

**Responses to Significant Comments on the
Proposed Findings of Significant Contribution and Rulemaking on
Section 126 Petitions for Purposes of Reducing
Interstate Ozone Transport
(63 FR 24058, April 30, 1998; 63 FR 52213, September 30, 1998;
63 FR 56292, October 21, 1998; 64 FR 2416, January 13, 1999;
64 FR 10118, March 2, 1999; and 64 FR 10342, March 3, 1999)**

Docket Number A-97-43, VI-C-01

U.S. Environmental Protection Agency
April 1999

pool also provides further allowances in the trading market for the first two years of the program (see compliance supplement pool discussion in Section IV of final rule preamble). In addition, many States are in the process of developing a trading program under the NO_x SIP call. Since, a trading program will be promulgated by EPA for this section 126 rulemaking all sources subject to any final section 126 remedy will be subject to the trading program.

SUMMARY: Commenter objects to EPA's denial of commenter's petition with respect to large process heaters. Commenter points that implementation of a regional NO_x budget program adopted by the OTC indicates that a trading program is available for these sources within the OTC. Commenter questions why such a similar program is not being imposed by EPA on large process heaters.

LETTERS: Connecticut Dept. of Environmental Protection (IV-D-19), Midwest Ozone Group (V-H-58), Pennsylvania Power & Light, Inc. (V-H-119)

RESPONSE: Table 7-10 of the Regulatory Impacts Analysis (RIA) for the NO_x SIP call (Volume 1, September 1998) shows the annual costs and resulting average cost-effectiveness for each regulatory alternative for process heaters. Annual monitoring and administrative costs are not estimated for this category of sources because it is evident from Table 7-10 that even without these additional costs there is no regulatory alternative that meets EPA's criteria for highly cost-effective ozone season NO_x emissions reductions. That is, when emissions decreases are considered at all large process heating sources (i.e., regulatory alternatives applying greater than \$4,000/ton of control), the resulting average cost-effectiveness clearly exceeds EPA's cost-effectiveness criteria of less than \$2,000 per ton of NO_x reduction.

Although a trading program is available for process heaters under the OTC, EPA has determined that controlling process heaters across the entire region potentially covered by section 126 is not highly cost effective. If EPA were to include monitoring costs in its cost-effectiveness number and assume that a trading program would achieve a 30 percent reduction in the cost-effectiveness number, controlling process heaters would still cost more than \$2,000 per ton of NO_x removed. Thus, for the final rule, EPA concludes that process heaters do not emit in amounts that significantly contribute to petitioning States' nonattainment or maintenance problems.

SUMMARY: Commenters object to EPA's denial of commenter's petition with respect to EGUs between 15 and 25 MW. Commenters advocates capping such sources at 1990 levels consistent with the OTC NO_x MOU. The commenters argued that this action would be highly cost-effective since it would not require additional controls in a market driven NO_x control program. One commenter argued that inclusion of these sources will control the shifting of power production to smaller sources. One of the commenters stated that control

of 15-25 MWe boilers is highly cost effective because they believe that the petitions clearly demonstrate these sources do have a significant impact.

LETTERS: Connecticut Dept. of Environmental Protection (IV-D-19), New York Dept. of Environmental Conservation (II-D-5), Pennsylvania Dept. of Environmental Protection (II-D-26), Midwest Ozone Group (V-H-58), Pennsylvania Power & Light, Inc. (V-H-119), (Maine, IV-D-75)

RESPONSE: In the NO_x SIP call (see 63 FR at 57402), EPA found that the collective emissions from small sources were relatively small (in the context of that rulemaking) and the administrative burden, to the permitting authority and to regulated entities, of controlling such sources was likely to be considerable. Even if EPA were not to apply additional controls beyond capping small sources at 1990 levels, there would be administrative costs that would be considerable in comparison to the emissions reductions gained. Thus, controlling small sources (less than 25 MWe) is not appropriate for EPA to mandate.

Data is often lacking for the smaller size sources. This level allows the rulemaking to focus on the group of emission sources that contribute the vast majority of emissions, while at the same time avoids assuming emissions reductions from a very large number of smaller sources. This approach provides more certainty and fewer administrative obstacles while still achieving the desired environmental results.

Assuming controls on the smaller EGUs would also be inconsistent with the approach EPA proposed and is taking for non-EGUs. That is, the 250 mmBtu non-EGU cutoff is approximately equivalent to the 25 MWe cutoff level for EGUs. EPA is generally treating the non-EGU boilers/turbines in the same manner as the EGUs to develop a simple and effective trading program. Consistency with the EGU approach is also important because it provides equity, especially among the smaller boilers and turbines.

Finally, EPA maintains that the potential for shifting power production to smaller unaffected sources is minimized because such a large portion of electric generating units are subject to the NO_x trading program. In the final action, EPA concludes that small sources do not emit in amounts that significantly contribute to petitioning States' nonattainment or maintenance problems.

SECTION IV.D. Compliance Supplement Pool

SUMMARY: Most commenters expressed support for a compliance supplement pool as part of the trading program. However, others noted that the compliance supplement pool may not be appropriate and/or legal as part of a section 126 remedy because it could result in an extended compliance period beyond the 3-year requirement provided for under section 126. Another commenter stated specifically that the compliance supplement pool should not be included along with the FIP. Other commenters noted that requiring the use of compliance supplement pool credits by 2004 provided no environmental benefit. Finally, two

EPA has taken a fuel neutral approach in establishing 0.15 lb/mmBtu limit which does not favor one fuel type over another. A 0.05 lb/mmBtu control level for gas and oil-fired units selected would effect the cost-effectiveness (possibly increasing costs) because it would limit the number of allowances available for trading. EPA believes that 0.15 lb/mmBtu limit can easily be achieved by gas and oil-fired boilers, of which over half already operate at NO_x levels below a 0.15 lb/MMBtu emission limit and should therefore easily be able to generate emission credits if trading is allowed. The EPA recognizes that for coal-fired boilers to operate at or below this limit, Selective Catalytic Reduction (SCR) will generally be necessary. However, under a trading scenario, if one coal-fired boiler is able to emit below this level by installing SCR, it can provide emission credits to another boiler, thus obviating the need for that boiler to install SCR. The EPA believes that ample allowances would exist to sustain a market under the NO_x Budget Trading Program. Results of an analysis of this issue can be found in the RIA.

Therefore, EPA believes that the 0.15 lb/MMBtu standard is reasonable and appropriate.

SUMMARY: Commenter supports considering the average cost of control and not differentiating between large and small sources within the affected category because with the anticipated trading program, units with high costs of control will be able to trade with those having lower control costs to minimize the overall cost of control.

LETTERS: NY DEC (II-D5)

RESPONSE: EPA believes that trading for large combustion sources under a budget that is developed based on this limit is a feasible, cost-effective means of meeting the budget. The EPA performed an analysis to determine the cost effectiveness of NO_x controls applied to large utility boilers and how it compared to other section NO_x controls. The results indicate that controlling emissions to an average level of 0.15 lb/MMBtu was highly cost effective. EPA found that the collective emissions from small sources were relatively small and the administrative burden, to the permitting authority and to regulated entities, of controlling such sources was likely to be considerable in comparison to the emissions reductions gained. Thus, controlling small sources (less than 25 MWe) is not appropriate for EPA to mandate.

SUMMARY: A number of commenters supported a phased-in approach. These alternatives included the phase-in proposals submitted by ACAP and the Midwest/Southeast Governors Ozone Coalition, as well as other various proposals. Other commenters, however, opposed any phase-in approach because delaying or phasing in the NO_x reductions will negatively impact the environment.

LETTERS: Allegheny Power (V-H-140), Indiana Department of Environmental Management (V-H-116), New Hampshire Department of Environmental Services (V-I-39), West Virginia Chamber of Commerce (V-H-173), Cinergy (II-D-23)

times for completing SCR installation and found that power did move between regions in the event of longer outage times.

- **UARG maintains that scheduling outages may be a problem given the advent of competition.** According to UARG, utilities may be unwilling to coordinate their outage schedules in light of increased competition in the electric power industry. EPA maintains that it is reasonable to assume that utilities will continue to cooperate and coordinate their outage schedules as they currently do. Even with increased competition, utilities and independent power producers will likely be concerned about reliability and the need for coordination, particularly since customers will have an increased ability to change electric suppliers.
- **UARG states that there may not be enough catalyst for the amount of SCR installation that they believe will occur.** UARG did not provide any support for the assumption that the supply of catalyst will be insufficient. EPA's *Feasibility of Installing _{NOx} Control Technologies by May 2003* demonstrates that it would not be a problem to provide the amount of catalyst that UARG maintains is needed.

EPA also notes that the ECAR letter to Carol Browner points out reliability concerns raised in the ten-year assessment of ECAR-wide capacity margins that it appears could be exacerbated by the _{NOx} SIP Call. However, the ECAR ten-year assessment actually raised concerns for reliability during the summer peak period, whereas the installation of SCR technology will occur during off-peak periods. (See Memo from ICF Kaiser to EPA dated September 15, 1998.)

UARG suggested that NESCAUM agrees with UARG's position on reliability. However, NESCAUM has responded that it does not agree with UARG's position. (See September 1998 NESCAUM letter to EPA.)

SECTION VI. D: Impact on Small Entities

SUMMARY: Commenter supports the position to exclude boilers with generators of 25 MW or smaller in size because it is not cost-effective. A study conducted by SFT, Inc. estimated the cost to comply with a 0.15 lb/mmBtu limit for the commenter's generating units. This study calculated the annual cost to install and operate SCR for boiler #8. Based on a debt service rate of 4.5 percent and an installation date of 2002, the annual cost for this technology is \$0.95 million dollars or 2.1 percent of the commenter's projected 1998 revenues. The cost per ton removed is \$4,107 which is much greater than the projected cost effectiveness of \$1,468/ton for large EGUs and \$1,477 for large non-EGUs.

LETTERS: City of Hamilton Ohio (IV-D-74, III-D-65)

RESPONSE: EPA agrees that the cost-effectiveness of controls for small units is less and that the administrative costs for small units without monitors is greater. In the final action,

EPA concludes that small sources do not emit in amounts that significantly contribute to petitioning State's nonattainment or maintenance problems.

SUMMARY: Commenters argued that cost-effectiveness analysis inappropriately relies on region-wide, source category-wide estimates and fails to consider the relative economies or diseconomies inherent in controlling individual EGUs. One commenter maintained the compliance cost impact small facilities inordinately because of lesser economies of scale in relation to large competitors and because many have not yet had to invest in Title IV controls. In addition, the commenter argued that the investment in Title IV controls are worthless because the rule virtually requires the installation of post-emission control technology.

LETTERS: City Utilities of Springfield (MO) (IV-D-93, III-D-20), City of Orville Ohio (IV-D-85)

RESPONSE: EPA recognizes that there can be differences in the cost of implementing controls on various fossil fuel-fired EGUs. The potential cost impacts of differences in boiler characteristics and applicable control technologies have been accounted for in the IPM analysis used by EPA in estimating cost impact of the rule on EGUs. The Agency's small entity screening analysis documents that the rule will not impose a significant impact on most small entities.

EPA disagrees that the rule virtually requires the installation of post-emission control technology. EPA is not imposing specific controls on sources and is in fact providing flexibility so that a source may choose the most cost-effective option, including the addition of control technologies or the purchase of NO_x allowances. Title IV controls (such as combustion controls) are not worthless because they can be used in conjunction with post-emission control technology and lead to a reduction in the amount of post combustion control needed (e.g., less SCR catalyst is needed). They also can be used to reduce the amount of NO_x allowances that need to be purchased.

SUMMARY: Commenter maintains that EPA's estimate of EGUs cost to comply with the rule are substantially understated. The commenter estimates its own costs to comply will fall within the range of 4-8% of its electricity revenues. The commenter also maintained that it is infeasible to raise its rates to recapture these expenses because it has nearby competitors that will not incur these costs.

LETTERS: City Utilities of Springfield (MO) (IV-D-93, III-D-20)

RESPONSE: EPA agrees that the cost for the commenter to comply with the rule will fall between 4 and 8 percent of annual revenues. EPA estimates that the commenter's most cost efficient response to the section 126 rule would be to implement a mix of technologies and management strategies, including SCR technology. EPA estimates that the commenter's cost is likely to be approximately 5 percent of annual electricity generation revenue. This impact

Federal Register

Monday
May 11, 1998

Part II

**Environmental
Protection Agency**

40 CFR Parts 51, 76, and 96

Supplemental Notice for the Finding of
Significant Contribution and Rulemaking
for Certain States in the Ozone Transport
Assessment Group Region for Purposes
of Reducing Regional Transport of
Ozone; Proposed Rule

equal to or greater than their actual emissions for that quarter.

In terms of NO_x emitters, the RECLAIM program generally requires stationary sources that emit ten or more tons of NO_x annually or which burn any solid fuels to use CEMS to quantify their emissions. Smaller sources have additional monitoring options. Sources that emit four or more tons of NO_x and less than ten tons may use default emission rates. They must demonstrate that these rates are appropriate by monitoring process variables, performing periodic emissions testing, and conducting periodic tune-ups of equipment. The smallest sources in the RECLAIM program (those with annual emissions of less than four tons) may choose to use default emission rates that require less extensive testing and demonstration than those available to the larger sources.

The program's annual report for 1996 concluded that RECLAIM was continuing to meet its emissions reduction goals; an active trading market had developed; and the compliance rate, once it is finalized for the 1996 compliance year, will be in the 85 to 90 percent range.

C. NO_x Budget Trading Program

1. General Provisions

Today's proposed NO_x Budget Trading Rule will be incorporated into the 40 CFR as a new part 96. The subparts of 40 CFR part 96 are described below. The provisions of 40 CFR part 96 will become effective and apply to sources only if a State incorporates 40 CFR part 96 by reference into the State's regulation or adopts regulations that are in accordance with 40 CFR part 96.

a. Purpose. Subpart A of today's proposed NO_x Budget Trading Rule includes Sections describing: To whom the NO_x trading program would apply; the standard requirements for participants in the program (permitting, NO_x allowances, monitoring, excess emissions, and liability provisions); exemptions for retired units from the program requirements; definitions, measurements, and abbreviations; and computation of deadlines stated within the proposal.

b. Definitions, Measurements, Abbreviations, and Acronyms.

Many of the definitions, measurements, abbreviations, and acronyms are the same as those used in 40 CFR part 72 of the Acid Rain Program regulations, in order to maintain consistency among programs. However, additional terms specific to the NO_x Budget Trading Program, such as control period (the period beginning

May 1 of each year and ending on September 30 of the same year), NO_x Budget unit (a unit subject to the emissions limitation under the NO_x Budget Trading Program), and several others are added. Key definitions are discussed in relevant Sections below describing the rule.

c. Applicability. The EPA proposes that the NO_x Budget Trading Rule be applicable to a core group of sources that includes all fossil fuel-fired, stationary boilers, combustion turbines, and combined cycle systems (i.e., "units") that serve an electrical generator of capacity greater than 25 MWe and to any fossil fuel-fired, stationary boilers, combustion turbines, and combined cycle systems not serving a generator that have a heat input capacity greater than 250 mmBtu/hr. A unit is considered fossil fuel-fired if fossil fuels account for more than 50 percent of the unit's heat input on an annual basis. These sources represent about 80 percent of the point source portion of the 2007 NO_x baseline emissions inventory and about 65 percent of the point source portion of the 2007 NO_x budget in the proposed ozone transport rulemaking. Additionally, these sources represent about 90 percent of the emissions reductions required in the proposed ozone transport rulemaking.

The EPA proposes the above core group of sources based on their significant contribution of NO_x emissions, range of cost-effective emissions reduction options, ability to monitor emissions, and ability to identify responsible parties. The following discussion examines the monitoring and responsible party criteria for the NO_x Budget Trading Program's applicability. Additional options for the trading program's applicability are also presented for consideration. The EPA solicits comment on the appropriateness of including all categories described above in the core group of sources, whether the size cut-offs should be higher or lower for these source categories, and the appropriateness of including other source categories in the core group.

i. Monitoring. In general, sources that participate in a cap-and-trade program must have the ability to accurately and consistently account for their emissions. Accuracy is an important design parameter because it ensures that emissions for all sources covered by the trading program are within the cap. In addition, because each NO_x allowance will have economic value, it is important to ensure that emissions (and thus allowances used) are accurately quantified. Consistency is an important

feature because it ensures that accuracy is maintained from source to source and year to year. It also ensures that the sources in the trading program are treated equitably. Finally, consistency facilitates administration of the program for both the regulated community and State and Federal agencies.

When considering what source types to include in the proposed trading program (e.g., large boilers, process sources, mobile sources, area sources), EPA determined that the core sources were capable of accurate and consistent monitoring as outlined below.

- **Large Electric Utility Units:** For several years, units serving electricity generators greater than 25 MWe (with some exemptions for cogeneration and nonutility electricity generating units) have been complying with the title IV monitoring provisions. The EPA proposes to include these sources in the NO_x Budget Trading Program.

- **Other Large Electricity Generating Units:** Additionally, with deregulation of electric utilities, it is not clear how ownership of the electricity generating facilities will evolve. Therefore, EPA proposes to include all large electricity generating sources, regardless of ownership, in the trading program. As there is no relevant physical or technological difference between utilities and other power generators, the same monitoring provisions and the size cut-off of greater than 25 MWe are applicable to all units which serve generators.

- **Other Large Steam Producing Units:** There is also no fundamental physical or technological difference between a boiler, combustion turbine, or combined cycle system that produces steam for eventual production of electricity or for other industrial applications. Thus, EPA believes that the same monitoring provisions can be applied to a boiler, combustion turbine, or combined cycle system used for industrial steam.¹³

- ii. **Responsible Party.** Another critical element of a trading program is to be able to identify a responsible party for each regulated source. The responsible party for a source covered by the trading program would be required to demonstrate compliance with the provisions of the NO_x Budget Trading Program. In general, the large sources included in the proposed trading program have readily identifiable owners and operators that would serve as the responsible party.

¹³ Further, assuming a generator efficiency of approximately 1/3, the 25 MWe cutoff being used for electrical power producers is roughly equal to a 250 mmBtu/hr cutoff for steam producing boilers, combustion turbines, and combined cycle systems.

Commander, no person or vessel may enter or remain in the regulated area.

Regulatory Evaluation

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866 and does not require an assessment of potential costs and benefits under section 6(a)(3) of that order. It has been exempted from review by the Office of Management and Budget under that order. It is not significant under the regulatory policies and procedures of the Department of Transportation (DOT) (44 FR 11040; February 26, 1979). The Coast Guard expects the economic impact of this rule to be so minimal that a full Regulatory Evaluation under paragraph 10e of the regulatory policies and procedures of DOT is unnecessary. Since the regulations will only be in effect for one hour, the impacts on routine navigation are expected to be minimal.

Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601-612), the Coast Guard must consider whether this rule will have a significant economic impact on a substantial number of small entities. "Small entities" include independently owned and operated small businesses that are not dominant in their field and that otherwise qualify as "small business concerns" under section 3 of the Small Business Act (15 U.S.C. 632). Because it expects the impact of this rule to be minimal, the Coast Guard certifies under 5 U.S.C. 605(b) that this temporary final rule will not have a significant economic impact on a substantial number of small entities.

Collection of Information

These regulations contain no collection of information requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

Federalism

The Coast Guard has analyzed this rule under the principles and criteria contained in Executive Order 12612 and has determined that this rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Environment

The Coast Guard considered the environmental impact of this rule and concluded that, under figure 2-1, paragraph (34)(b) of COMDTINST M16475.1C, this rule is categorically excluded from further environmental documentation. Special local regulations issued in conjunction with a

regatta or marine parade are excluded under that authority.

