Integrity Project, *Turning the Clock Back on the Clean Air Act* (Oct. 2002); Abt Associates Inc., Potential to Increase Above Current Emissions Without Triggering New Source Review: (Colorado, Florida, Louisiana, and Virginia) Before and After EPA's Final Rule Published 12/31/02 (Jan. 2003).

Under the new NSR rule, 1271 industrial facilities showed a potential allowable increase in at least one of the five criteria pollutants. Many facilities under the new rule would potentially allow more than one pollutant to increase, and for several facilities, all five criteria pollutants could potentially increase without triggering NSR. Increases of individual facilities ranged from as little as one ton per year to as much as 114,000 tons/yr for SO_2, 110,000 tons/yr for CO, 14,000 tons/yr for VOCs, 13,000 tons/yr for NO_x and 2800 tons/yr for particulates. At some facilities, some pollutants did not increase under the new baseline because there were no years in the previous decade that were sufficiently higher than the most recent two years reported. In no case were there decreases in potential emitted pollutants for any firm under the revised guideline. The data for each pollutant at each named facility are summarized in more than 60 pages of extensive tables.

EMISSIONS INVENTORY METHODOLOGY

The purpose of this assessment is to determine the robustness of these findings. Hence we will begin by examining the methodology that is used in coming to these conclusions.[2]

As indicated above, the selection process includes a sufficiently representative group of states with a full range of industrial facilities to constitute a valid sample. In a study of this type it is preferable to utilize the primary data source from the states (as is done here) rather than to rely on secondary compilations. Sample size was limited to twelve states because many states were unable to provide data in an appropriate format or over a sufficient timeframe. There does not appear to be any aspect of the selection process that would bias the outcome of the analysis, and where ambiguities arise, conservative assumptions were made (see below).

The calculation compares allowed increases under NSR from the most recent two-year emissions data for each of five pollutants with what would be allowed if the highest two-year emissions in the previous decade had been chosen. In each case, the same allowable increment for each pollutant is assumed.

[2] See 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). References to NSR refer to both nonattainment NSR and attainment PSD programs.

There are two aspects of this calculation that may cause slight differences from actual cases. First, not all of the twelve states have data from the past ten years, so that in some cases, calculations had to be based upon as few as six years. This most likely leads to an underestimation of the increases under an alternative baseline for the states with the shorter time periods since generally facility emissions have decreased over time. Second, the data are not always available for "the most recent two year period," and the period varies by a year or two among the states. While this leads to minor inconsistencies among the states, this factor also is most likely to lead to an underestimation of the increases in emissions from using the "new rule" baseline since in most cases, more current emissions could be even lower. These two factors then generally underestimate the emissions increase when using the new rule for selecting the baseline years. This minor data problem is not one of methodology so much as it is a problem of record keeping by the states.

It was necessary to identify only emitters that met the definition as a "major" source." Since state data are sometimes unclear on this matter, the researchers chose assumptions that could never identify a facility as a major emitter if it was not one. Hence the state totals for potential increases under the new rules understate their true potential by an unknown amount.

PERMIT ANALYSIS

In addition to calculating the difference in emissions allowed without triggering NSR, it is possible that other federal and state air quality provisions could block the potential increases. To determine the extent that this might occur, six facility case studies were selected and their permits were analyzed in detail, and potential emissions increases under the new baseline rule were estimated for each of the five pollutants. Then alternative air quality regulations were examined to determine the extent that they might prevent or reduce the increases under the new NSR rule. Fourteen pollutant emissions were identified among the six case studies. Under the new NSR rule, six emissions were unaffected by other regulatory provisions and potential emissions increases were reduced by other regulations in seven cases. In only one case, no emissions increase could occur *if* NSPS requirements applied. If NSPS provisions were applicable in two cases where increases occur, potential emissions increases would be lower in these two cases as well.

It is interesting to note that potential emissions increases can occur in all but one possible (and unlikely) case under the new rule regardless of which additional regulations are invoked. It is clear that even with inevitable assumptions that must be made that the analysis in this Report demonstrates that there are numerous examples where significant increased releases of criteria pollutants could potentially arise from major emitters if the new rule for baseline calculation were implemented. The value of this type of quantitative analysis is clear in testing competing assertions concerning the potential changes in emissions under differing baselines and additional regulation.