List of Subjects in 33 CFR Part 100

Marine Safety, Navigation (water), Reporting and recordkeeping requirements, Waterways.

Temporary Regulations

In consideration of the foregoing, Part 100 of Title 33, Code of Federal Regulations is amended as follows:

PART 100—[AMENDED]

1. The authority citation for Part 100 continues to read as follows:

Authority: 33 U.S.C. 1233; 49 CFR 1.46 and 33 CFR 100.35.

2. A temporary section 100.35-T05-106 is added to read as follows:

§ 100.35-T05-106 Cape Fear River, Wilmington, North Carolina.

(a) Definitions:

(1) *Regulated Area*. The waters of the Cape Fear River from shoreline to shoreline, bounded on the north by a line drawn along latitude 34°14.4' North and bounded on the south by a line drawn along latitude 34°14.0' North. All coordinates reference Datum NAD 1983.

(2) *Coast Guard Patrol Commander*. The Coast Guard Patrol Commander is a commissioned, warrant, or petty officer of the Coast Guard who has been designated by the Commander, Coast Guard Group Fort Macon.

(b) Special Local Regulations:

(1) Except for persons or vessels authorized by the Coast Guard Patrol Commander, no person or vessel may enter or remain in the regulated area.

(2) The operator of any vessel in this area shall:

(i) Stop the vessel immediately when directed to do so by any official patrol, including any commissioned, warrant, or petty officer on board a vessel displaying a Coast Guard ensign.

(ii) Proceed as directed by any official patrol, including any commissioned, warrant, or petty officer on board a vessel displaying a Coast Guard ensign.

(c) *Effective Dates*. This temporary final rule is effective from 11:30 p.m. on December 31, 1998 to 12:30 a.m. on January 1, 1999.

Dated: December 8, 1998.

Roger T. Rufe, Jr.,

Vice Admiral, U.S. Coast Guard Commander, Fifth Coast Guard District.

[FR Doc. 98-34133 Filed 12-23-98; 8:45 am]

BILLING CODE 4910-15-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51 and 96

[FRL-6198-1]

Correction and Clarification to the Finding of Significant Contribution and Rulemaking for Purposes of Reducing Regional Transport of Ozone

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; correction and clarification.

SUMMARY: The EPA is correcting and clarifying certain aspects to the requirements for 22 States and the District of Columbia to submit State implementation plan (SIP) revisions to prohibit specified amounts of emissions of oxides of nitrogen (NO_x) (also referred to as the NO_x SIP call). Most importantly, EPA is reopening the period for emissions inventory revisions to 2007 baseline sub-inventory information used to establish each State's budget in the NO_x SIP Call to February 22, 1999. This includes source-specific emission inventory data and vehicle miles traveled (VMT) and nonroad mobile growth rates, VMT distribution by vehicle class, average speed by roadway type, inspection and maintenance program parameters, and other input parameters used in the calculation of highway vehicle emissions. The comment period for 2007 baseline sub-inventory revisions will be reopened for two related notices of proposed rulemaking concerning Clean Air Act section 126 petitions (the section 126 proposal) and Federal implementation plans for the NO_x SIP call (the FIP proposal) in a future action.

DATES: This rule is effective December 28, 1998.

ADDRESSES: Dockets containing information relating to this rulemaking (docket Nos. A-96-56, A-97-43, and A-98-12) are available for public inspection at the Air and Radiation Docket and Information Center (6102), U.S. Environmental Protection Agency, 401 M Street SW, room M-1500, Washington, DC 20460, telephone (202) 260-7548, between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays. A reasonable fee may be charged for copying. E-mail is A-AND-R-DOCKET-GROUP@EPA.GOV.

FOR FURTHER INFORMATION CONTACT: General questions concerning today's action should be addressed to Kimber S. Scavo, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, MD-15.

Research Triangle Park, NC 27711, telephone (919) 541-3354; e-mail: scavo.kimber@epa.gov. Specific questions on emissions inventory updates should be directed to Greg Stella, Office of Air Quality Planning and Standards, Emissions Monitoring and Analysis Division, MD-14, Research Triangle Park, NC 27711, telephone (919) 541-3649; e-mail: stella.greg@epa.gov.

SUPPLEMENTARY INFORMATION: By notice dated October 27, 1998, EPA published, "Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," 63 FR 57356, which may be referred to as the NO_x SIP call. By notice dated September 30, 1998, EPA proposed, "Findings of Significant Contribution and Rulemakings on Section 126 Petitions and Federal Implementation Plans for Purposes of Reducing Interstate Ozone Transport," 63 FR 52213. On October 21, 1998, EPA published longer, more detailed versions of these proposals entitled "Findings of Significant Contribution and Rulemaking on Section 126 Petitions for Purposes of Reducing Interstate Ozone Transport," 63 FR 56292, and "Federal Implementation Plans to Reduce the Regional Transport of Ozone," 63 FR 56394. The section 126 proposal and the FIP proposal are related to the final NO_x SIP call. The comment period for these two proposals closed on November 30, 1998.

Emission Inventory Revisions

The EPA has received numerous requests to allow more time to accept revisions to source-specific inventory data used to establish each State's base and budget in the NO_x SIP Call and to also allow revisions to VMT projections. The final SIP call, as described on page 57427, provided that the opportunity for source-specific inventory data revisions would be available for the first 60 days of the 12-month period between signature of the NO_x SIP call and the deadline for submission of the required SIP revisions (i.e., November 23, 1998). The Agency is aware of difficulties some States have had accessing the emission inventory data bases. Therefore, EPA, today, is reopening this time period to 60 days from the date of publication of this rule rather than signature of the NO_x SIP call and to accept revisions to VMT projections. However, the EPA strongly urges commenters to submit proposed changes to the inventories of EGU's greater than 25 MWe and non-EGU boilers and turbines greater than

250 mmBtu/hr within 30 days from the date of publication of this document, i.e., January 25, 1999. The EPA requests commenters submit comments on these sources first in order to facilitate incorporation of any necessary changes into the budgets for the section 126 final rulemaking which must be finalized by April 30, 1999 in accordance with the consent decree governing EPA's action on the pending section 126 petitions. The EPA recommends that commenters also submit suggested inventory revisions to the dockets for the section 126 proposal and the FIP proposal. By a future notification, EPA will reopen the comment period for those proposed actions to February 22, 1999 solely for the purpose of receiving such inventory revisions. Additionally, no changes to the emissions inventory will be made unless information, as specified in Section III.F.5 of the final NO_x SIP call, is provided to corroborate and justify the need for the requested modification. These revisions must be postmarked by February 22, 1999 and sent directly to the Docket Office listed in ADDRESSES (in duplicate form if possible). (Docket no. A-96-56 for the NO_x SIP call, A-97-43 for the section 126 proposal, and A-98-12 for the FIP proposal.) Sources and other non-State commenters should also send a copy of their comments concerning the inventory changes to their State air pollution control agency.

Individuals interested in modifications requested by commenters may review the materials as they are submitted and available in the dockets. With respect to the SIP call, within 60 days after the close of this comment period—i.e., by April 23, 1999—EPA will evaluate the data submitted by commenters and, if it is determined to be technically justified, revise the State budgets for the NO_x SIP call to reflect the new data.

For a comment to be considered, the data submitted in the request for modification must be submitted in electronic format (i.e., spreadsheet, data base, text file) and must be accompanied by information to support the requested change. The EPA has identified the specific data elements for each source sector that must be included in the electronic file submitted with any data modification request. For budget calculation purposes, emphasis should be on NO_x emissions, noting that other precursor emissions and modeling data are necessary for final development of the modeling inventory.

However, in many cases, not all of the inventory information needs to be corrected and resubmitted. For example, it may be the case that source-specific NO_x emission rates are incorrect, but all

stack and other emissions data are acceptable. In these cases, it is not necessary to resubmit the entire inventory record data. Only source identification information and additional data that require correction need to be resubmitted. In those cases where the majority of the data are incorrect or the submission is for a new, unaccounted for source, complete files with all data fields outlined in Section III.F.5 of the final rulemaking preamble must be submitted.

For those sources so indicated above, a simplified inventory revision submittal is acceptable and must include the following information:

- Source sector needing revision.
- Identification of the specific changes requested to the inventory.
- Reason for requested change.
- All of the following sector-specific information in electronic file format:

Electric Generating Units

Data on a source-specific basis including:

- Federal Information Placement System State Code.
- Federal Information Placement System (FIPS) County Code.
- Plant name.
- Plant ID numbers (ORIS code preferred (ORIS is a coding mechanism used by the Department of Energy to track plants with EGUs), State agency tracking number also or otherwise).
- Unit ID numbers (a unit is a boiler or other combustion device).
- Unit type (also known as prime mover; e.g., wall-fired boiler, stoker boiler, combined cycle, combustion turbine, etc.).
- Primary fuel on a heat input basis.
- Maximum rated heat input capacity of unit.
- Nameplate capacity of the largest generator the unit serves.
- 1995 and 1996 ozone season heat inputs.
- 1996 (or most recent) average NO_x rate for the ozone season.

Non-EGU Point Sources

Data on a source-specific basis including:

- Federal Information Placement System State Code.
- Federal Information Placement System (FIPS) County Code.
- Plant name.
- Plant ID numbers (National Emission Data System (NEDS), Aerometric Information Retrieval System/AIRS Facility Subsystem (AIRS/AFS), and State agency tracking number also or otherwise).
- Unit ID numbers.
- Primary source classification code (SCC).

- Maximum rated heat input capacity of unit.
- 1995 ozone season or typical ozone season daily NO_x emissions.
- 1995 existing NO_x control efficiency.

Stationary Area Sources

- Data on a sub-category specific basis including:
- Federal Information Placement System State Code.
 - Federal Information Placement System (FIPS) County Code.
 - Source classification code (SCC).
 - 1995 ozone season or typical ozone season daily NO_x emissions.
 - 1995 existing NO_x control efficiency.

Nonroad Mobile Sources

- Data on a sub-category specific basis including:
- Federal Information Placement System State Code.
 - Federal Information Placement System (FIPS) County Code.
 - Source classification code (SCC).
 - 1995 ozone season or typical ozone season daily NO_x emissions.

- 1995 existing NO_x control efficiency.

Highway Mobile Sources

- Data on a SCC or vehicle type basis including:
- Federal Information Placement System State Code.
 - Federal Information Placement System (FIPS) County Code.
 - Primary source classification code (SCC) or vehicle type.
 - 1995 ozone season or typical ozone season daily vehicle miles traveled (VMT).

The EPA is also accepting comments on VMT and nonroad mobile growth rates, VMT distribution by vehicle class, average speed by roadway type, inspection and maintenance program parameters, and other input parameters used in the calculation of highway vehicle emissions. These comments must be on a county-level basis and must include adequate evidence and explanation for any differences between the input parameters used in the final rulemaking budgets and the input parameters being proposed in the

comments. Comments also must be consistent with other State submittals, including SIPs, transportation plans and conformity demonstrations, and other documents, or must contain an explanation for the differences between the comments and these other recent submittals and a plan to correct these other submittals to make them consistent with the comments submitted in response to this notice.

This process will not change the timeframes for the FIP (63 FR 56394) or section 126 (63 FR 56292) actions. A courtesy copy of comments mailed to Greg Stella at the address listed above would be appreciated in addition to the formal submittal to the docket(s).

Correction to Table III-1

When EPA published the final SIP call, EPA inadvertently included as Table III-1, a previous version of numbers that do not match the final budget numbers for the SIP call (see 63 FR 57410). The following Table III-1 includes corrected numbers.

TABLE III-1.—STATE BUDGETS BY ENERGY SOURCE BASIS
[Higher of 1995 or 1996 EIA data]

State	Proposed input-based budgets fossil fuel-burning generators	Revised (final) input-based budgets fossil fuel-burning generators	Output-based budgets—all generation sources	Output-based budgets—all generation sources except nuclear	Output-based budgets fossil fuel-burning generators
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Alabama	30644	29051	34949	35186	32854
Connecticut	5245	2583	7703	5173	4471
Delaware	4994	3523	2400	3225	3428
District of Columbia	152	207	100	133	142
Georgia	32433	30255	32331	31819	30922
Illinois	36570	32045	44401	27982	29701
Indiana	51818	49020	32320	43430	45985
Kentucky	38775	36753	24930	33501	34281
Maryland	12971	14807	13329	13013	13256
Massachusetts	14651	15033	11054	13292	13541
Michigan	29458	28165	32383	32145	32566
Missouri	26450	23923	19856	22776	23577
New Jersey	8191	10863	12807	11265	11508
New York	31222	30273	39635	39572	32222
North Carolina	32691	31394	32113	30257	29966
Ohio	51493	48468	39923	47301	50187
Pennsylvania	45971	52000	53629	47172	48639
Rhode Island	1609	1118	2250	3022	3213
South Carolina	19842	16290	23330	14132	13877
Tennessee	26225	25386	26499	26172	24853
Virginia	20990	18258	19155	15753	15619
West Virginia	24045	26439	22930	30811	32636
Wisconsin	17345	17972	15798	16693	16379
Total	563785	543825	543825	543825	543825

Budget Reductions for Large EGUs and Non-EGUs

The 2007 baseline inventory for large EGUs and non-EGUs is based on the universe of sources in the 1995 inventory and a growth factor which accounts both for increases in use of those sources and for new sources that commence operation after 1995. As explained in the October 27, 1998, NO_x SIP Call and as further clarified later in today's notice, the final State budgets cap emissions on all large EGUs and non-EGUs. This includes both sources that operated in 1995 and were part of the baseline inventory and new sources that commence operation after 1995. Since States must implement emission reduction strategies that either cap emissions from these sources at the levels specified in the SIP Call budgets or achieve equivalent reductions, all boilers and turbines must be classified as either EGUs or non-EGUs and as small or large. In this notice, EPA reiterates how boilers and turbines that existed in 1995 were classified. As explained above, EPA will be finalizing a revised 1995 inventory based on additional comments received. The classifications that EPA uses in this inventory are the ones that EPA will use in 2007 to determine if a unit should be included in the EGU or non-EGU portion of this budget. This notice also clarifies how EPA will classify units that commence operation after 1995.

Clarification of EGU Classification for Purposes of Estimating Budget Reductions

The following discussion clarifies EPA's classification of units as EGUs. This clarification also applies to the proposed FIP and the EPA action under section 126.¹

Consistent with the supplemental notice of proposed rulemaking (63 FR 25902, May 11, 1998) and the accompanying technical support document related to budget development, EPA took a two-step approach to determining which of the following categories a boiler or turbine fit into: large EGU, small EGU, large non-EGU or small non-EGU. First, EPA determined if a boiler or turbine fit into the category of EGU or non-EGU. The EPA then determined if the boiler should be classified as large or small.

The EPA used three sources of data for determining if a generator's purpose included generation of electricity for sale and thus qualified the unit connected to the generator as an EGU.

First, EPA treated as EGUs all units that are currently reporting under Title IV of the Clean Air Act. Second, EPA included as EGUs any additional units that were serving generators reporting to the Energy Information Administration (EIA) using Form 860 in 1995. Form 860 is submitted for utility generators. Third, EPA included units serving generators that reported to EIA using Form 867 in 1995. Since Form 867 is submitted by non-utility generators, including generators "which consume all of their generation at the facility," EPA excluded any units for which EPA had information indicating that the unit was not connected to any generators that sold any electricity. This was primarily determined by excluding units that were not listed as sources that sell power under contract to the electric grid using the electric generation forecasts of the North American Electric Reliability Council.

Once EPA determined that a boiler or turbine should be classified as an EGU, EPA considered that unit a large EGU if it served a generator greater than 25 MWe and considered it a small EGU if it served a generator less than or equal to 25 MWe.

While EPA believes that this methodology was the best way to classify existing boilers and turbines given the data available, EPA does not believe that this is the best way to classify new boilers or turbines for regulatory purposes. The EPA will continue to use this methodology to classify units that operated on or before December 31, 1995 as EGUs or non-EGUs. Any requests to change the EGU/non-EGU categorization of a unit operating on or before December 31, 1995 that EPA has categorized as an EGU or a non-EGU or any requests to add a unit operating on or before December 31, 1995 that has not been categorized as an EGU or a non-EGU should follow the methodology based on data reported to EPA and EIA, outlined above. Once EPA responds to comments received, EPA does not intend to reclassify units that were in operation before January 1, 1996 because, as discussed below, EPA uses a different approach to classify units that commence operation on or after January 1, 1996. However, EPA may reconsider unit classifications in 2007 along with the 2007 transport reassessment.

The EPA believes there are two important reasons that the methodology outlined above is not appropriate to use on an ongoing basis for new boilers or turbines. First, EPA is concerned about the completeness of data using this methodology. The EPA has this concern

because there are limited consequences to not reporting to EIA and because EPA has no assurance that sources will continue to be required to report to EIA using the same forms. Second, because of changes in the electric generation industry and because of regulatory developments such as the SIP call, owners and operators of units may have an incentive to install small (25 MWe or less) generators to larger boilers or turbines that are primarily used for industrial processes and not electricity generation. Such sources should be considered large and be controlled.

For units commencing operation on or after January 1, 1996, EPA plans to use the following two-step process. First, EPA intends to classify as an EGU any boiler or turbine that is connected to a generator greater than 25 MWe from which any electricity is sold. This will be based on information reported directly to the State under the SIP (or EPA in the case of a FIP or section 126 action). The EPA believes this addresses the first concern about completeness of data, as discussed in the previous paragraph. Second, if a boiler or turbine is connected to a generator equal to or less than 25 MWe from which any electricity is sold, it will be considered a small EGU if it has the potential to use more than 50.0 percent of the usable energy from the boiler or turbine to generate electricity. This will address EPA's second concern (discussed in the previous paragraph) about owners or operators of large boilers and turbines that have small generators. All other boilers and turbines (including boilers and turbines connected to generators equal to or less than 25 MWe from which any electricity is sold and which have the potential to use 50.0 percent or less of the usable energy from the boiler or turbine to generate electricity) will be considered non-EGUs and the process described below should be used to classify those units as large or small. Once a unit has been classified, EPA does not intend to reclassify that unit, but may reconsider unit classification in 2007 along with the 2007 transport reassessment.

Clarification of Non-EGU Large Source Classification for Purposes of Estimating Budget Reductions

The following discussion clarifies EPA's classification of "large" and "small" sources for categories of the non-EGU point sources affected by the emissions budget reductions. The "large" non-EGU point source categories involved in the budget reductions are boilers, turbines, stationary internal combustion engines, and cement plants. The following method was used to

¹ If any comments are received on the following EGU classification, EPA will consider them in the context of its final section 126 and FIP actions.

identify "large" and "small" non-EGU boilers and turbines (for more detailed information refer to the "Development of Modeling Inventory and Budgets for Regional SIP Call" document, September 24, 1998, in docket A-96-56):

1. Where boiler heat input capacity data were available for a unit, those data were used. Units with such data that are less than or equal to 250 mmBtu are "small" and units greater than 250 mmBtu/hr are "large."

2. Where boiler heat input capacity data were not available for a unit, those data were estimated, as described in the NPR and SNPR. Units estimated to be greater than 250 mmBtu/hr are "large."

3. Where boiler heat input capacity data were not available for a unit and where the boiler capacity was estimated to be less than 250 mmBtu/hr, 1995 point-level emissions were checked for each unit. If the 1995 average daily ozone season emissions were greater than one ton, the unit was categorized as a "large" source; otherwise, the unit was categorized as a "small" source.

A stationary internal combustion engine and a cement plant were determined to be "large" if its 1995 average daily ozone season emissions were greater than one ton. The heat input capacity does not affect its classification as large or small.