PERMIT ANALYSIS METHODOLOGY

The choice of the cases was not random, but appears to have been made to illustrate alternative outcomes in several important industrial categories of major emitters: paper, manufacturing, chemicals and refineries. The finding that in some cases emissions could potentially increase to the full extent that was estimated under the new NSR rule while in other cases the increases were smaller because of other laws suggests that the selection of examples is reasonably representative. Because of the small sample size, this analysis should be seen as illustrative demonstrations of potential outcomes.

When it is necessary to determine implications for a particular industrial unit at a facility, the researchers are faced with a problem since reported emissions are provided for the entire facility. In one case, they were able to obtain unit emissions for one year, and used that to apportion emissions under alternative baseline assumptions. In other cases, it was necessary to apportion emissions according to the relative energy use by the unit. A caveat for this procedure is noted in the Report. While these methods of allocating emissions can be criticized, they are unlikely to change the outcome as it is as likely that the emissions are over estimated as that they are underestimated in any given year. Also, if there is an error, it is likely to be comparable in different years so that errors in the differences calculated between different baselines are likely to be small. Again, this is more of a problem of requirements for record keeping than a problem with the methodology.

CONCLUSIONS

The inventory analysis demonstrates convincingly the potential emission increases that would be allowable under the proposed new rule for calculating baselines under New Source Review. These potential emission increases can be quite substantial for almost every type of industry. The evidence from the permit analyses demonstrates that there are multiple circumstances under which other regulations would still allow significant potential increases in emissions under the new NSR rule.

The methodology employed appears sound, and where estimates had to be made because of incomplete or inadequate data, the researchers have chosen to use values that either underestimated the potential for increases under the new rule, or at worst were as likely to lead to a lower as to a higher increase.

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. Transparent assessment of potential regulatory outcomes serves the interests of the public, the regulated industries the economy and the policy process.

A FINAL OBSERVATION AND COMMENT

Let me conclude with an additional observation that I was not called upon to make. While conducting this assessment, I was struck by how far away the current regulatory system has moved from its intended purpose of protecting public health and the environment by assuring adequate air quality. The ambiguities as to when NSR and NSPS rules are triggered make the current system more of a legal board game than an effective protector of the public interest. The structure of these laws also tends to discourage innovation by American industries and creates regulatory lock-in to inefficient, outdated and uncompetitive technology. It is my opinion that both the public and the regulated companies would be better served by clear rules about allowable emissions that assure a safe level of air quality, with dates certain as to when those levels will be achieved. It might even be appropriate to allow *short-term* continuations or even increases in emissions in exchange for major reductions by guaranteed installation of cleaner, new equipment within a specified, enforceable time frame. But then my opinion on this aspect of the environmental legal system was not asked for.

Endnotes

[i] 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.

[ii] 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.

[iii] *See* 40 C.F.R. § 51.165(a)(1)(xii)(B) (as codified prior to Dec. 31, 2002).

[iv] *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).

[v] 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.

[vi] *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.

[vii] 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.

[viii] The major source thresholds also vary depending on the attainment status of an area. However, for the purposes of this analysis, we rely on the thresholds specified in Table 2.3, which are the thresholds for attainment areas and for areas classified as moderate or marginal nonattainment. This reduces the likelihood that we would mischaracterize a minor facility as a major.

[ix] In performing this analysis we found that the list of 28 source categories did not correspond well with listings by SIC code. For example, the list of 28 sources includes "fossil fuel boilers totaling more than 250 million Btu/hr heat input." Any number of industry sectors utilize fossil fuel boilers. In this case, an SIC code is not helpful in identifying the sources of interest. In general, we erred on the conservative side by applying a 250-ton threshold when the source classification was in doubt.

[x] Staying Healthy: Health Issues Surrounding Proposed Changes in Clean Air Standards. Hearing Before the Senate Committee on Health, Education, Labor and Pensions (Sept. 3, 2002) (statement of Jeffrey Holmstead, Assistant Administrator, Office of Air and Radiation, U.S. Environmental Protection Agency).