Clarification to 40 CFR 51.121(f)(2)(ii)

This notice clarifies that 40 CFR 51.121(f)(2)(ii) requires that if a State controls large EGUs and large non-EGU boilers, turbines and combined cycle units for purposes of complying with the NO_x SIP call, those control measures must assure that collectively all such sources, including new or modified units, will not exceed the total NO_x emissions projected for such sources and that those control measures must be in place no later than May 1, 2003. The amendment made to 40 CFR 51.121(f)(2)(ii) in this correction notice also clarifies that if SIP rules allow the large EGUs and large non-EGU boilers, turbines, and combined cycle units to use credits from the State compliance supplement pool, those units may use credit from the State compliance supplement pool during the 2003 or 2004 control seasons.

Section 51.121(f)(2)(ii) in the October 27 final SIP call requires that if a State elects to impose control measures on fossil fuel-fired NO_x sources serving electric generators with a nameplate capacity greater than 25 MWe or boilers, combustion turbines or combined cycle units with a maximum design heat input greater than 250 mmBtu/hr, those measures must assure that collectively

all such sources, including new or modified units, will not exceed in the 2007 ozone season the total NO_x emissions projected for such sources. Section 51.121(b)(1)(i) requires that SIP revisions must contain control measures adequate to prohibit NO_x emissions in excess of the budget for that jurisdiction and 40 CFR 51.121(b)(1)(ii) requires that those control measures be implemented by May 1, 2003. Therefore, 40 CFR 51.121(f)(2)(ii) is amended to contain an explicit reference to 40 CFR 51.121(b)(1)(i) and (ii). This amendment clarifies that the control measures adopted for large EGUs and large non-EGU boilers, turbines, and combined cycle units sources, including new or modified units, must be in place by May 1, 2003."

Additionally, by referencing 40 CFR 51.121(b)(1)(i) (40 CFR 51.121(b)(1)(i) references 40 CFR 51.121(e) which provides for distribution of the compliance supplement pool) in 40 CFR 51.121(f)(2)(ii), this notice clarifies that if SIP rules allow large EGUs and large non-EGU boilers, turbines and combined cycle units to use credits from the State compliance supplement pool, those sources, including new or modified units, may demonstrate compliance in the 2003 and 2004 control seasons using credit from the compliance supplement pool.

Correction to 40 CFR 96.42

This notice corrects the formula for distributing unused allowances in the new source set-aside back to existing sources. The October 27 final SIP call mistakenly included an extra parenthesis in the text of 40 CFR 96.42. The text of 40 CFR 96.42 is corrected to remove the extra parenthesis so that the formula reads: Unit's share of NO_x allowances remaining in allocation set-aside = Total NO_x allowances remaining in allocation set-aside × (Unit's NO_x allowance allocation ÷ State trading program budget excluding allocation set-aside).

Correction to Page 57,404

On page 57,404, third column, the carryover sentence, beginning, "The Air Quality Modeling TSD . . ." is inaccurate and is replaced with the following: "The 'National Air Quality and Emissions Trends Report, 1996,' included in the docket as VI-C-18, contains information as to the reductions in ozone values that have resulted from these controls."

Administrative Requirements

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement

Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the *Federal Register*. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and is therefore not subject to review by the Office of Management and Budget. In addition, this action does not impose any enforceable duty, contain any unfunded mandate, or impose any significant or unique impact on small governments as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4). This action also does not require prior consultation with State, local, and tribal government officials as specified by Executive Order 12875 (58 FR 58093, October 28, 1993) or Executive Order 13084 (63 FR 27655 (May 10, 1998)), or involve special consideration of environmental justice related issues required by Executive Order 12899, February 16, 1999. This action is not subject to the requirements of the Regulatory Flexibility Act (5 U.S.C. 601-612) because EPA interprets the Regulatory Flexibility Act to apply only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Order has the potential to influence the regulation. This action is not subject to E.O. 13045 because it does not establish an environmental standard intended to mitigate health or safety risks. In addition, the National Technology Transfer and Advancement Act of 1997 (NTTAA) does not apply because today's action does not require the public to perform activities conducive to the use of voluntary consensus standards under that Act. The EPA's compliance with these statutes and Executive Orders for the underlying rule, the final NO_x SIP call, is discussed in 63 FR 57477-81 (October 27, 1998).

(The Environmental safety Risks) (62 FR 19... 97) because EPA interprets... 45 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Order has the potential to influence the regulation. This action is not subject to E.O. 13045 because it does not establish an environmental standard intended to mitigate health or safety risks. In addition, the National Technology Transfer and Advancement Act of 1997 (NTTAA) does not apply because today's action does not require the public to perform activities conducive to the use of voluntary consensus standards under that Act. The EPA's compliance with these statutes and Executive Orders for the underlying rule, the final NO_x SIP call, is discussed in 63 FR 57477-81 (October 27, 1998).

List of Subjects

40 CFR Part 51

Environmental protection, Air pollution control, Administrative practice and procedure, Carbon monoxide, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Transportation, Volatile organic compounds.

40 CFR Part 96

Environmental protection, Administrative practice and procedure, Air pollution control, Nitrogen dioxide, Reporting and recordkeeping requirements.

Dated: December 18, 1998.

Robert Perciasepe,

Assistant Administrator for Air and Radiation.

40 CFR parts 51 and 96 are amended as follows:

PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

1. The authority citation for part 51 continues to read as follows:

Authority: 42 U.S.C. 7401-7671q.

Subpart G—Control Strategy [Amended]

2. Section 51.121 is amended to revise paragraphs (e)(4) introductory text and (f)(2)(ii) to read as follows:

§ 51.121 Findings and requirements for submission of State implementation plan revisions relating to emissions of oxides of nitrogen.

(e) * * *

(4) If, no later than February 22, 1999, any member of the public requests revisions to the source-specific data and vehicle miles traveled (VMT) and nonroad mobile growth rates, VMT distribution by vehicle class, average speed by roadway type, inspection and maintenance program parameters, and other input parameters used to establish the State budgets set forth in paragraph (e)(2) of this section or the 2007 baseline sub-inventory information set forth in paragraph (g)(2)(ii) of this section, then EPA will act on that request no later than April 23, 1999 provided:

(f) * * *

(2) * * *

(ii) impose enforceable mechanisms, in accordance with paragraphs (b)(1) (i) and (ii) of this section, to assure that collectively all such sources, including

new or modified units, will not exceed in the 2007 ozone season the total NOx emissions projected for such sources by the State pursuant to paragraph (g) of this section.

PART 96—NOx BUDGET TRADING PROGRAM FOR STATE IMPLEMENTATION PLANS

3. The authority citation for part 96 continues to read:

Authority: U.S.C. 7401, 7403, 7410, and 7601.

4. Section 96.42 is amended in paragraph (f) to revise the formula immediately preceding the word "Where:" to read as follows:

§ 96.42 NOx allowance allocations.

(f) * * *

Unit's share of NOx allowances remaining in allocation set-aside = Total NOx allowances remaining in allocation set-aside x (Unit's NOx allowance allocation + State trading program budget excluding allocation set-aside)

[FR Doc. 98-34150 Filed 12-23-98; 8:45 am] BILLING CODE 6560-60-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 266 and 273

[FRL-6207-7]

RIN 2050-AD19

Universal Waste Rule (Hazardous Waste Management System; Modification of the Hazardous Waste Recycling Regulatory Program)

AGENCY: Environmental Protection Agency.

ACTION: Final rule; correcting amendments.

SUMMARY: The Environmental Protection Agency (EPA) is correcting errors that appeared in the Universal Waste Rule which was published in the Federal Register (FR) on May 11, 1995 (60 FR 25492). This final rule creates no new regulatory requirements; rather it: makes three corrections to the regulations governing management of spent lead-acid batteries that are reclaimed; corrects the definition of a small quantity universal waste handler; and clarifies the export requirements which apply to destination facilities when destination facilities act as universal waste handlers.

EFFECTIVE DATE: December 24, 1998.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA/Superfund Hotline at (800) 424-9346 (toll free) or TDD 800 553-7672 (hearing impaired). Contact the RCRA Hotline in the Washington, D.C. metropolitan area at (703) 412-9810 or TDD 703 412-3323. For specific information concerning the Universal Waste Rule, contact Mr. Bryan Groce at (703) 308-8750, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, mailcode 5304W. This rule is available on the Internet. Please follow these instructions to access the rule electronically: From the World Wide Web (WWW), type://www.epa.gov/epaoswr, then select option for Laws and Regulations. The official record for this action is kept in a paper format.

SUPPLEMENTARY INFORMATION:

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- 1. What is the statutory authority for this rule?
2. Does this rule create any new federal requirements?
3. What does this rule do?
4. Why are the clarifications and corrections necessary?
5. What other changes have been made as a result of this rule?
6. What federal requirements apply to spent lead-acid batteries?
7. Why are there two options for managing lead-acid batteries?
8. Is lead-acid battery regeneration a type of reclamation? If yes, why did EPA decide to regulate it differently from other lead-acid battery reclamation?
9. How does today's technical correction clarify requirements for handling spent lead-acid batteries that will be regenerated?
10. How does today's technical correction affect management requirements for storing lead-acid batteries before reclaiming them?
11. How does today's technical correction change the definition of "small quantity handler of universal waste"?
12. How is EPA correcting requirements related to exports of universal wastes?
13. Why isn't EPA proposing these changes for public comment and establishing an effective date later than the promulgation date?
14. Does this technical correction meet conditions described in the Executive Order 12866, the Regulatory Flexibility Act, the Unfunded Mandates Reform Act of 1995, the Paperwork Reduction Act, the National Technology Transfer and Advancement Act of 1995, and the Executive Orders 13045, 12875, and 13084?
15. Has EPA submitted this rule to Congress and the General Accounting Office?

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[FRL-XXXX-X]

Findings of Significant Contribution and Rulemaking on
Section 126 Petitions for Purposes of Reducing Interstate
Ozone Transport

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: In accordance with section 126 of the Clean Air Act (CAA), EPA is taking final action on petitions filed by eight Northeastern States seeking to mitigate what they describe as significant transport of one of the main precursors of ground-level ozone, nitrogen oxides (NOx), across State boundaries. Each petition specifically requests that EPA make a finding that NOx emissions from certain stationary sources emit in violation of the CAA's prohibition on emissions that significantly contribute to ozone nonattainment problems in the petitioning State. If EPA makes such a finding, EPA is authorized to establish Federal emissions limits for the sources. The eight Northeastern States that filed petitions are Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont.

Today, EPA is making final determinations that portions of six of the petitions are technically meritorious. The technically approvable portions of the petitions will be automatically deemed granted or denied at certain later dates pending certain actions by the States and EPA regarding State submittals in response to the final NOx State implementation plan call (NOx SIP call). This rule describes the schedule and conditions under which applicable final findings on the petitions would be automatically triggered.

The EPA intends to implement the section 126 control remedy through a Federal NOx Budget Trading Program. The trading program would apply to sources in the source categories for which a final finding is ultimately granted. In today's rule, EPA is finalizing the general parameters of the trading program. The EPA is committing to promulgate the details of the trading program by July 15, 1999. The

below. The EPA's rationale for determining that large EGU boilers and turbines and large non-EGU boilers and turbines contribute significantly is explained in Section II.J below.

1. Proposed EGU Source Classification

The section 126 NPR proposed the same two-step approach as used in the final NOx SIP call for determining which of the following categories a boiler or turbine fits into: large EGU, small EGU, large non-EGU, or small non-EGU. In the final NOx SIP call, EPA first determined if a boiler or turbine should be classified into the category of EGU or non-EGU. The EPA then determined if the boiler or turbine should be classified as large or small.

The EPA used three sources of data for determining if an existing generator's purpose included generation of electricity for sale and thus qualified the unit connected to the generator as an EGU. First, EPA treated as EGUs all units that are currently reporting under title IV of the CAA. Second, EPA included as EGUs any additional units that were serving generators reporting to the Energy Information Administration using Form 860 in 1995. Form 860 is submitted for utility generators. Third, EPA included units serving generators that reported to Energy Information Administration using Form 867 in 1995. Since Form 867 is submitted by non-utility generators, including generators "which consume all of their generation at the facility," EPA excluded any units for which EPA had information indicating that the unit was not connected to any generators that sold any electricity. This was determined by excluding units that were not listed as sources that sell power under contract to the electric grid using the electric generation forecasts of the North American Electric Reliability Council.

Once EPA determined that a boiler or turbine should be classified as an EGU, EPA considered that unit to be a large EGU if it served a generator greater than 25 MWe and considered it a small EGU if it served a generator less than or equal to 25 MWe.

The EPA explained that there are two important reasons that the methodology outlined above is not appropriate to use on an ongoing basis for new boilers or turbines. First, EPA was concerned about the completeness of data using this methodology. The EPA had this concern because there are limited consequences to not reporting to Energy Information Administration and because EPA has no assurance that sources will continue to be required to report to Energy Information

Administration using the same forms. Second, because of changes in the electric generation industry and because of regulatory developments such as the NOx SIP call, owners and operators of units may have an incentive to install, operate and sell electricity from small (25 MWe or less) generators connected to larger boilers or turbines that are primarily used for industrial processes and not electricity generation. Such sources could have significant NOx emissions.

To ensure that owners and operators of such units did not install a small generator and sell small amounts of electricity merely to circumvent the requirements of this rule, EPA established a slightly different process for categorizing units that commenced operation on or after January 1, 1996. First, EPA explained it would classify as an EGU any boiler or turbine that is connected to a generator greater than 25 MWe from which any electricity is sold. This would be based on information reported directly to the State under the SIP (or EPA in the case of a FIP or section 126 action). The EPA stated that this addresses the first concern about completeness of data, as discussed in the previous paragraph. Second, if a boiler or turbine is connected to a generator equal to or less than 25 MWe from which any electricity is sold, it would be considered a small EGU if it has the potential to use more than 50.0 percent of the usable energy from the boiler or turbine to generate electricity. For example, this means that a 260 mmBtu boiler connected to a 20 MWe generator that is used to generate some electricity for sale would be considered a small EGU. On the other hand, a 600 mmBtu boiler connected to a 20 MWe generator that is used to generate some electricity for sale would be considered a large non-EGU. This addressed EPA's second concern (discussed in the previous paragraph) about owners or operators of large boilers and turbines that have small generators.

All other boilers and turbines (including boilers and turbines connected to generators equal to or less than 25 MWe from which any electricity is sold and which have the potential to use 50.0 percent or less of the usable energy from the boiler or turbine to generate electricity) were considered non-EGUs. The EPA stated that it will use the process described below to classify those units as large or small. The EPA stated that, once a unit had been classified in the base inventory, EPA did not intend to reclassify that unit, but explained that it might reconsider unit classification in 2007 along with the 2007 transport

reassessment.

2. Proposed Non-EGU Boiler and Turbine Source Classification

In the section 126 NPR, the non-EGU point source categories that EPA determined to be subject to the section 126 reduction requirements are large boilers and turbines. The EPA proposed in the section 126 NPR to use the same method to identify "large" and "small" non-EGU boilers and turbines that was used in the final NOx SIP call (for more detailed information refer to "Development of Modeling Inventory and Budgets for Regional SIP Call," September 24, 1998). The methodology is as follows:

1. Where boiler heat input capacity data were available for a unit, EPA used that data. Units with such data that are less than or equal to 250 mmBtu are "small" and units greater than 250 mmBtu/hr are "large."
2. Where boiler heat input capacity data were not available for a unit, EPA estimated that data, as described in the NOx SIP call NPR and SNPR. Units estimated to be greater than 250 mmBtu/hr are "large."
3. Where boiler heat input capacity data were not available for a unit and where the boiler capacity was estimated to be less than 250 mmBtu/hr, EPA checked 1995 point-level emissions for each unit. If the 1995 average daily ozone season emissions were greater than one ton, the unit was categorized as a "large" source; otherwise, the unit was categorized as a "small" source.

3. Issues Raised by Commenters on EGU/Non-EGU Classification

One commenter, representing the pulp and paper industry, argued that small cogeneration units should not be treated as EGUs and EPA should continue to apply the exemption from treatment as utility units established under new source performance standards (NSPS) and the Acid Rain Program for cogeneration units that produce an annual amount of electricity for sale less than one-third of their potential electrical output capacity or equal to or less than 25 MWe. (Note that the regulations implementing title IV converted the annual 25 MWe threshold to 129,000 MWe hrs of electricity which is equivalent to 25 MWe per hour times 8760 hours per year.) The commenter also noted that section 112 of the CAA defines "electricity steam generating unit" excluding cogeneration units using the

same thresholds. The commenter made several assertions to support its argument. First, the commenter said the classification of small cogeneration units would be contrary to 20 years of Agency precedent under the NSPS and Acid Rain programs. The CAA encourages cogeneration by exempting small cogenerators below the one-third/25 MWe trigger from the Acid Rain program and from section 112. Deviating from this historical precedent was not a logical outgrowth of the proposed NOx SIP call since the proposed NOx SIP call did not discuss that EPA would treat small cogeneration units as EGUs or differently than under the NSPS and Acid Rain programs. Second, the commenter argued the uniqueness of boiler design, fuel type, and operations of individual industrial boilers makes these units less amenable to achieving the utility standards.

Another commenter expressed concerns that defining "electrical generating units solely on the basis of electrical generating capacity without regards to boiler size is patently unfair to a number of industrial boilers." They explained that "from a practical standpoint, emissions from a 250 mmBTU/hr coal-fired industrial boiler are the same whether it is used to generate electrical power or not." The commenter continued that EPA should treat all industrial boilers alike whether or not they generate electrical power.

Several other commenters expressed concerns that the definition in the trading rule was more inclusive than the definition used for setting forth the control requirements. One commenter suggested specific language to remedy this concern.

As EPA explained in a clarification notice published on December 24, 1998 (See 63 FR at 71223), EPA used two classification methods to determine whether a unit should be classified as an EGU or a non-EGU. One method (based on whether a unit served a generator from which electricity was sold under a firm contract) applied to units that were in existence in 1995 and were part of the base year emission inventory, and the other method (based on whether a unit serves a generator from which any electricity is sold) applies to units that came into existence on or after January 1, 1996. Both of these methodologies are explained above (in sections II.I.C1 and C.2). In addition, the methodology used to classify units in the base-year inventory was explained in the document, "Development of Modeling Inventory and Budgets for Regional NOx SIP call." A draft of this document was issued on March

23, 1998 and a final document was issued on September 24, 1998, and is available in the NOx SIP call docket.

The methodology used to classify existing units as EGUs or non-EGUs was based upon whether or not a unit was connected to a generator that produced electricity for sale under firm contract to the grid. Since most industrial units are not currently involved in sales under firm contract to the grid, this leads to most industrial cogeneration units being classified as non-EGUs. The EPA has several concerns about changing from this methodology to a methodology based upon a one-third potential capacity/25 MWe threshold, as suggested by the commenter. The first is that EPA has not used that threshold in the rulemaking to date, and does not have information on all existing units necessary to apply that threshold to all the units. For example, EPA does not have information to identify all the units that actually cogenerate and the information on how much electricity is sold from these units. The commenter did not even identify the units owned by its members, much less provide that information for identified units.

Second, if EPA did have the information for each unit to determine if the unit's classification should be changed, EPA is concerned that the classification for a number of units would change, apparently none of which are owned or operated by the commenter's members. The commenter noted that changing the definition to be based upon a one-third potential capacity/25 MWe threshold "would not alter the Agency's baseline emissions inventory." Since the commenter never identified any existing units where classification is different in the inventory under the Agency's classification method than under the commenter's classification method, EPA concludes that changing the methodology would not change the inventory classification of any units owned or operated by the commenter's members. The EPA believes that this is because using the criteria of selling under firm contract to the grid classifies most industrial units that generate small amounts of electricity as non-EGUs rather than EGUs.

However, EPA maintains that there is the potential that a number of other units could be reclassified if EPA applied the one-third potential capacity/25 MWe threshold. This could change the classification of a large EGU to a large non-EGU, the classification of a large non-EGU to a large EGU or the classification of a small EGU to a large non-EGU. For example, a unit that

is currently classified as a large EGU could become a large non-EGU if, even though the unit was selling electricity under a firm contract, it sold less than one third of its potential electrical output capacity. An independent power producer unit that is connected to a generator greater than 25 MWe and that cogenerates and provides both steam and electricity could fit into this category. A unit that is currently classified as a large non-EGU could become a large EGU if it did not sell power under a firm contract, but did sell more than one third of its potential electrical output capacity. An industrial boiler that cogenerates and is connected to a generator greater than 25 MWe could fit into this category. A unit that is currently classified as a small EGU and sells under firm contract, but less than one-third of its potential electrical output capacity, could become a large non-EGU if the unit was greater than 250 mmBtu and the generator to which it was connected was less than 25 MWe. An independent power producer unit that cogenerates could fit into this category. In short, the adoption of the commenter's classification methodology could result in reclassification leading to more stringent, rather than less stringent, regulation of some cogeneration facilities

The EPA also does not agree with the commenter's arguments: (1) that deviating from the classification that EPA has used for cogeneration units for 20 years was not a logical outgrowth of the proposed NOx SIP call and that no discussion was included in the proposal that small cogeneration units would be treated as EGUs or differently than under the NSPS and Acid Rain programs; or (2) that the uniqueness of boiler design, fuel type, and operations of individual industrial boilers makes these units less amenable to achieving the reduction requirements for large EGUs.

In prior regulatory programs, EPA has used the criteria of producing an annual amount of electricity for sale less than one-third of a unit's potential electrical output capacity or less than 25 MWe. However, these criteria were not applied in the same way in each of these prior programs and recent, ongoing changes in the electric power industry undermine the basis for the criteria, and justify using different criteria for the new units, in today's action. The Agency began using the one-third potential capacity/25MWe cutpoint in 1978, in 40 CFR part 60, subpart Da, setting forth new source performance standards for "electric utility steam generating

units." In that case, the cutpoint was not used to exempt units entirely from NSPS. Rather, it was used to classify them as either "electric utility steam generating units" that would be subject to the new standards under subpart Da or to classify them as non-utility steam generating units that would continue to be subject to the requirements under subpart D and would subsequently become subject to more stringent standards for "Industrial-Commercial-Institutional Steam generating units" under subpart Db. As the commenter noted, this distinction between utility and non-utility units continued under the Clean Air Act Amendments of 1990, in both title IV and section 112. This cutpoint applied to all steam generating units, not just cogeneration facilities. The cutpoint was used as a proxy for utility vs. non-utility ownership of the units, the assumption being that a unit involved in electricity sales at or below the cutpoint was owned by a company that was in a business other than electric generation and so was a utility.

Since 1990 there have been dramatic changes in the electric power industry associated with the emergence of competitive markets for electricity generation where non-utility generators compete to an increasingly significant extent with traditional utilities. As these changes occur, it becomes less and less appropriate to differentiate between utilities and non-utilities that produce electricity. The Energy Policy Act of 1992 reflected these types of changes in the electric power industry by recognizing a whole new category of non-utility generators, wholesale generators that directly compete with utility generators. The Federal Energy Regulatory Commission's 1996 order adopting open transmission access and the actions of many States (currently at least 18 States) that are in the process of deregulating electric power generation have further blurred the distinction between utilities and non-utilities. Other federal agencies that deal with the power industry have realized that historical categorizations of the industry are no longer appropriate. For instance, the Energy Information Agency is in the process of streamlining its reporting requirements so that there will no longer be a distinction between reporting by utility generators and by non-utility generators.

In the NOx SIP call rulemaking, that EPA expressed concern that, under a deregulated electricity market, it is important to consider all NOx emissions sources that generate electricity. For instance, in the

supplemental notice of proposed rulemaking under the NOx SIP call, EPA explained that:

Additionally, with deregulation of electric utilities, it is not clear how ownership of the electricity generating facilities will evolve. Therefore, EPA proposes to include all large electricity generating sources, regardless of ownership, in the trading program. As there is no relevant physical or technological difference between utilities and other power generators, the same monitoring provisions and the size cut-off of greater than 25 MWe are applicable to all units which serve generators. 63 FR at 25923.

With regard to the feasibility of meeting the "utility" standards, the above commenter made several technical arguments about why non-utility units are fundamentally different from utility sources. In particular, the commenter argued that because of the need to vary loads significantly, many industrial boilers cannot operate at the conditions required to obtain maximum NOx reduction using combustion controls. In addition, the commenter argued that pulp and paper mill boilers have technical limitations on the installation of selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR), due to wide and rapid load and lower operating temperatures. Furthermore, the commenter does not believe there will be a significant number of allowances available or that the assumption of allowance availability should be used to justify higher costs for industrial sources. Moreover, the commenter argues that some affected States have expressed hesitancy to participate in interstate or even intrastate NOx trading programs.

The EPA continues to believe that industrial cogeneration units can achieve similar NOx emission reductions as utility units. Post-combustion NOx control technologies, like SNCR and SCR, are available to industrial units that cannot achieve NOx reductions using combustion controls. Both SCR and SNCR are proven technologies demonstrated on industrial and utility units, including paper and pulp industry units. See *White Paper - Selective Catalytic Reduction (SCR) for Controlling NOx Emissions*, ICAC, 1997 and *White Paper - Selective Non-Catalytic Reduction (SNCR) for Controlling NOx Emissions*, ICAC, 1997. At the same time, this rulemaking provides for multiple compliance options including trading of allowances. The Agency believes that a significant number of allowances will be available for trading. The Integrated Planning

Model (IPM) analysis shows a significant number of allowances will be available in 2003 when trading begins (see the Regulatory Impact Analysis for further discussion). The compliance supplement pool also provides further allowances in the trading market (see compliance supplement pool discussion in Section III below). In addition, EPA is aware of several States in the process of developing a trading program under the NOx SIP call. Furthermore, a trading program will be promulgated for this section 126 rulemaking.

For all of these reasons, EPA believes that it is appropriate to consider all units that generate electricity for sale as one source category, regardless of whether the owners and operators of the units are traditional utilities, independent power producers, or industrial companies. (Indeed, it may be appropriate at some time in the future to consider all units generating electricity, whether for sale or internal use, as a single category). However, for purposes of this rulemaking, EPA is continuing to apply to existing units the definition of EGU based on firm-contract sales, essentially as clarified in the December 24, 1998 correction notice. This definition does not classify either all existing or new units that generate electricity, or all existing or new units that generate electricity for sale, as EGUs. For example, industrial units that generate electricity only for internal use will be considered non-EGUs. Furthermore, most existing industrial units that sell small amounts of electricity will also not be considered EGUs, because most of these units do not sell electricity under firm contract. Even though EPA is not basing the EGU and non-EGU definitions on the one-third potential capacity/25 MWe threshold supported by the commenters, EPA believes that the definition for existing units classifies the units of the commenter's members in a way that is consistent with the way the commenters have suggested those units should be classified, i.e., as non-EGUs.

The EGU and non-EGU definitions based on any sales of electricity will apply to units that commence operation on or after January 1, 1999. These definitions will not apply to any of the units referenced by the commenter (e.g., the units referenced, but not identified, in the commenter's April 7, 1999 comments for which the commenter provided information on actual, annual electricity sales). Thus, in general, any new units that serve generators involved in electricity sales will be EGUs. The EPA

intends to make parallel clarifications to the definition of EGU under the NOx SIP call rulemaking. The EPA believes that the definition of EGU needs to be consistent across the NOx SIP call, section 126, and FIP rulemakings because it is possible that at one time a source might be subject to control requirements under one of these mechanisms, while at another time a source might be subject to control requirements under another one of these mechanisms. Changing the category that a source has been placed in because of this change in regulatory structure could be confusing and burdensome for the source.

While EPA is not including all sources that generate electricity for sale or internal use as EGUs at this time, EPA may for all of the reasons explained above, consider whether this would be appropriate in future rulemakings.

4. Final Rule EGU/Non-EGU Classification

In summary under today's final rule, EPA will take a three-step approach to determining which of the following categories a boiler or turbine fit into: large EGU, small EGU, large non-EGU, or small non-EGU. First, EPA will determine the date upon which a unit commenced operation. Second, EPA will determine if a boiler or turbine should be classified into the category of EGU or non-EGU by applying the appropriate criteria depending on the date on which the boiler or turbine commenced operation. Finally, EPA will determine if the boiler or turbine should be classified as large or small.

For units that commenced operation before January 1, 1999, EPA will classify as an EGU any boiler or turbine that sells any electricity to the grid under firm contract. For units that commenced operation on or after January 1, 1999, EPA intends, in general, to classify as an EGU any boiler or turbine that produces any amount of electricity for sale.

Once EPA determines that a boiler or turbine should be classified as an EGU, EPA then will classify the unit as a small or large EGU. For a unit that commenced operation before January 1, 1999, EPA will consider the unit a small EGU if it serves a generator less than or equal to 25 MWe and a large EGU if it serves a generator greater than 25 MWe. For a unit that commenced operation on or after January 1, 1999 and sells any electricity, EPA will consider the unit a small EGU if it serves a generator that is less than or equal to 25 MWe and that has the potential to use more than 50 percent of the potential electrical output

capacity of the unit. Units that serve generators greater than 25 MWe and that sell any electricity will be considered large EGUs.

All other boilers and turbines will be considered non-EGUs. This includes boilers and turbines that commence operation on or after January 1, 1999 connected to generators equal to or less than 25 MWe from which any electricity is sold and that have the potential to use 50 percent or less of the potential electrical output capacity of the boiler or turbine. This also includes any unit that commenced operation before January 1, 1999 that did not produce electricity for sale under firm contract.

Non-EGUs will be considered large if their maximum rated heat input capacity is greater than 250 mmbtu/hour and will be considered small if their maximum rated heat input capacity is equal to or less than 250 mmbtu/hour.

The EPA intends to address comments related to inconsistencies between this definition and the applicability requirements of part 97, when EPA promulgates part 97 in July.

J. Cost Effectiveness of Emissions Reductions

As described in Section II.A, above, one part of the significant-contribution interpretation that EPA applied in the NOx SIP call rule, and that EPA applies for purposes of today's final rule, is the extent to which "highly cost-effective" NOx control measures are available for the types of stationary sources named in the petitions²⁷. As in the NOx SIP call rule (63 FR at 57399) and the proposed section 126 rule (63 FR at 56304), the EPA has selected these highly cost-effective measures by examining the technological feasibility, administrative feasibility and cost-per-ton-reduced of various multi-state ozone season NOx control measures in light of other actions taken by EPA and States to control NOx.

1. Identifying Highly Cost Effective NOx Controls Levels

²⁷As discussed in this section, the highly cost-effective NOx controls happen to apply only to large stationary sources. Under section 126, EPA can make a finding for "any major source or group of stationary sources." In other words, even if not all sources subject to this action were major, they would be part of a group of stationary sources that contribute significantly to nonattainment and hence could potentially be subject to a finding.

For the reasons set forth in the preamble, part 52 of chapter 1 of title 40 of the Code of Federal Regulations is amended as follows:

PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7671q.

Subpart A - General Provisions [amended]

2. Subpart A is amended to add §52.34 to read as follows:

§52.34 Action on petitions submitted under section 126 relating to emissions of nitrogen oxides.

(a) Definitions. For purposes of this section, the following definitions apply:

(1) *Administrator* means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.

(2) *Large Electric Generating Units (large EGUs)* means:

(i) For units that commenced operation before January 1, 1997, a unit serving during 1995 or 1996 a generator that had a nameplate capacity greater than 25 MWe and produced electricity for sale under a firm contract to the electric grid.

(ii) For units that commenced operation on or after January 1, 1997 and before January 1, 1999, a unit serving at any time during 1997 or 1998 a generator that had a nameplate capacity greater than 25 MWe and produced electricity for sale under a firm contract to the electric grid.

(iii) For units that commence operation on or after January 1, 1999, a unit serving at any time a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale.

(3) *Large Non-Electric Generating Units (large non-EGUs)* means:

(i) For units that commenced operation before January 1, 1997, a unit that has a maximum design heat input greater than 250 mmBtu/hr and that did not serve during 1995 or 1996 a generator producing electricity for sale under a firm contract to the electric grid.

(ii) For units that commenced operation on or after January 1, 1997 and before January 1, 1999, a unit that has a maximum design heat input greater than 250 mmBtu/hr and that did not serve at any time during 1997 or 1998 a generator producing electricity for sale under a firm contract to the electric grid.

(iii) For units that commence operation on or

after January 1, 1999, a unit with a maximum design heat input greater than 250 mmBtu/hr that:

(A) At no time serves a generator producing electricity for sale; or

(B) At any time serves a generator producing electricity for sale, if any such generator has a nameplate capacity of 25 MWe or less and has the potential to use 50 percent or less of the potential electrical output capacity of the unit.

(4) *New sources* means new and modified sources.

(5) *NOx* means oxides of nitrogen.

(6) *NOx allowance* means an authorization by the permitting authority or the Administrator to emit up to one ton of nitrogen oxides during the control period of the specified year or of any year thereafter.

(7) *OTAG* means the Ozone Transport Assessment Group (active 1995-1997), a national work group that addressed the problem of ground-level ozone and the long-range transport of air pollution across the Eastern United States. The OTAG was a partnership between EPA, the Environmental Council of the States, and various industry and environmental groups.

(8) *Ozone season* means the period of time beginning May 1 of a year and ending on September 30 of the same year, inclusive.

(9) *Potential electrical output capacity* means, with regard to a unit, 33 percent of the maximum design heat input of the unit.

(10) *Unit* means a fossil-fuel fired stationary boiler, combustion turbine, or combined cycle system.

(b) Purpose and Applicability. Paragraphs (c) through (h) of this section set forth EPA's affirmative technical determinations, with respect to the national ambient air quality standards (NAAQS) for ozone, that certain new and existing sources of emissions of nitrogen oxides ("NOx") in certain States emit or would emit NOx in amounts that contribute significantly to nonattainment in, or interfere with maintenance by, one or more States that submitted petitions in 1997-1998 addressing such NOx emissions under section 126 of the Clean Air Act. (As used in this section, the term new source includes modified sources, as well.) Paragraph (i) of this section sets forth EPA's decisions about whether to grant or deny each of those petitions, and the remainder of this section sets forth the emissions-reduction requirements that will apply to the affected sources of NOx emissions to the extent any of the petitions are granted.

(1) The States that submitted such petitions are Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont (each of

Commonwealth of Pennsylvania
GOVERNOR'S OFFICE

EXECUTIVE ORDER

Subject: Regulatory Review and Promulgation		Number: 1996-1
Date: February 6, 1996	Distribution: B	By Direction Of:  THOMAS J. RIDGE, GOVERNOR

- WHEREAS, the volume and scope of regulations promulgated by Commonwealth agencies has grown at an alarming rate in recent years; and
- WHEREAS, a regulation should be promulgated only after a determination that it is necessary to address a compelling public interest; and
- WHEREAS, political subdivisions and the private sector have often been asked to comply with regulations that were drafted and promulgated without meaningful input from these members of the regulated community; and
- WHEREAS, burdensome regulations have placed undue restrictions on the regulated community and have hampered Pennsylvania's ability to compete effectively with other states; and
- WHEREAS, despite the increasing volume and burden of regulations, they remain an appropriate and necessary means of protecting the public health and safety.

NOW, THEREFORE, I, Thomas J. Ridge, Governor of the Commonwealth of Pennsylvania, by virtue of the authority vested in me by the Constitution of the Commonwealth of Pennsylvania, the Regulatory Review Act, and other laws, do hereby establish the following procedures regarding the review and promulgation of regulations:

- 1. General Requirements.** In the drafting and promulgating of new regulations and the application and review of existing regulations, all agencies shall adhere to the following principles:
- a. Regulations shall address a compelling public interest.
 - b. Costs of regulations shall not outweigh their benefits.
 - c. Regulations shall be written in clear, concise and, when possible, nontechnical language.

- d. Regulations shall address definable public health, safety, or environmental risks.
- e. Where federal regulations exist, Pennsylvania's regulations shall not exceed federal standards unless justified by a compelling and articulable Pennsylvania interest or required by state law.
- f. Compliance shall be the goal of all regulations.
- g. Where viable nonregulatory alternatives exist, they shall be preferred over regulations.
- h. Regulations shall be drafted and promulgated with early and meaningful input from the regulated community.
- i. Regulations shall not hamper Pennsylvania's ability to compete effectively with other states.
- j. All agency heads shall be held directly accountable for regulations promulgated by their respective agencies.

2. Evaluation of Existing Regulations.

- a. Existing regulations shall be reviewed by agencies for consistency with the aforementioned principles. Any regulations that are inconsistent with these principles shall be considered for amendment or repeal.
- b. Agency heads shall have the flexibility to construct a program that reviews their existing regulations to assure consistency with these principles. A plan and schedule for review of existing regulations is to be submitted to the Governor's Policy Office within six months of the effective date of this order. All review programs shall commence within one year of the effective date of this order.
- c. Regulations proposed for repeal should be submitted to the General Counsel, Secretary of the Budget, and Governor's Policy Director along with a Repeal Analysis Form. The analysis shall state:
 - The name of the agency.
 - The name of a contact person at that agency.
 - A short title of the regulation.
 - An explanation of the regulation.
 - A justification for the proposed repeal.
 - A proposed schedule for repeal – noting any public comment periods.
 - Any costs and/or savings associated with the repeal.

d. If a statute prohibits the repeal of a regulation that the agency deems to be inconsistent with the aforementioned principles, the agency head shall submit to the General Counsel, Governor's Policy Director, and Secretary for Legislative Affairs the specific citation for the statute that prohibits the repeal and the citation for any regulation that is determined to be inconsistent with the aforementioned principles, the nature of and reason for the inconsistency, and a recommendation for legislative action, if appropriate.

3. Pre-Drafting and Drafting Guidelines.

a. Before drafting a regulation, agencies, where practical, shall undertake extensive public outreach to those who are likely to be affected by the regulation. Creating advisory committees, using regulatory negotiation, and developing other creative procedures are encouraged as means to solicit the public's input during the regulatory development process.

b. Those to be affected by the regulation should continue to be consulted during the drafting process. When appropriate, members of the regulated community should be involved with the formulation of language, the development of standards, and any other areas in which the regulated community has an interest and/or can provide insight. During the regulation development and drafting process, agencies should advise and consult with the Governor's Policy Office, Office of General Counsel, and the Budget Office whenever the agency determines that any such involvement would hasten the review process.

c. Each agency shall develop its own policies regarding public involvement tailored best to meet the needs of the agency and the regulated community.

d. Within six months of the effective day of this order, agencies shall submit to the Governor's Policy Office their internal guidelines for pre-drafting and drafting public outreach.

4. Review by Governor's Office.

a. Prior to submitting a proposed rulemaking, the agency head shall evaluate each regulation and attest to the fact that the regulation addresses a compelling public need that can be best remedied by the promulgation of the regulation.

b. The agency head shall submit to the General Counsel, Secretary of the Budget, and Governor's Policy Director a written Regulatory Analysis. The analysis shall state:

- The name of the agency.
- The name of a contact person at that agency.
- A short title for the regulation and a citation from the Pennsylvania Code.
- Whether the regulation is a proposed, final-form or final-omitted rulemaking.
- A brief, clear and, if possible, nontechnical explanation of the regulation.
- The statutory authority or mandate for the regulation.
- The compelling public need that justifies the regulation.
- The public health, safety, or environmental risks associated with nonregulation.
- Individuals or groups that are likely to benefit from the regulation.