[xi] As we noted in the emissions inventory analysis, the NSR rule contains pollutant-specific significance level cut-offs, which in general are 25 tons for particulate matter (PM), 40 tons for NOx, SO_2 and VOCs, and 100 tons for CO. In some cases the significance thresholds can be more stringent than the values listed above (depending on the severity of the area's nonattainment). However, for the purposes of this analysis we always assume the thresholds listed. (Throughout this analysis we refer to a 25-ton significance level for PM. In some cases this is a conservative assumption because certain of the state databases report PM10 emissions, a subcategory of PM emissions. The significance threshold for PM10 is only 15 tons.)

[xii] The wood chip burner is a reasonable surrogate for the facility as a whole because the other units are used only in a back-up capacity because of a state permit restriction, imposed pursuant to an administrative order, allowing for their operation only five percent of the time.

[xiii] Note that the limits that appear in the table would keep the facility from triggering NSR on account of a modification. The facility is currently subject to much less stringent limitations, resulting only from state-imposed programs, reflected in its Title V Operating Permit, dated December 1, 2000.

[xiv] Because the source is not a Kraft pulp mill, the NSPS at 40 CFR 60 Subpart BB are not applicable.

[xv] The Illinois emissions inventory and the BP Amoco Chemical permit use the term "volatile organic material" or "VOM" instead of "VOCs." The two categories are similar, and we treat them for our purposes as identical. Also, although BP Amoco Chemical is a major source for pollutants other than VOCs, we restrict our inquiry to VOCs because that is the only pollutant that the maleic anhydride unit emits in "major" quantities.

[xvi] In a preconstruction permit issued in 1998, BP Amoco Chemical took the following limits on its potential to emit VOCs, in order to stay below the Prevention of Significant Deterioration/NSR applicability threshold:

Maleic anhydride unit	180 tpy
Isophthalic unit	128 tpy
Purified isophthalic acid unit	36 tpy
Trimellitic anhydride unit	40 tpy
Boilers, cooling towers and decanter	30 tpy
Miscellaneous other	51 tpy
Total	**465 tpy**

[xvii] As noted in the previous endnote, the unit took the existing permit limits in order to avoid triggering NSR/PSD. However, although it was able to avoid NSR/PSD in part by virtue of a "netting" exercise, it did become subject to the applicable NSPS.

[xviii] A modification only triggers the NSPS if it increases the facility's hourly emission rate of the pollutants in questions, or is a "reconstruction," defined as the replacement of components costing more than 50 percent of the fixed capital cost that would be required to construct a comparable new facility. See the Explanation of Methodology.

[xix] We exclude CO from our analysis for the reason discussed below, and exclude VOCs because they are not emitted by boiler #7.

[xx] Note that in the American Paper Mills example this same section of the NSPS only imposes limits on PM emissions, because that facility burns wood.

[xxi] The Wisconsin emissions inventory and the Goldschmidt permit use the term "reactive organic gases" instead of "VOCs." The two categories are similar, and we treat them for these purposes as identical.

[xxii] In previous construction permits, Goldschmidt took the following limits, in order to stay below the Prevention of Significant Deterioration applicability threshold:

Batch chemical reactors	872 tpy
WW air stripper	39 tpy
Centrifuges	39 tpy
Flaker	39 tpy
Total	**989 tpy**

As indicated in the Explanation of Methodology, we have made the assumption that these limits will remain in place. However, note that these limits would not prevent or constrain Goldschmidt's emissions increases under the new rule.

[xxiii] A modification only triggers the NSPS if it increases the facility's hourly emission rate of the pollutants in question, or is a "reconstruction," defined as the replacement of components costing more than 50 percent of the fixed capital cost that would be required to construct a comparable new facility. See the Explanation of Methodology.

[xxiv] We exclude SO_2 from our analysis for the reason discussed below, and exclude VOCs because they are not emitted in significant quantities by boiler 15-BH-6.

[xxv] Note that in the American Paper Mills example this same section of the NSPS only imposes limits on PM emissions, because that facility burns wood.