- Individuals, groups, or entities that will be required to comply with the regulation.
- The outreach conducted by the agency with the regulated community prior to submission of the regulation.
- An estimate of the costs and/or savings associated with compliance and implementation.
- A cost/benefit analysis of the regulation.
- Nonregulatory alternatives considered and the reasons for their dismissal.
- Alternative regulatory schemes considered and the reasons for their dismissal.
- A statement of the compelling Pennsylvania interest if the regulation exceeds federal standards.
- Any requirements that would place Pennsylvania at a competitive disadvantage compared to other states.
- An intra-agency review schedule for the regulation.

c. Each regulation submitted for review shall contain a brief preamble, written in clear and concise language, which shall describe in nontechnical terms the compelling public need the regulation is designed to address, what the regulation requires in legal and practical terms, and who the regulation is likely to affect.

d. The regulatory analysis, along with the preamble and draft regulation, will be reviewed by the Office of General Counsel for form, language, and legal authority. The Governor's Policy Office will review the request to determine that public interest is compelling, that no viable alternative to the regulation exists, and that the costs of the regulation reasonably relate to the benefits. The Office of General Counsel will also consider whether the proposed regulation exceeds federal standards. If the regulation does exceed federal standards, the Policy Office will then evaluate whether the regulation is justified by a compelling and unique Pennsylvania interest. The Budget Office will evaluate the cost analysis prepared by the agency and prepare a fiscal note for the regulation.

e. No agency shall proceed with a proposed, final-form or final-omitted regulation until the General Counsel, Secretary of the Budget, and Policy Director have informed the agency that the regulation is consistent with the regulatory principles and overall policies of the Administration. Review by these three offices will be conducted in a fair and timely manner.

5. Nonregulatory Documents.

a. Nonregulatory public documents such as internal guidelines, policy statements, guidance manuals, decisions, rules and other written materials that provide directives, guidance, or other relevant compliance related information to the public shall be cataloged by every agency.

b. The cataloged titles of these documents, along with an agency contact and phone number, shall be published in the Pennsylvania Bulletin on August 3, 1996. Each year thereafter every agency shall publish and update its list in the Pennsylvania Bulletin on the first Saturday in August.

6. **Petitions.** To further the goal of greater public participation in the regulatory process; individuals, groups, and businesses are encouraged to use the regulatory petition process outlined in *1 PA Code Section 35.18*. Agencies that have not already done so shall develop internal procedures to receive and review petitions in a fair and timely manner.

7. **Continual Review of Regulations.** All regulations shall be reviewed in accordance with the review schedule published annually by each agency. As part of its review, the agency shall determine whether the regulation continues to effectively fulfill the goals for which it was intended and remains consistent with the previously-mentioned principles.

8. **Regulatory Agendas.** Semiannually, on February 1 and July 1, each agency head shall submit to the General Counsel, the Secretary of the Budget, and the Governor's Policy Office Director, for publishing in the *Pennsylvania Bulletin*, an agenda of regulations under development or consideration. The agenda shall describe the regulations being considered, the proposed date for promulgation, the need and legal basis for the action being taken, and the status of regulations previously listed on the agenda. Each item on the agenda shall also include a contact person within the agency from whom additional information may be obtained.

9. **Exemptions.** The procedure prescribed by this Order shall not apply to:

a. Emergency regulations as defined in the Regulatory Review Act.

b. Any regulation for which consideration or reconsideration under the terms of this order would conflict with deadlines imposed by statute, consent decree or by judicial order, provided that any such regulation shall be reported to the Director of the Governor's Policy Office together with a brief explanation of the conflict. The agency shall publish in the *Pennsylvania Bulletin* a statement of the reasons why it is impracticable for the agency to follow the procedures of this order with respect to such a rule. The agency, in consultation with the Governor's Policy Office, shall adhere to the requirements of this order to the extent permitted by statutory or judicial deadlines.

10. **Applicability.**

a. This order shall apply to all agencies under the jurisdiction of the Governor's Office.

b. This order is intended only to improve the internal management of executive agencies and is not intended to create any right or benefit, substantive or procedural, enforceable at law by a party against the Commonwealth, its agencies, its officers or any person.

11. **Effective Date.** This order is effective immediately

12. **Rescission.** Executive Order 1982-2 is rescinded.

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

AIR POLLUTION CONTROL

Filed with the Secretary of State on
These rules take effect 15 days after filing with the Secretary of State

(By authority conferred on the director of the department of environmental quality by sections 5503 and 5512 of Act No. 451 of the Public Acts of 1994, as amended, and Executive Reorganization Order No. 1995-16, being §§324.5503, 324.5512, and 324.99903 of the Michigan Compiled Laws)

R 336.1801 is added to the Michigan Administrative Code to read as follows:

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PART 8. EMISSION LIMITATIONS AND PROHIBITIONS--OXIDES OF NITROGEN

R 336.1801 EMISSION OF OXIDES OF NITROGEN FROM STATIONARY SOURCES.

RULE 801.

(1) ANY OWNER OR OPERATOR OF A FOSSIL-FUEL FIRED ELECTRICITY
GENERATING UTILITY UNIT WITH A POTENTIAL TO EMIT OXIDES OF
NITROGEN OF MORE THAN 25 TONS PER OZONE SEASON AND SERVING A
GENERATOR WITH A NAMEPLATE CAPACITY OF 25 MEGAWATT OR GREATER
SHALL COMPLY WITH THE EMISSION LIMITS, DURING THE OZONE SEASON, AS
SPECIFIED IN THE FOLLOWING SUBDIVISIONS:

(a) BY APRIL 1, 2002, MEET THE LEAST STRINGENT OF A UTILITY SYSTEM-
WIDE AVERAGE OXIDES OF NITROGEN EMISSION RATE OF 0.35 POUNDS PER
MILLION BRITISH THERMAL UNITS HEAT INPUT, OR AN EMISSION RATE
BASED ON 55 PERCENT REDUCTION OF OXIDES OF NITROGEN FROM 1990
LEVELS.

18 (b) BY APRIL 1, 2004, MEET THE LEAST STRINGENT OF A UTILITY SYSTEM-
19 WIDE AVERAGE OXIDES OF NITROGEN EMISSION RATE OF 0.25 POUNDS PER
20 MILLION BRITISH THERMAL UNITS HEAT INPUT, OR AN EMISSION RATE
21 BASED ON 65 PERCENT REDUCTION OF OXIDES OF NITROGEN FROM 1990
22 LEVELS.

23 (c) THE DATES LISTED IN SUBDIVISIONS (a) AND (b) OF THIS SUBRULE MAY
24 BE EXTENDED BY UP TO 1 YEAR IF AN OWNER OR OPERATOR MAKES AN
25 ACCEPTABLE DEMONSTRATION TO THE DEPARTMENT THAT THE
26 ADDITIONAL TIME IS NECESSARY TO AVOID DISRUPTION OF THE ENERGY
27 SUPPLY IN THE STATE.

28 (2) COMPLIANCE WITH THE EMISSION LIMITS IN SUBRULE (1) OF THIS RULE
29 SHALL BE DETERMINED BY EITHER OF THE FOLLOWING, AS APPROPRIATE:

30 (a) TO DEMONSTRATE COMPLIANCE WITH A UTILITY SYSTEM-WIDE
31 AVERAGE EMISSION RATE, THE SUM OF THE MASS EMISSIONS FROM ALL
32 UNITS OWNED OR OPERATED BY THE UTILITY SUBJECT TO SUBRULE (1) OF
33 THIS RULE, THAT OCCURRED DURING THE OZONE SEASON, DIVIDED BY THE
34 SUM OF THE HEAT INPUT FROM ALL UNITS OWNED OR OPERATED BY THE
35 UTILITY SUBJECT TO SUBRULE (1) OF THIS RULE, THAT OCCURRED DURING
36 THE OZONE SEASON, SHALL BE LESS THAN OR EQUAL TO THE LIMITS IN
37 SUBRULE (1).

38 (b) TO DEMONSTRATE COMPLIANCE WITH THE PERCENT REDUCTION
39 REQUIREMENTS OF SUBRULE (1) OF THIS RULE, THE OWNER OR OPERATOR
40 SHALL PROVIDE CALCULATIONS SHOWING THAT THE UTILITY SYSTEM

41 AVERAGE EMISSION RATE DURING EACH COMPLIANCE OZONE SEASON HAS
42 BEEN REDUCED BELOW THE 1990 OZONE SEASON AVERAGE EMISSION RATE
43 BY THE APPLICABLE PERCENT REDUCTION LISTED IN SUBRULE (1) OF THIS
44 RULE. THE 1990 OZONE SEASON AVERAGE EMISSION RATE IS THE SUM OF
45 THE MASS EMISSIONS FROM ALL UNITS OWNED OR OPERATED BY THE
46 UTILITY SUBJECT TO SUBRULE (1) OF THIS RULE THAT OCCURRED DURING
47 THE 1990 OZONE SEASON, DIVIDED BY THE SUM OF THE HEAT INPUT FROM
48 ALL UNITS OWNED OR OPERATED BY THE UTILITY SUBJECT TO SUBRULE (1)
49 OF THIS RULE THAT OCCURRED DURING THE 1990 OZONE SEASON.

50 (3) BY APRIL 1, 2003, THE OWNER OR OPERATOR OF A FOSSIL-FUEL FIRED
51 EMISSION UNIT WITH A POTENTIAL TO EMIT OF MORE THAN 25 TONS OF
52 OXIDES OF NITROGEN PER OZONE SEASON, EXCEPT EMISSION UNITS SUBJECT
53 TO SUBRULE (1) OF THIS RULE, THAT HAS A MAXIMUM RATED HEAT INPUT
54 CAPACITY GREATER THAN 250 MILLION BRITISH THERMAL UNITS PER HOUR
55 SHALL COMPLY WITH THE FOLLOWING APPLICABLE PROVISIONS, AVERGED
56 OVER THE OZONE SEASON:

57 (a) ANY OWNER OR OPERATOR OF A FOSSIL FUEL-FIRED BOILER OR
58 PROCESS HEATER SHALL MEET THE EMISSION LIMITS CONTAINED IN
59 TABLE 81 OF THIS RULE.

60 (b) ANY OWNER OR OPERATOR OF A GAS-FIRED BOILER OR PROCESS
61 HEATER THAT FIRES GASEOUS FUEL WHICH CONTAINS MORE THAN 50
62 PERCENT HYDROGEN BY VOLUME SHALL COMPLY WITH A OXIDES OF
63 NITROGEN EMISSION LIMIT OF 0.25 POUNDS PER MILLION BTU HEAT INPUT.

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
RENUMBERING, AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to renumber NR 484.04(28), to amend NR 428.01(1), 428.02 (intro.), 484.04(13), and to create NR 428.01(2) Note, NR 428.02(1) to (71), NR 428 subchapters I to IX and 484.04(28) to (32) in response to U.S. EPA's nitrogen oxides (NO_x) emission reduction requirements under its NO_x SIP Call to Reduce Ozone Transport.

AM-15-99

Analysis Prepared by the Department of Natural Resources

Authorizing statutes: ss. 227.11(2)(a) and 285.11(1), Stats.

Statutes interpreted: s. 285.11(6), Stats. The State Implementation Plan developed under that provision is revised.

U.S. EPA required states to adopt new regulations in response to its NO_x SIP Call to Reduce Ozone Transport. The SIP call established a nitrogen oxides (NO_x) emissions budget for Wisconsin (and 21 other states) and gave the state some discretion as to how the reductions in NO_x emissions would be achieved. EPA established the emissions budget by assuming the application of "highly cost-effective" controls on large NO_x emission sources. The department identified the sources required to reduce their NO_x emissions and worked extensively with stakeholders (e.g., electric utilities, Wisconsin Paper Council, Wisconsin Manufacturers and Commerce, environmental groups, other state agencies) to develop control programs for these source categories.

The proposed revisions to the state nitrogen oxides emission control program incorporate the provisions of EPA's model NO_x emissions trading rule (40 CFR part 96) as well as additional provisions of 40 CFR Parts 72 and 75 into the Wisconsin Administrative Code. Except for the conversion of the federal text into state numbering and writing style (including terminology), federal formatting is followed pursuant to s. 227.14(1m), Stats., and the proposed provisions of the state nitrogen oxides emission reduction program are identical to the corresponding federal rule language. In this way the state version of the nitrogen oxides emission reduction program is neither more stringent nor less stringent than the federal nitrogen oxides emission reduction program.

The most significant feature of the proposed rule is the effect of subchapter V, NO_x Allowance Allocations. Affected sources are allocated a fixed number of tons of allowable nitrogen oxides emissions (NO_x) for each ozone season (May 1 through September 30), which effectively determines the required level of NO_x emission reduction for each ozone season.



Pennsylvania Coal Association

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GEORGE ELLIS
President

Original: 2009
Bush
cc: Smith
Tyrrell
Sandusky
Legal

James M. Smith
Regulatory Analyst
IRRC
14th Floor, Harristown 2
333 Market St.
Harrisburg, PA 17101

Re: Proposed Interstate Ozone Transport Reduction Regulations
25 Pa. Code, Chapters 123 and 145

Dear Jim:

Enclosed per our conversation, is a copy of the following:

- PCA's comments to the EQB regarding the aforementioned rulemaking;
- Two recent court decisions which, at the very least, extend the deadline for a state's submittal of its SIP to EPA. Further, depending on how these cases evolve, the court's decisions could also delay plan implementation deadlines and radically alter the substance of the requirements;
- HR182, now pending before the Pennsylvania Senate and a jointly signed letter by PCA and UMWA that was distributed to House members of the Pennsylvania Legislative Coal Caucus conveying support for the resolution.

Since PCA's comments to the EQB are self-explanatory, I will not go into further details. Essentially, the comments do not challenge the stringency of the regulations or even the timetable and implementation dates, provided that Pennsylvania moves in "lockstep" with adjoining states.

To do otherwise would be senseless since unilateral action by Pennsylvania would only hurts its coal-based economy (58% of Pennsylvania's total electric output is generated by coal) while doing little to address the environmental concerns associated with interstate ozone transport within its borders. Our comments explain this argument in more detail.

A number of developments have occurred since PCA submitted its comments that is the focus of this letter.

The first relates to the two court rulings recently issued by the U.S. Court of Appeals for the District of Columbia.

These decisions underscore the need for the "lockstep" requirements suggested in PCA's comments to ensure that Pennsylvania reduces ozone precursor emissions in the same amounts and on the same timetable, as required by EPA in other states.

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COMMUNICATIONS
SECTION

The first ruling, struck down EPA's proposed rules to control ground level ozone and particulate matter (PM) emissions. This decision, which raised constitutional questions about EPA's clean air authority could have far-reaching effects, delaying a host of regulations not specifically addressed by the litigation, including the SIP Call regulations.

The court remanded EPA's rule to regulate PM, saying the agency is "precluded from enforcing" its rule to regulate ozone under the new eight-hour standard. It is this same eight-hour standard rendered unenforceable by the court upon which EPA's SIP Call relies on for measuring pollutants.

Indeed, following this decision the U.S. Court of Appeals hearing the upwind states' challenge to the SIP Call, granted the states' petition and indefinitely stayed the SIP Call filing deadline. As a result, the SIP Call could be delayed at least another year or two as these cases move through the courts.

These uncertainties dictate that Pennsylvania DEP's regulations implementing the SIP Call should be structured to avoid the risk of unilateral emission reductions in Pennsylvania that are not matched by other states. The language that PCA recommended in its comments would provide the Commonwealth with appropriate flexibility to adapt to changing legal requirements imposed by EPA and the federal courts. DEP should be questioned on how it intends to tailor its regulations to respond to potential regulatory changes necessitated by future court orders.

The other development relates to the introduction of HR182 in the Pennsylvania General Assembly. The enclosed letter to members of the House Coal Caucus explains the gist of the resolution. In short, the resolution tracks the substance of PCA's comments and calls upon DEP to include language in its regulatory package that would insure that Pennsylvania electric utilities are subject to the same level and timing of emission reductions as required by EPA in adjoining states.

On Tuesday, June 8, the Pennsylvania House by a 200-0 vote approved HR182. As a concurrent resolution, it must also be approved by the Pennsylvania Senate. Given the reaction from the Senate members contacted thus far and in view of the unanimous vote rendered by the House, I remain cautiously optimistic that the Senate will concur in the House resolution prior to the summer adjournment. If this is the case, DEP should be queried on how it plans to address the sense of the legislature in its regulations.

I hope this information is useful to you in reviewing the Department's rulemaking. I will be happy to meet with you at your convenience to discuss these issues in more detail.

Sincerely,



George Ellis
President, Pennsylvania Coal Association

cc: Charles A. Tyrrell, Jr.



Pennsylvania Coal Association

212 North Third Street • Suite 102 • Harrisburg, PA 17101

GEORGE ELLIS
President

Original: 2009

^^^
^^^
^^^
Bush

cc:

Smith

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(800) COAL NOW (PA Only)

Sandusky

Legal

May 10, 1999

Environmental Quality Board
Rachel Carson State Office Building
15th Floor
P.O. Box 8477
Harrisburg, PA 17105-8477

Re: Proposed Interstate Ozone Transport Reduction Regulations
25 Pa. Code, Chapters 123 and 145

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99 JUN -9 PM 3:04
Environmental Quality Board

Ladies and Gentlemen:

The Pennsylvania Coal Association (PCA), pursuant to notice published in the Pennsylvania Bulletin on March 6, 1999, submits the following comments on the above referenced proposed rulemaking.

PCA is a trade association organized and operating under the laws of Pennsylvania representing producers of bituminous coal in the Commonwealth in regulatory matters affecting the coal industry. PCA's members produce over 75% of the bituminous coal annually mined in Pennsylvania, which according to DEP data exceeded 73 million tons in 1997. Pennsylvania coal operators directly employ 8,000 people who are among the highest paid industrial workers in Pennsylvania with average annual earnings of \$45,533. In addition to direct employment, a Penn State University study concluded that up to 10 indirect mining jobs are supported by each direct mining job within the state economy. Many of these indirect employees work for PCA's 80 associate members, who provide services to the coal industry ranging from engineering and consulting to finance, insurance and the sale of mining equipment.

The proposed regulations are designed to meet the requirements of EPA's NOx State Implementation Plan (SIP) Call. Among other things, the proposal would establish a program to limit the emission of nitrogen oxides (NOx) from fossil-fired combustion units with rated heat input capacity of 250 MMBtus per hour or more and electric generating facilities of 15 megawatts or greater. This program, to begin in 2003, would replace the existing NOx allowance requirements contained at 25 Pa. Code Chapter 123.110 et seq.

Electric generating units, primarily coal-fired power plants, would be among the sources primarily impacted by this regulation. Since the Pennsylvania steam coal market is by far the largest market for Pennsylvania coal operators - 43% of Pennsylvania's 1997 bituminous coal production went to power plants located in Pennsylvania and coal was used to generate 58% of Pennsylvania's total electric output - PCA and its member companies have a substantial interest in the outcome of this proposal.

PCA's major concern with the rulemaking is its potential impact on the competitiveness of Pennsylvania-mined coal and its continued viability as a source of electricity in the Pennsylvania steam coal market. Pennsylvania's recent restructuring of its electric utility industry has resulted in a competitive market for the generation of electricity, placing a premium on maintaining lower fuel and operating costs. In the interest of fairness, it is vital that the standards and deadlines for any regional air quality regulatory program be equitable among the states to ensure the existence of a level-playing field on which the various fuel options can compete equally in this deregulated market.

It is this point - whether Pennsylvania should pursue unilateral reductions in NOx emissions or proceed in "lockstep" with adjoining states - that is the focus of our comments.

PCA commends this Administration for its continuing commitment to do its fair share in reducing ozone transport both within Pennsylvania and throughout the eastern United States. Under the Memorandum of Understanding that Pennsylvania signed with ten other state members of the northeast Ozone Transport Commission (OTC), Pennsylvania utilities have reduced NOx emissions by 45% in 1995 and will achieve further reductions of 55-65% this year.

In addition, the Pennsylvania DEP played a key role in directing the 37-state Ozone Transport Assessment Group (OTAG) process, which evaluated the nature and sources of urban smog throughout the eastern United States. Based on OTAG's recommendations, EPA promulgated the SIP Call rule as a strategy to reduce transported ozone in the OTAG region.

Although the SIP Call rule contains emission control requirements similar to those called for by Phase III of the OTC MOU, which is the basis of this regulatory package, it applies to a broader 22-state region, including Pennsylvania.

While Pennsylvania has been a regional and national leader in this effort, other states both within and outside the OTC have not been as diligent. Legal challenges to the MOU have been filed in Delaware and Maryland, and Virginia has chosen not to sign the agreement,

Several upwind states and industry groups have challenged EPA's SIP Call before the U.S. Court of Appeals for the District of Columbia Circuit, creating uncertainty about the timely implementation of the proposed emission reductions. A decision on the merits is expected early next year.

Several states have proposed alternatives to EPA's rule, calling for smaller emission reductions over different timetables.

Due to these circumstances, we now face the prospect of delays resulting from legal challenges to the rule and uncertainty about its eventual implementation.

If these state and industry parties are successful in their challenges to the SIP Call, severe harm could result to the Pennsylvania coal and electric utility industries if the Commonwealth unilaterally implements these regulations. Thousands of mining and utility jobs would be at risk in the newly-deregulated electric market, and Pennsylvania utilities would face an even steeper competitive disadvantage relative to utilities in other states to the west and south.

A multi-industry study (H. Zinder Associates and J.E. Cichanowicz, Inc., "Evaluation of Alternative NO_x Emission Caps in the 22-State SIP Region" June 18, 1998) commissioned for EPA's rulemaking estimated that Pennsylvania utilities would be required to invest \$1.2 billion in control equipment to comply with the 0.15 lb. emission limit, raising capital and operating costs by \$241 million annually relative to Clean Air Act requirements. Because of our reliance on coal-fired generation, Pennsylvania ranks third highest among the 22 states in capital costs to comply with the SIP Call. Most of these costs would be incurred for retrofitting coal-fired generating capacity with Selective Catalytic Reduction (SCR) technology. Given the premium that our deregulated electric market places on holding down the cost/kwh, unilateral action would be a prescription for the premature retirement of coal-fired power plants in Pennsylvania.

Moreover, emission reductions by Pennsylvania sources alone will not be sufficient to meet National Ambient Air Quality Standards (NAAQS). This was demonstrated by OTAG's air quality modeling which found that generating units in 22 of the 37 states significantly contributed to ozone nonattainment and will prevent attainment and maintenance of the ozone NAAQS. It was reinforced when EPA approved six of the eight state Section 126 petitions, including Pennsylvania's, finding that sources in 19 states and the District of Columbia significantly contribute to nonattainment, or interfere with the ability of states to maintain clean air, in one or more of the petitioning states.

Given these factors, PCA firmly believes that Pennsylvania should move in concert with adjoining states in implementing the SIP Call. The Commonwealth has little to gain but much to lose by acting alone.

PCA, therefore, recommends that this rulemaking not be implemented unless and until generating units in surrounding states are subject to the same level and timing of emission reductions as required by EPA.

Accordingly, PCA recommends that this rulemaking be revised to include language that would ensure that Pennsylvania electric utilities reduce emissions on the same timetable

and in similar amounts as required by EPA of other utilities in adjoining states.

We suggest the following language be incorporated in this regulation as a new subsection 145.1(a) and inserted after subsection 145.1. Purpose:

Section 145.1(a) Effective Date

The provisions of this subchapter shall not apply to any fossil-fired combustion unit in Pennsylvania if such unit would be subject to emission control requirements more stringent than, or on a compliance schedule sooner than, those required by Phase II of the OTC MOU, until and unless similar units in each state adjacent to Pennsylvania are subject to a comparable schedule of equivalent emission control requirements established in approved State Implementation Plans adopted in conformance with: a) U.S. EPA's Regional Ozone Transport Rulemaking; b) final Federal Implementation Plans promulgated in accordance with U.S. EPA's proposed Ozone Transport Federal Implementation Plan, or c) a final rulemaking granting the relief requested in the petition filed by Pennsylvania on August 14, 1997, pursuant to Section 126 of the Clean Air Act.

Inclusion of such language is necessary to clearly state that Pennsylvania will proceed in lockstep with adjacent states in implementing the SIP Call and not pursue unilateral reductions.

It would not weaken Pennsylvania's ability to have an enforceable regulation for the following reasons:

1. It is lawful, reasonable, and appropriate for DEP's NOx SIP revision to mirror the Consent Decree Pennsylvania negotiated with EPA concerning Pennsylvania's section 126 petition. The Consent Decree was filed in August, 1998 in State of Connecticut et al. v. Browner, 98 Civ.1376 (LAK), in the U.S. District Court for the Southern District of New York. In that Consent Decree EPA gave assurances that NOx emission reductions necessary to eliminate significant contributions to NAAQS nonattainment in Pennsylvania from emissions originating outside Pennsylvania would be implemented by May, 2003. See paragraphs 6 and 7 of the Consent Decree. It is essential to Pennsylvania's environmental and economic interests for regional NOx emission reductions to be made on a lockstep regional basis and not unilaterally by Pennsylvania.
2. The 1990 Amendments to the Clean Air Act give EPA the option of approving only part of a SIP revision submittal, rather than all or nothing. See section 110(k)(3). If EPA were to find a lockstep provision in DEP's NOx SIP unapprovable, EPA has the option to approve the remainder of the NOx SIP and require DEP to remove the lockstep provision (see section 110(k)(4)) or to promulgate a FIP deadline that supersedes the lockstep provision (see section 110(c)(1)(B)). However, any such EPA rejection of the lockstep provision would be arbitrary and capricious, because it

would fly in the face of EPA's own findings that lockstep regional NO_x emission reductions are needed for NAAQS attainment in Pennsylvania, and would also be a breach of EPA's August, 1998 Consent Decree with Pennsylvania filed in the federal District Court in New York.

3. There is recent precedent for EPA's approval of SIP compliance obligations and effective dates that are dependent upon appropriate action by EPA. See Ohio SO₂ SIP revision for Sammis and Toronto plants, OAC 3745-18-47(M)(1) and (2), approved at 61 FR 52882 (October 9, 1996).
4. There is precedent for EPA approval of a State's Title V permit program that does not go into effect unless and until full approval by EPA. See Ohio Revised Code sections 3704.036(C) and 3704.05(K), fully approved at 60 FR 42045 (August 15, 1995).

As the evidence suggests, there is no merit for Pennsylvania to take this next step unless and until states to the west and south of it also proceed with a program that results in comparable emission reductions under similar timetables.

Unless Pennsylvania marches in lockstep with its neighboring states in pursuit of regional ozone attainment, it will seriously undermine the competitiveness of Pennsylvania-mined coal in the deregulated electric generating market. Competition assumes the existence of a level playing field. PCA urges you not to tilt the playing field against coal usage.

Thank you for your consideration of these comments.

Sincerely,



George Ellis, President
Pennsylvania Coal Association

United States Court of Appeals Original: 2009
FOR THE DISTRICT OF COLUMBIA CIRCUIT cc: Bush
Smith
Tyrrell
Sandusky
Legal

Argued December 17, 1998 Decided May 14, 1999

No. 97-1440

American Trucking Associations, Inc., et al.,
Petitioners

v.

United States Environmental Protection Agency,
Respondent

Commonwealth of Massachusetts, et al.,
Intervenors

Consolidated with

Nos. 97-1546, 97-1548, 97-1551, 97-1552, 97-1553,
97-1555, 97-1559, 97-1561, 97-1562, 97-1565, 97-1567,
97-1571, 97-1573, 97-1574, 97-1576, 97-1578, 97-1579,
97-1582, 97-1585, 97-1586, 97-1587, 97-1588, 97-1592,
97-1594, 97-1596, 97-1597, 97-1598

No. 97-1441

American Trucking Associations, Inc., et al.,
Petitioners

v.

United States Environmental Protection Agency,
Respondent

Commonwealth of Massachusetts, et al.,
Intervenors

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U.S. DEPARTMENT OF JUSTICE

Consolidated with

Nos. 97-1502, 97-1505, 97-1508, 97-1509, 97-1510,
97-1512, 97-1513, 97-1514, 97-1518, 97-1519, 97-1526,
97-1531, 97-1539, 97-1566, 97-1568, 97-1570, 97-1572,
97-1575, 97-1584, 97-1589, 97-1591, 97-1595, 97-1619

On Petitions for Review of an Order of the
Environmental Protection Agency

F. William Brownell argued the cause for the Non-State Clean Air Act Petitioners/Intervenors in 97-1441. With him on the briefs were Henry V. Nickel, Edward W. Warren, Gary E. Marchant, Robert R. Gasaway, Daniel R. Barney, Lynda S. Mounts, Stephen A. Bokas, Robin S. Conrad, Dimitri G. (Jim) Daskal, Peter S. Glaser, G. William Frick, M. Elizabeth Cox, Jan Amundson, David E. Menotti, William F. Pedersen, Julie C. Becker, Harold P. Quinn, Jr., David M. Flannery, L. Poe Leggette, Russell S. Frye, Kathy D. Bailey, Roy S. Belden, Cynthia H. Evans, Maurice H. McBride, David F. Zoll, Alexandra Dapolito Dunn, Jeffrey

L. Leiter, Chet M. Thompson, Douglas I. Greenhaus, Grant Crandall, Eugene M. Trisko, David M. Friedland, Gary H. Baise, Steven F. Hirsch, Erika Z. Jones, Timothy S. Bishop, Timothy L. Harker, Thomas J. Graves and James M. Rinaca.

Edward W. Warren argued the cause for Small Business Petitioners and Intervenor in 97-1440 and 97-1441. With him on the briefs were Daniel R. Barney, Lynda S. Mounts, Gary E. Marchant, Robert R. Gasaway, Stephen A. Bokas, Robin S. Conrad, Dimitri G. (Jim) Daskal, Jan S. Amundson, Henry V. Nickel, F. William Brownell, Ross S. Antonson, Jeffrey L. Leiter, Chet M. Thompson, Douglas I. Greenhaus, David M. Friedland, Gary H. Baise, Steven F. Hirsch, Erika Z. Jones, Timothy S. Bishop, Barry M. Hartman and Leif King.

Susan E. Ashbrook and Andrew S. Bergman, Assistant Attorneys General, State of Ohio, Thomas L. Casey, Solicitor General, John C. Scherbarth and Todd B. Adams, Assistant Attorneys General, State of Michigan, and Mark J. Rudolph, Deputy Chief, State of West Virginia Division of Environmental Protection, were on the briefs for the State Petitioners in 97-1440 and 97-1441.

David J. Kaplan, Attorney, U.S. Department of Justice, and Robert G. Dreher, Counsel, U.S. Environmental Protection Agency, argued the cause for respondent in 97-1441. With David J. Kaplan on the brief were Lois J. Schiffer, Assistant Attorney General, Alice L. Mattice and Naikang Tsao, Attorneys, U.S. Department of Justice, Amey W. Marrella, Michael L. Goo and Gerald K. Gleason, Counsel, U.S. Environmental Protection Agency.

Howard I. Fox argued the cause in 97-1441 and filed the briefs in 97-1440 and 97-1441 for intervenor American Lung Association.

Edward G. Bohlen, Assistant Attorney General, State of Massachusetts, Catherine A. Tormey, Deputy Attorney General, State of New Jersey, Kimberly P. Massicotte, Assistant

Attorney General, State of Connecticut, John H. Hasen, Assistant Attorney General, State of Vermont, Jared Snyder and Andrew J. Gershon, Assistant Attorneys General, State of New York, and Maureen D. Smith, Assistant Attorney General, State of New Hampshire, were on the brief for intervenor Massachusetts and New Jersey, and amici curiae New York, et al. in 97-1441. John M. Looney, Jr., Assistant Attorney General, State of Connecticut, entered an appearance.

C. Boyden Gray and Alan Charles Raul were on the brief for Amicus Curiae Congressman Tom Bliley in 97-1441.

David E. Menotti and William F. Pedersen argued the cause for Non-State Petitioners on Fine Particulate Matter National Ambient Air Quality Standards in 97-1440. With them on the briefs were David H. Kim, Jeffrey A. Knight, Daniel R. Barney, Lynda S. Mounts, Steven A. Bokas, Robin S. Conrad, Julie Becker, David M. Flannery, L. Poe Leggette, Edward W. Warren, Gary E. Marchant, Robert R. Gasaway, Dimitri G. Daskal, Harold P. Quinn, Jr., Russell B. Frye, Kathy D. Bailey, Cynthia H. Evans, Jan S. Amundson, Douglas I. Greenhaus, G. William Frick, M. Elizabeth Cox, Victoria A. Cochran, Henry V. Nickel, F. William Brownell, Ross S. Antonson, David M. Friedland, Jeffrey L. Leiter, Chet M. Thompson, Gary H. Baise, Steven F. Hirsch, Erika Z. Jones, Peter S. Glaser, Kurt E. Blase, Timothy S. Bishop, Maurice H. McBride, David F. Zoll, Kathryn Smith, Christina Franz, Michael A. McCord and James M. Rinaca.

Robert E. Yuhnke argued the cause for Environmental Group and Citizen Petitioners in 97-1440. With him on the briefs was David S. Baron.

Steven J. Burr argued the cause for the Industry Petitioners on Coarse Particulate Matter National Ambient Air Quality Standards in 97-1440. With him on the briefs were Harold P. Quinn, Jr., Erika Z. Jones, Timothy S. Bishop and Vicki Arroyo Cochran.

Mary F. Edgar, Attorney, U.S. Department of Justice, and Robert G. Dreher, Counsel, U.S. Environmental Protection Agency, argued the cause for respondent in 97-1440. With Mary F. Edgar on the brief were Lois J. Schiffer, Assistant Attorney General, Norman L. Rave, Jr., Naikang Tsao and Cecilia E. Kim, Attorneys, U.S. Department of Justice, Gerald K. Gleason and Michael L. Goo, Counsel, U.S. Environmental Protection Agency. Karen L. Egbert, Attorney, U.S. Department of Justice, and Amey W. Marrella, Counsel, U.S. Environmental Protection Agency, entered appearances.

Edward G. Bohlen, Assistant Attorney General, State of Massachusetts, Catherine A. Tormey, Deputy Attorney General, State of New Jersey, John M. Looney, Jr., Assistant Attorney General, State of Connecticut, William H. Sorrell,

Attorney General, and Ronald A. Shems, Assistant Attorney General, State of Vermont, Jared Snyder, Assistant Attorney General, State of New York, and Maureen D. Smith, Assistant Attorney General, State of New Hampshire, were on the brief for intervenors Massachusetts and New Jersey, and amici curiae New York, et al. in 97-1440. Andrew J. Gershon, Assistant Attorney General, State of New York, entered an appearance.

C. Boyden Gray and Alan Charles Raul were on the brief for amicus curiae Senator Orrin Hatch in 97-1440.

Before: Williams, Ginsburg and Tatel, Circuit Judges.

Opinion for the Court filed PER CURIAM.1

Separate opinion dissenting from Part I filed by Circuit Judge Tatel.

PER CURIAM:

Introduction

Good explanation

The Clean Air Act requires EPA to promulgate and periodically revise national ambient air quality standards

Judge Williams wrote Parts I and III.B; Judge Ginsburg wrote Parts II, III.A, and IV.D; Judge Tatel wrote Parts IV.A-C.

("NAAQS") for each air pollutant identified by the agency as meeting certain statutory criteria. See Clean Air Act ss 108-09, 42 U.S.C. ss 7408-09. For each pollutant, EPA sets a "primary standard"--a concentration level "requisite to protect the public health" with an "adequate margin of safety"--and a "secondary standard"--a level "requisite to protect the public welfare." Id. s 7409(b).

In July 1997 EPA issued final rules revising the primary and secondary NAAQS for particulate matter ("PM") and ozone. See National Ambient Air Quality Standards for Particulate Matter, 62 Fed. Reg. 38,652 (1997) ("PM Final Rule"); National Ambient Air Quality Standards for Ozone, 62 Fed. Reg. 38,856 (1997) ("Ozone Final Rule"). Numerous petitions for review have been filed for each rule.

In Part I we find that the construction of the Clean Air Act on which EPA relied in promulgating the NAAQS at issue here effects an unconstitutional delegation of legislative power. See U.S. Const. art. I, s 1 ("All legislative powers herein granted shall be vested in a Congress of the United States."). We remand the cases for EPA to develop a construction of the act that satisfies this constitutional requirement. *decision - Part I*

In Part II we reject the following claims: that s 109(d) of the Act allows EPA to consider costs; that EPA should have considered the environmental damage likely to result from the NAAQS' financial impact on the Abandoned Mine Reclamation Fund; that the NAAQS revisions violated the National Environmental Policy Act ("NEPA"), Unfunded Mandates Reform Act ("UMRA"), and Regulatory Flexibility Act ("RFA"). *decision Part II*

In Part III we decide two ozone-specific statutory issues, *dec - Part III*

holding that the 1990 revisions to the Clean Air Act limit EPA's ability to enforce new ozone NAAQS and that EPA cannot ignore the possible health benefits of ozone.

Finally, in Part IV we resolve various challenges to the PM NAAQS. We agree with petitioners that EPA's choice of PM10 as the indicator for coarse particulate matter was arbitrary and capricious; we reject petitioners' claims that EPA must treat PM2.5 as a "new pollutant," that EPA must identify a biological mechanism explaining PM's harmful effects, and that the Clean Air Act requires secondary NAAQS to be set at levels that eliminate all adverse visibility effects.

Decision Part 10

The remaining issues cannot be resolved until such time as EPA may develop a constitutional construction of the act (and, if appropriate, modify the disputed NAAQS in accordance with that construction).

Remaining Issues

I. Delegation

Certain "Small Business Petitioners" argue in each case that EPA has construed ss 108 & 109 of the Clean Air Act so loosely as to render them unconstitutional delegations of legislative power. We agree. Although the factors EPA uses in determining the degree of public health concern associated with different levels of ozone and PM are reasonable, EPA appears to have articulated no "intelligible principle" to channel its application of these factors; nor is one apparent from the statute. The nondelegation doctrine requires such a principle. See *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394, 409 (1928). Here it is as though Congress commanded EPA to select "big guys," and EPA announced that it would evaluate candidates based on height and weight, but revealed no cut-off point. The announcement, though sensible in what it does say, is fatally incomplete. The reasonable person responds, "How tall? How heavy?"

EPA regards ozone definitely, and PM likely, as non-threshold pollutants, i.e., ones that have some possibility of some adverse health impact (however slight) at any exposure level above zero. See *Ozone Final Rule*, 62 Fed. Reg. at 38,863/3 ("Nor does it seem possible, in the Administrator's

judgment, to identify [an ozone concentration] level at which it can be concluded with confidence that no 'adverse' effects are likely to occur."); *National Ambient Air Quality Standards for Ozone and Particulate Matter*, 61 Fed. Reg. 65,637, 65,651/3 (1996) (proposed rule) ("[T]he single most important factor influencing the uncertainty associated with the risk estimates is whether or not a threshold concentration exists below which PM-associated health risks are not likely to occur."). For convenience, we refer to both as non-threshold pollutants; the indeterminacy of PM's status does not affect EPA's analysis, or ours.

Thus the only concentration for ozone and PM that is utterly risk-free, in the sense of direct health impacts, is zero. Section 109(b)(1) says that EPA must set each standard at

the level "requisite to protect the public health" with an "adequate margin of safety." 42 U.S.C. s 7409(b)(1). These are also the criteria by which EPA must determine whether a revision to existing NAAQS is appropriate. See 42 U.S.C. s 7409(d)(1) (EPA shall "promulgate such new standards as may be appropriate in accordance with ... [s 7409(b)]"); see also infra Part II.A. For EPA to pick any non-zero level it must explain the degree of imperfection permitted. The factors that EPA has elected to examine for this purpose in themselves pose no inherent nondelegation problem. But what EPA lacks is any determinate criterion for drawing lines. It has failed to state intelligibly how much is too much.

We begin with the criteria EPA has announced for assessing health effects in setting the NAAQS for non-threshold pollutants.¹ They are "the nature and severity of the health

¹Technically, EPA describes the criteria as used only for setting the "adequate margin of safety." There might be thought to be a separate step in which EPA determines what standard would protect public health without any margin of safety, and that step might be governed by different criteria. But EPA did not use such a process, and it need not. See NRDC v. EPA, 902 F.2d 963,

effects involved, the size of the sensitive population(s) at risk, the types of health information available, and the kind and degree of uncertainties that must be addressed." Ozone Final Rule, 62 Fed. Reg. at 38,883/2; EPA, "Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information: OAQPS Staff Paper," at II-2 (July 1996) ("PM Staff Paper") (listing same factors). Although these criteria, so stated, are a bit vague, they do focus the inquiry on pollution's effects on public health. And most of the vagueness in the abstract formulation melts away as EPA applies the criteria: EPA basically considers severity of effect, certainty of effect, and size of population affected. These criteria, long ago approved by the judiciary, see *Lead Industries Ass'n v. EPA*, 647 F.2d 1130, 1161 (D.C. Cir. 1980) ("*Lead Industries*"), do not themselves speak to the issue of degree.

Read in light of these factors, EPA's explanations for its decisions amount to assertions that a less stringent standard would allow the relevant pollutant to inflict a greater quantum of harm on public health, and that a more stringent standard would result in less harm. Such arguments only support the intuitive proposition that more pollution will not benefit public health, not that keeping pollution at or below any particular level is "requisite" or not requisite to "protect the public health" with an "adequate margin of safety," the formula set out by s 109(b)(1).

Consider EPA's defense of the 0.08 ppm level of the ozone NAAQS. EPA explains that its choice is superior to retaining the existing level, 0.09 ppm, because more people are exposed to more serious effects at 0.09 than at 0.08. See Ozone Final Rule, 62 Fed. Reg. at 38,868/1. In defending the decision not to go down to 0.07, EPA never contradicts the intuitive proposition, confirmed by data in its Staff Paper,

that reducing the standard to that level would bring about comparable changes. See EPA, "Review of National Ambient Air Quality Standards for Ozone: Assessment of Scientific

973 (D.C. Cir. 1990). Thus, the criteria mentioned in the text govern the whole standard-setting process.

and Technical Information: OAQPS Staff Paper," at 156 (June 1996) ("Ozone Staff Paper"). Instead, it gives three other reasons. The principal substantive one is based on the criteria just discussed:

The most certain O₃-related effects, while judged to be adverse, are transient and reversible (particularly at O₃ exposures below 0.08 ppm), and the more serious effects with greater immediate and potential long-term impacts on health are less certain, both as to the percentage of individuals exposed to various concentrations who are likely to experience such effects and as to the long-term medical significance of these effects.

Ozone Final Rule, 62 Fed. Reg. at 38,868/2.

In other words, effects are less certain and less severe at lower levels of exposure. This seems to be nothing more than a statement that lower exposure levels are associated with lower risk to public health. The dissent argues that in setting the standard at 0.08, EPA relied on evidence that health effects occurring below that level are "transient and reversible," Dissent at 5, evidently assuming that those at higher levels are not. But the EPA language quoted above does not make the categorical distinction the dissent says it does, and it is far from apparent that any health effects existing above the level are permanent or irreversible.

In addition to the assertion quoted above, EPA cited the consensus of the Clean Air Scientific Advisory Committee ("CASAC") that the standard should not be set below 0.08. That body gave no specific reasons for its recommendations, so the appeal to its authority, also made in defense of other standards in the PM Final Rule, see PM Final Rule, 62 Fed. Reg. at 38,677/2 (daily fine PM standard); *id.* at 38,678/3 (annual coarse PM standard); *id.* at 38,679/1 (daily coarse PM standard), adds no enlightenment. The dissent stresses the undisputed eminence of CASAC's members, Dissent at 4, but the question whether EPA acted pursuant to lawfully delegated authority is not a scientific one. Nothing in what CASAC says helps us discern an intelligible principle derived by EPA from the Clean Air Act.

Finally, EPA argued that a 0.07 standard would be "closer to peak background levels that infrequently occur in some areas due to nonanthropogenic sources of O₃ precursors, and thus more likely to be inappropriately targeted in some areas on such sources." Ozone Final Rule, 62 Fed. Reg. at 38,868/3. But a 0.08 level, of course, is also closer to these peak levels than 0.09. The dissent notes that a single background observation fell between 0.07 and 0.08, and says that EPA's decision "ensured that if a region surpasses the ozone standard, it will do so because of controllable human activity,

not uncontrollable natural levels of ozone." Dissent at 6. EPA's language, coupled with the data on background ozone levels, may add up to a backhanded way of saying that, given the national character of the NAAQS, it is inappropriate to set a standard below a level that can be achieved throughout the country without action affirmatively extracting chemicals from nature. That may well be a sound reading of the statute, but EPA has not explicitly adopted it.

EPA frequently defends a decision not to set a standard at a lower level on the basis that there is greater uncertainty that health effects exist at lower levels than the level of the standard. See Ozone Final Rule, 62 Fed. Reg. at 38,868/2; PM Final Rule, 62 Fed. Reg. at 38,676/3 (annual fine PM standard); *id.* at 38,677/2 (daily fine PM standard). And such an argument is likely implicit in its defense of the coarse PM standards. See PM Final Rule, 62 Fed. Reg. at 38,678/3-79/1. The dissent's defense of the fine particulate matter standard cites exactly such a justification. See Dissent at 6 ("The Agency explained that 'there is generally greatest statistical confidence in observed associations ... for levels at and above the mean concentration [in certain studies]' ") (emphasis added in dissent). But the increasing-uncertainty argument is helpful only if some principle reveals how much uncertainty is too much. None does.

The arguments EPA offers here show only that EPA is applying the stated factors and that larger public health harms (including increased probability of such harms) are, as expected, associated with higher pollutant concentrations. The principle EPA invokes for each increment in stringency

(such as for adopting the annual coarse particulate matter standard that it chose here)--that it is "possible, but not certain" that health effects exist at that level, see PM Final Rule, 62 Fed. Reg. at 38,678/32--could as easily, for any non-threshold pollutant, justify a standard of zero. The same indeterminacy prevails in EPA's decisions not to pick a still more stringent level. For example, EPA's reasons for not lowering the ozone standard from 0.08 to 0.07 ppm--that "the more serious effects ... are less certain" at the lower levels and that the lower levels are "closer to peak background levels," see Ozone Final Rule, 62 Fed. Reg. at 38,868/2--could also be employed to justify a refusal to reduce levels below those associated with London's "Killer Fog" of 1952. In that calamity, very high PM levels (up to 2,500 Sg/m³) are believed to have led to 4,000 excess deaths in a week.³ Thus, the agency rightly recognizes that the question is one of degree, but offers no intelligible principle by which to identify a stopping point.

The latitude EPA claims here seems even broader than that OSHA asserted in *International Union, UAW v. OSHA* ("Lockout/Tagout I"), 938 F.2d 1310, 1317 (D.C. Cir. 1991), which was to set a standard that would reduce a substantial risk and that was not infeasible. In that case, OSHA thought itself free either to "do nothing at all" or to "require precautions that take the industry to the brink of ruin," with "all positions in between ... evidently equally valid." *Id.* Here, EPA's freedom of movement between the poles is equally unconstrained, but the poles are even farther apart--the maximum stringency would send industry not just to the

2EPA did cite qualitative evidence for further support for its annual standard, and argued that the evidence "does not provide evidence of effects below the range of 40-50 Sg/m3," the standard level. PM Final Rule, 62 Fed. Reg. at 38,678/3. The referenced document, however, bears no indication that the qualitative evidence demonstrates effects at the level of the standard, either. See EPA, "Air Quality Criteria for Particulate Matter," at 13-79 (April 1996).

3See W.P.D. Logan, "Mortality in the London Fog Incident, 1952," The Lancet, Feb. 4, 1953, at 336-38.

brink of ruin but hurtling over it, while the minimum stringency may be close to doing nothing at all.

In Lockout/Tagout I certain special conditions that have justified an exceptionally relaxed application of the nondelegation doctrine were absent, *id.* at 1317-18, and they are equally absent here. The standards in question affect the whole economy, requiring a "more precise" delegation than would otherwise be the case, see *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495, 553 (1935). No "special theories" justifying vague delegation such as the war powers of the President or the sovereign attributes of the delegatee have been or could be asserted. Nor is there some inherent characteristic of the field that bars development of a far more determinate basis for decision. (This is not to deny that there are difficulties; we consider some below.)

EPA cites prior decisions of this Court holding that when there is uncertainty about the health effects of concentrations of a particular pollutant within a particular range, EPA may use its discretion to make the "policy judgment" to set the standards at one point within the relevant range rather than another. *NRDC v. EPA*, 902 F.2d 962, 969 (D.C. Cir. 1990); *American Petroleum Inst. v. Costle*, 665 F.2d 1176, 1185 (D.C. Cir. 1981); *Lead Industries*, 647 F.2d at 1161 (D.C. Cir. 1980). We agree. But none of those panels addressed the claim of undue delegation that we face here, and accordingly had no occasion to ask EPA for coherence (for a "principle," to use the classic term) in making its "policy judgment." The latter phrase is not, after all, a self-sufficient justification for every refusal to define limits.

It was suggested at oral argument that EPA's vision of its discretion in application of s 109(b)(1) is no broader than that asserted by OSHA after a remand by this court and upheld by this court in *International Union, UAW v. OSHA* ("Lockout/Tagout II"), 37 F.3d 665 (D.C. Cir. 1994). But there, in fact, OSHA allowed itself to set only standards falling somewhere between maximum feasible stringency and some "moderate" departure from that level. *Id.* at 669. As our prior discussion should have indicated, here EPA's formulation of

its policy judgment leaves it free to pick any point between zero and a hair below the concentrations yielding London's Killer Fog.

The dissent argues that a nondelegation challenge similar

to this one was rejected in *South Terminal Corp. v. EPA*, 504 F.2d 646 (1st Cir. 1974), and cites that case's language that "the rationality of the means can be tested against goals capable of fairly precise definition in the language of science," *id.* at 677. See Dissent at 2. But the action challenged in *South Terminal* was EPA's adoption of a plan for ending or preventing violations in Boston of already-established NAAQS, not its promulgation of the NAAQS themselves. Thus, it seems likely that the "means" were the plan's provisions--e.g., a prohibition on most new parking in the city, see 504 F.2d at 671, and the "fairly precise[ly] defin[ed]" goals were the NAAQS themselves.

Where (as here) statutory language and an existing agency interpretation involve an unconstitutional delegation of power, but an interpretation without the constitutional weakness is or may be available, our response is not to strike down the statute but to give the agency an opportunity to extract a determinate standard on its own. *Lockout/Tagout I*, 938 F.2d at 1313. Doing so serves at least two of three basic rationales for the nondelegation doctrine. If the agency develops determinate, binding standards for itself, it is less likely to exercise the delegated authority arbitrarily. See *Amalgamated Meat Cutters v. Connally*, 337 F. Supp. 737, 758-59 (D.D.C. 1971) (Leventhal, J., for three-judge panel). And such standards enhance the likelihood that meaningful judicial review will prove feasible. See *id.* at 759. A remand of this sort of course does not serve the third key function of non-delegation doctrine, to "ensure[] to the extent consistent with orderly governmental administration that important choices of social policy are made by Congress, the branch of our Government most responsive to the popular will," *Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, 685 (1980) ("Benzene") (Rehnquist, J., concurring). The agency will make the fundamental policy choices. But the remand does ensure that the courts not hold unconstitutional a statute

that an agency, with the application of its special expertise, could salvage. In any event, we do not read current Supreme Court cases as applying the strong form of the nondelegation doctrine voiced in Justice Rehnquist's concurrence. See *Mistretta v. United States*, 488 U.S. 361, 377-79 (1989).

What sorts of "intelligible principles" might EPA adopt? Cost-benefit analysis, mentioned as a possibility in *Lockout/Tagout I*, 938 F.2d at 1319-21, is not available under decisions of this court. Our cases read s 109(b)(1) as barring EPA from considering any factor other than "health effects relating to pollutants in the air." *NRDC*, 902 F.2d at 973; see also *Lead Industries*, 647 F.2d at 1148; *American Lung Ass'n v. EPA*, 134 F.3d 388, 389 (D.C. Cir. 1998); *American Petroleum Inst.*, 665 F.2d at 1185 (echoing the same themes).

In theory, EPA could make its criterion the eradication of any hint of direct health risk. This approach is certainly determinate enough, but it appears that it would require the agency to set the permissible levels of both pollutants here at zero. No party here appears to advocate this solution, and EPA appears to show no inclination to adopt it.⁴

EPA's past behavior suggests some readiness to adopt standards that leave non-zero residual risk. For example, it

has employed commonly used clinical criteria to determine what qualifies as an adverse health effect. See Ozone Staff

4A zero-risk policy might seem to imply de-industrialization, but in fact even that seems inadequate to the task (and even if the calculus is confined to direct risks from pollutants, as opposed to risks from the concomitant poverty). First, PM (at least) results from almost all combustion, so only total prohibition of fire or universal application of some heretofore unknown control technology would reduce manmade emissions to zero. See PM Staff Paper at IV-1. Second, the combustion associated with pastoral life appears to be rather deadly. See World Bank, World Development Report 1992: Development and the Environment 52 (1992) (noting that "biomass" fuels (i.e., wood, straw, or dung) are often the only fuels that "poor households, mostly in rural areas" can obtain or afford, and that indoor smoke from biomass burning "contributes to acute respiratory infections that cause an estimated 4 million deaths annually among infants and children.").

Paper at 59-60 (using American Thoracic Society standards to determine threshold for "adverse health effect" from ozone). On the issue of likelihood, for some purposes it might be appropriate to use standards drawn from other areas of the law, such as the familiar "more probable than not" criterion.

Of course a one-size-fits-all criterion of probability would make little sense. There is no reason why the same probability should govern assessments of a risk of thousands of deaths as against risks of a handful of people suffering momentary shortness of breath. More generally, all the relevant variables seem to range continuously from high to low: the possible effects of pollutants vary from death to trivialities, and the size of the affected population, the probability of an effect, and the associated uncertainty range from "large" numbers of persons with point estimates of high probability, to small numbers and vague ranges of probability. This does not seem insurmountable. Everyday life compels us all to make decisions balancing remote but severe harms against a probability distribution of benefits; people decide whether to proceed with an operation that carries a 1/1000 possibility of death, and (simplifying) a 90% chance of cure and a 10% chance of no effect, and a certainty of some short-term pain and nuisance. To be sure, all that requires is a go/no-go decision, while a serious effort at coherence under s 109(b)(1) would need to be more comprehensive. For example, a range of ailments short of death might need to be assigned weights. Nonetheless, an agency wielding the power over American life possessed by EPA should be capable of developing the rough equivalent of a generic unit of harm that takes into account population affected, severity and probability. Possible building blocks for such a principled structure might be found in the approach Oregon used in devising its health plan for the poor. In determining what conditions would be eligible for treatment under its version of Medicaid, Oregon ranked treatments by the amount of improvement in "Quality-Adjusted Life Years" provided by each

treatment, divided by the cost of the treatment.⁵ Here, of

course, EPA may not consider cost, and indeed may well find

5The "quality" of various health states was determined by poll, and medical professionals determined the probabilities and durations of various health states with and without the treatment in question.

Oregon was twice forced to revise its system because the United States Department of Health & Human Services determined that the original proposal and a revision violated the Americans with Disabilities Act, 42 U.S.C. ss 12101-12213. The reason given for this determination was that both versions undervalued the lives of persons with disabilities: The original plan measured quality of life according to the attitudes of the general population rather than the attitudes of persons with disabilities. See HHS, "Analysis Under the Americans with Disabilities Act ('ADA') of the Oregon Reform Demonstration" (Aug. 3, 1992), reprinted in 9 Issues in L. & Med. 397, 410, 410 (1994). The revised plan ranked treatments leaving the patient in a "symptomatic" state lower than those leaving the patient asymptomatic, and certain disabling conditions were considered "symptoms." See Letter from Timothy B. Flanagan, Assistant Attorney General, to Susan K. Zagame, Acting General Counsel, HHS (Jan. 19, 1993), reprinted in 9 Issues in L. & Med. 397, 418, 421 (1994). The Department's determination was extensively criticized when issued. See Maxwell J. Mehlman et al., "When Do Health Care Decisions Discriminate Against Persons with Disabilities?" 22 J. Of Health Politics, Policy & L. 1385, 1390 (1997) (HHS's "decision provoked a storm of disbelief and denunciation").

We take no position on whether HHS's view was correct, or if the underlying norm also governs EPA's decisions under s 109(b)(1). An affirmative answer, however, would not seem to preclude use of some of Oregon's approach. The first step would be giving appropriate weight to the views of persons with disabilities. The second might be measuring the seriousness of a pollution-induced health effect by the absolute level of well-being that the effect brings about, not by the decrease in level that the effect causes. In other words, if the maximum well-being level is 100 and the average asthmatic whose asthma constitutes a disability has a well-being of 80 in the absence of air pollution (according to a measure that appropriately considers asthmatics' own assessments of their condi-

a completely different method for securing reasonable coherence. Alternatively, if EPA concludes that there is no principle available, it can so report to the Congress, along with such rationales as it has for the levels it chose, and seek legislation ratifying its choice.

We have discussed only the primary standards. Because the secondary standards are at least in part based on those, see Ozone Final Rule, 62 Fed. Reg. at 38,875/3-76/1; PM Final Rule, 62 Fed. Reg. at 38,680/3, we also remand the cases to the agency with regard to the secondary standards as well, for further consideration in light of this opinion.

II. Other General Claims

The petitioners and amici contend that the EPA erroneously failed to consider a host of factors in revising the PM and ozone NAAQS. We reject each of these claims in turn.

A. Consideration of Cost in Revising Standards

As this court long ago made clear, in setting NAAQS under s 109(b) of the Clean Air Act, the EPA is not permitted to consider the cost of implementing those standards. See *Lead Industries*, 647 F.2d at 1148 (D.C. Cir. 1980); see also *NRDC*, 902 F.2d at 973 (following *Lead Industries* in reviewing particulate matter NAAQS); *American Petroleum Inst.*, 665 F.2d at 1185 (same, in reviewing ozone NAAQS). The petitioners make four unsuccessful attempts to distinguish *Lead Industries* and its progeny.

First, the petitioners claim that in *Lead Industries* we held only that the Clean Air Act does not compel the EPA to consider the costs of implementation in setting a NAAQS; on the contrary, we held that the Act precludes the EPA from doing so. See *Lead Industries*, 647 F.2d at 1148 ("the statute

tion), then a response to air pollution that reduces the asthmatics' well-being to 70 could be counted as an effect of magnitude 30 (the difference from full health), rather than 10 (the difference from the level without the pollution). That approach would ensure that effects on persons with disabilities were not underestimated, even in the broad sense of that term apparently adopted by HHS.

and its legislative history make clear that economic considerations play no part in the promulgation of [NAAQS]").

Second, that we decided *Lead Industries* prior to the Supreme Court's decision in *Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837 (1984) does not, as the petitioners suggest, require us to revisit the earlier case. The *Lead Industries* decision was made in *Chevron* step one terms, see *id.*, as the post-*Chevron* progeny of *Lead Industries* have made clear. See *NRDC*, 902 F.2d at 973 ("Consideration of costs ... would be flatly inconsistent with the statute, legislative history and case law on this point"); *NRDC v. EPA*, 824 F.2d 1146, 1158C59 (D.C. Cir. 1987) (in banc) ("*Vinyl Chloride*") ("[S]tatute on its face does not allow consideration of technological or economic feasibility.... Congress considered the alternatives and chose to close down sources or even industries rather than to allow risks to health").

Third, though the petitioners are correct that in *Lead Industries* we interpreted s 109(b), which governs the setting of NAAQS, and not s 109(d), which governs the revising of NAAQS, we can discern no legally relevant difference in the two sections that would make *Lead Industries* inapplicable to s 109(d). Section 109(d)(1) directs the EPA to:

complete a thorough review of the criteria published under section 7408 of this title and the [NAAQS] promulgated under this section and [to] make such revisions in such criteria and standards and promulgate such new standards as may be appropriate in accordance with section 7408 of this title and subsection (b) of this section.

42 U.S.C. s 7409(d)(1). The petitioners contend that consideration of costs is one pertinent factor in determining whether revision of a NAAQS is "appropriate," but this argument ignores the clause immediately following "appropriate," which incorporates s 109(b) and thereby affirmatively precludes consideration of costs in revising NAAQS. Section 108(b), 42 U.S.C. s 7408(b), does require the EPA to provide the States

with information on the cost of implementing NAAQS, but the reference to s 108 does not permit consideration of costs in setting NAAQS because it clearly relates back to the require-

ment that the EPA "make ... revisions in ["the criteria published under section 7408"] ... as may be appropriate." And insofar as the air quality criteria do apply to the setting of NAAQS, they do so through s 109(b), which (again) precludes the consideration of costs and which is explicitly incorporated into s 109(d)(1). See *id.* s 7409(b)(1) (primary NAAQS to be "based on [the air quality] criteria" issued under s 108).

Fourth, the petitioners point to s 109(d)(2), which creates the CASAC and requires it to advise the EPA about, among other things, "any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such [NAAQS]." *Id.* s 7409(d)(2)(C)(iv). Why, ask the petitioners, would the CASAC be required to advise the EPA about these matters if the EPA were not then supposed to consider its advice in the course of revising the NAAQS? As above, however, the petitioners overlook that s 109(d)(1) directs the EPA to review and to revise, as appropriate, the air quality standards issued under s 108 as well as the NAAQS promulgated under s 109(b). The advice required in s 109(d)(2)(C)(iv) is pertinent only to the EPA's duty under s 108 to provide the States with control strategy information.

B.Environmental Consequences of Implementing NAAQS

The State Petitioners argue that the EPA erred in failing "to consider the environmental consequences resulting from the financial impact of the [revised PM2.5 and ozone NAAQS] on the federal Abandoned Mine Reclamation Fund Act." This argument is squarely foreclosed by our decision in *NRDC*. In reviewing the EPA's previous revision of the PM NAAQS, we rejected the argument that the EPA "erred in refusing to consider the health consequences of unemployment in determining the primary [NAAQS] for particulate matter" and held that "[i]t is only health effects relating to pollutants in the air that EPA may consider." 902 F.2d at 972-73 (emphasis in original). Unlike the positive health benefits of ozone that we hold (in Part III.B, below) the EPA

must consider, any detrimental health effects resulting from the financial impact upon the mine fund, like the health consequences of unemployment, are traceable to the cost of complying with the revised PM2.5 and ozone NAAQS and not to the presence of those pollutants in the air.

C.The National Environmental Policy Act

In challenging both the revised PM2.5 and ozone NAAQS, the State Petitioners also argue that the EPA failed to comply with certain requirements of the NEPA. The petitioners recognize that the Congress has exempted all actions under the Clean Air Act, including the setting of NAAQS, from the central requirement of the NEPA, namely, the preparation of an Environmental Impact Statement. Com-

pare 42 U.S.C. s 4332(2)(C)-(D) (agency must prepare EIS in all "major Federal actions significantly affecting the quality of the human environment"), with 15 U.S.C. s 793(c)(1) ("No action taken under the Clean Air Act shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the [NEPA]"). Nonetheless, they suggest that the EPA is required to complete the functional equivalent of an EIS and also to comply with other requirements in the NEPA, see 42 U.S.C. s 4332(2)(B), (E), (G). State Petitioners' PM Brief at 20; State Petitioners' Ozone Brief at 19. We reject each of these suggestions.

First, the State Petitioners contend that this court has "recognized that the '[CAA], properly construed, requires the functional equivalent of a NEPA impact statement,' " id. (quoting Portland Cement Ass'n v. Ruckelshaus, 486 F.2d 375, 384 (1973)). Our decision in Portland Cement, however, actually construed only "section 111 of the Clean Air Act." By replacing these words with "[CAA]" in their briefs, the petitioners misrepresent our interpretation of a single section of the Clean Air Act, dealing with emission standards for stationary sources, as an interpretation of the entire Act. Even if the petitioners were correct, however, Portland Ce-

ment predated, and is now superseded by, the statutory exemption in 15 U.S.C. s 793(c)(1), which the Congress added in 1974.

Second, the State Petitioners contend that a provision of the NEPA "requires that EPA weigh 'economic considerations.' " The section to which the petitioners refer reads as follows: "all agencies of the Federal Government shall ... identify and develop methods and procedures ... which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations." 42 U.S.C. s 4332(2)(B). Even if this section is properly read generally to require an agency to consider implementation costs, s 109(d)(1) specifically prohibits the EPA from doing so. And the NEPA provides that it shall not "in any way affect the specific statutory obligations of any Federal agency ... to comply with criteria or standards of environmental quality." 42 U.S.C. s 4334(1). Therefore, s 4332(2)(B) cannot require the EPA to disregard the prohibition in s 109(d)(1) upon the consideration of costs in setting NAAQS.

The State Petitioners' remaining arguments--that the EPA failed to comply with two other sections of the NEPA--fare little better. Section 4332(2)(E) requires federal agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." As with s 4332(2)(B), insofar as s 4332(2)(E) can be read to require the EPA to consider the costs of implementing NAAQS when revising those standards, contrary to the prohibition in s 109(d)(1), s 4334(1) prevents it from having any effect.

If, on the other hand, s 4332(2)(E) is understood in the context of the Clean Air Act to require the EPA merely to discuss implementation alternatives, then it, like the similar

s 4332(2)(G) with which the petitioners also claim the EPA failed to comply, is the functional equivalent of s 108(b)(1). That section requires the EPA to provide the States with, among other things, "such data as are available on available

technology and alternative methods of prevention and control of air pollution." As we recognize with regard to the requirement that the agency prepare an EIS, "[c]ompliance with NEPA's ... requirement[s] has not been considered necessary when the agency's organic legislation mandates procedures for considering the environment that are 'functional equivalents' of the [NEPA's] process." Izaak Walton League of Am. v. Marsh, 655 F.2d 346, 367 n.51 (1981). The rationale for the functional equivalence doctrine is the well-established principle that a "general statutory rule usually does not govern unless there is no more specific rule." Green v. Bock Laundry Mach. Co., 490 U.S. 504, 524 (1989); see also Alabama ex rel. Siegelman v. EPA, 911 F.2d 499, 504-05 (11th Cir. 1990) (citing cases). The NEPA is the general statute requiring agencies to consider environmental harms, whereas the Clean Air Act is the more specific and its equivalent provisions apply in place of those in the NEPA. See Portland Cement, 486 F.2d at 386 (finding functional equivalence when more specific statute strikes "workable balance between some of the advantages and disadvantages of full application of NEPA").

Our analysis of the petitioners' contentions leads us to conclude that nothing in the NEPA requires the EPA in setting NAAQS to consider or to discuss matters that the Clean Air Act does not already permit or require.

D. The Unfunded Mandates Reform Act

The State Petitioners in the particulate matter case and Congressman Bliley in the ozone case both contend that the EPA is required by the Unfunded Mandates Reform Act, 2 U.S.C. s 1501 et seq., to prepare a Regulatory Impact Statement (RIS) when setting a NAAQS, see id. s 1532, and to choose the least burdensome from a range of alternative permissible NAAQS, see id. s 1535. Even if the petitioners and the amicus are correct regarding the interaction of the UMRA and the CAA--a point the EPA strongly contests--we can provide them with no relief. See id. s 1571(a)(3) ("[T]he inadequacy or failure to prepare [a RIS] ... shall not be used as a basis for staying, enjoining, invalidating or

otherwise affecting [an] agency rule"); id. s 1571(b) ("Except as provided in [s 1571(a), which does not mention s 1535,] ... any compliance or noncompliance with the provisions of this chapter ... shall not be subject to judicial review; and no provision of this chapter shall be construed to [be] ... enforceable by any person in any ... judicial action").

The State Petitioners, recognizing the limitations upon judicial review in s 1571, contend that the EPA's failure to prepare a RIS can nonetheless render the NAAQS arbitrary and capricious, see 42 U.S.C. s 7607(d)(9), relying upon Thompson v. Clark, 741 F.2d 401 (D.C. Cir. 1984). In that case, we interpreted a statute that, like the UMRA, both specified that the RIS be included in the record for judicial

review and precluded judicial review of an agency's compliance with the RIS requirement. We held that a "reviewing court will consider the contents of the [RIS], along with the rest of the record, in assessing not the agency's compliance with the [requirement to prepare the RIS], but the validity of the rule under other provisions of law." *Id.* at 405. No information in a RIS, however, could lead us to conclude that the EPA improperly set the PM and ozone NAAQS; the only information such a statement would add to the rulemaking record for a NAAQS would pertain to the costs of implementation, see 2 U.S.C. s 1532(a), and the EPA is precluded from considering those costs in setting a NAAQS. Accordingly, the failure to prepare a RIS does not render the NAAQS arbitrary and capricious.

E.The Regulatory Flexibility Act

In both the ozone and particulate matter cases, the Small Business Petitioners argue that the EPA improperly certified that the revised NAAQS would not have a significant impact upon a substantial number of small entities. The Regulatory Flexibility Act, 5 U.S.C. s 601 et seq., as amended in 1996 by the Small Business Regulatory Enforcement Fairness Act, Pub. L. No. 104-121, tit. II, 110 Stat. 857-74 ("SBREFA"), requires an agency, when engaging in notice and comment rulemaking, to "prepare and make available for public comment an initial regulatory flexibility analysis.... [that] de-

scribe[s] the impact of the proposed rule on small entities," 5 U.S.C. s 603(a), including small businesses, small organizations, and small governmental jurisdictions, see *id.* s 601(6). When promulgating a final rule, an agency must describe "the steps ... taken to minimize the significant economic impact on small entities." *Id.* s 604(a)(5). According to the petitioners, if the EPA had complied with the RFA, it would likely have promulgated less stringent PM and ozone NAAQS than those actually chosen, which would have reduced the burden upon small entities.

A regulatory flexibility analysis is not required, however, if the agency "certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." *Id.* s 605(b). Further, the SBREFA made no change in the requirement that a regulatory flexibility analysis conducted pursuant to the RFA include estimates of "the number of small entities to which the proposed rule will apply" and of "the classes of small entities which will be subject to the requirement." 5 U.S.C. s 603(b)(3)-(4). We have consistently interpreted the RFA, based upon these sections, to impose no obligation upon an agency "to conduct a small entity impact analysis of effects on entities which it does not regulate." *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449, 467 & n.18 (1998).

The EPA certified that its revised NAAQS will "not have a significant economic impact on small entities within the meaning of the RFA." PM Final Rule, 62 Fed. Reg. at 38,702/2; Ozone Final Rule, 62 Fed. Reg. at 38,887/2-3. According to the EPA, the NAAQS themselves impose no regulations upon small entities. Instead, the several States regulate small entities through the state implementation plans (SIPs) that they are required by the Clean Air Act to develop. See 42

U.S.C. s 7410. Because the NAAQS therefore regulate small entities only indirectly--that is, insofar as they affect the planning decisions of the States--the EPA concluded that small entities are not "subject to the proposed regulation." See *Mid-Tex Elec. Coop., Inc. v. FERC*, 773 F.2d 327, 342 (D.C. Cir. 1985); see also *id.* at 343 ("Congress did not intend to require that every agency consider every indirect effect

that any regulation might have on small businesses in any stratum of the national economy.").

The EPA's description of the relationship between NAAQS, SIPs, and small entities strikes us as incontestable. The States have broad discretion in determining the manner in which they will achieve compliance with the NAAQS. The EPA "is required to approve a state plan which provides for the timely attainment and subsequent maintenance of ambient air standards" and cannot reject a SIP based upon its view of "the wisdom of a State's choices of emission limitations," *Train v. NRDC*, 421 U.S. 60, 79 (1975) (emphasis in original), or of the technological infeasibility of the plan. See *Union Elec. Co. v. EPA*, 427 U.S. 246, 265 (1976). Therefore, a State may, if it chooses, avoid imposing upon small entities any of the burdens of complying with a revised NAAQS. Only if a State does not submit a SIP that complies with s 110, 42 U.S.C. s 7410, must the EPA adopt an implementation plan of its own, which would require the EPA to decide what burdens small entities should bear. The agency has stated, however, that it will do a regulatory flexibility analysis before adopting an implementation plan of its own, as it did in 1994 when proposing such a plan for Los Angeles. See *Ozone Final Rule*, 62 Fed. Reg. at 38,891/1; *PM Final Rule*, 62 Fed. Reg. at 38,705/3.

The responses of the Small Business Petitioners do not persuade us to reject the EPA's argument or to deviate from our holdings in *Mid-Tex* and its progeny. First, the Small Business Petitioners contend that we must defer to the Small Business Administration's interpretation of the Act, as expressed in a letter to the EPA from the SBA's Chief Counsel for Advocacy, that the NAAQS do impose requirements upon small entities. The SBA, however, neither administers nor has any policymaking role under the RFA; at most its role is advisory. See, e.g., 5 U.S.C. ss 601(3), 602(b), 603(a), 605(b), 609(b)(1), 612. Therefore, we do not defer to the SBA's interpretation of the RFA. See *Scheduled Airlines Traffic Offices, Inc. v. Department of Defense*, 87 F.3d 1356, 1361 (D.C. Cir. 1996) (no Chevron deference owed to agency interpretation of statute it does not administer). Nor do we

defer to the EPA's interpretation of the RFA, for it does not administer the Act either. We do, however, find the EPA's interpretation of the statute persuasive.

Second, the Small Business Petitioners argue that the EPA cannot claim both that the NAAQS will have no effect upon small entities and that it will have positive health effects. Clearly, however, the EPA can maintain that the NAAQS will have health effects because the Clean Air Act empowers the agency to ensure that such benefits accrue; and it can

maintain that the NAAQS will not directly affect small entities because it has no authority (short of imposing its own implementation plan upon a non-complying state) to impose any burdens upon such entities.

Third, the Small Business Petitioners attempt to distinguish the possible effects upon small entities in this case from the indirect effects that, as we found in Mid-Tex, are not within the contemplation of the RFA. But Mid-Tex is not so easily distinguished. The petitioners in that case argued that the RFA required the FERC to consider economic effects not only upon regulated industries but also upon the small entities that are their wholesale customers, even though the customers were not directly regulated by the FERC. We rejected that argument, finding a "clear indication" in the language of s 603 that the RFA is "limited to small entities subject to the proposed regulation." Mid-Tex, 773 F.2d at 342; see also Motor & Equip. Mfrs. Ass'n, 142 F.3d at 467 n.18 ("The RFA itself distinguishes between small entities subject to an agency rule, to which its requirements apply, and those not subject to the rule, to which the requirements do not apply."); United Distribution Cos. v. FERC, 88 F.3d 1105, 1170 (1996) (regulatory flexibility analysis provision applies only to "small entities that are subject to the requirements of the rule") (emphasis in original). That the Clean Air Act requires the States to submit SIPs that will achieve compliance with the NAAQS does not, in view of the States' nearly complete discretion to determine which entities will bear the burdens of a revised NAAQS, make such small entities as the SIPs may regulate any more subject to the

EPA's regulation than were the wholesalers in Mid-Tex subject to regulation by the FERC.

Finally, the Small Business Petitioners suggest that the Congress in enacting the SBREFA overruled our prior interpretation of the RFA in Mid-Tex and its progeny. The SBREFA made a number of changes in the RFA, but it did not change anything in s 603 upon which we relied in Mid-Tex. And although the Congress made a slight modification in s 605(b), we do not understand it to alter our analysis in Mid-Tex. Prior to 1996, s 605(b) required an agency to provide "a succinct statement explaining the reasons" for its certification that the promulgated rule would not have a significant economic impact upon small entities. That section now requires "a statement providing the factual basis for such certification." Our decision in Mid-Tex contemplates that an agency may justify its certification under the RFA upon the "factual basis" that the rule does not directly regulate any small entities. Nothing in the change to s 605(b) suggests that basis for certification is no longer permissible. (Indeed, the section of the statute amending s 605(b) is labeled "Technical and Conforming Amendments," see SBREFA s 243, 110 Stat. at 866.) We therefore conclude that the EPA properly certified that its NAAQS would not have a significant impact upon a substantial number of small entities.

III. Ozone

A. Subpart 2 and the Revised Ozone Standard

In 1990 the Congress substantially revised the Clean Air Act by, among other things, adding specific enforcement provisions for carbon monoxide, particulate matter, sulfur oxides, nitrogen dioxide, lead, and as pertinent here, ozone. Previously, the Act required that all areas of the country not attaining the primary ozone standard, no matter how far from attainment, come into compliance "as expeditiously as practicable but not later than December 31, 1987." 42 U.S.C. s 7502 (1988). Many areas had not attained the primary ozone NAAQS by that date; some were still a long way from

doing so. The Congress responded to the continued ozone problem by enacting a new enforcement scheme, which it codified as Subpart 2 of Part D of the Clean Air Act, 42 U.S.C. ss 7511-7511f, redesignating the original provisions as Subpart 1.

Subpart 2 requires the EPA to classify nonattainment areas based upon their design value, which is a rough measure of whether an area complies with the 0.12 ppm, 1-hour primary ozone standard.⁶ A table in Subpart 2, set out here in the margin,⁷ establishes classifications ranging from marginal

⁶More specifically, the design value is the fourth-highest daily maximum ozone concentration in an area over three consecutive years for which there are sufficient data. If that value is less than or equal to 0.12 ppm, then an area will have only three expected values above that level and it will be in attainment with the ozone NAAQS. See EPA, The Clean Air Act Ozone Design Value Study: Final Report 1-1 to 1-22 (1994) (filed pursuant to 42 U.S.C. s 7511b(g), which required the EPA to conduct "a study of whether the [existing design value] methodology ... provides a reasonable indicator of the ozone air quality of ozone nonattainment areas"; the EPA concluded it did).

⁷This table appears in Clean Air Act s 181(a)(1), 42 U.S.C. s 7511(a)(1):

TABLE 1

Area Class	Design value [ppm]	Primary standard attainment date
Marginal	0.121 up to 0.138	3 years after November 15, 1990
Moderate	0.138 up to 0.160	6 years after November 15, 1990
Serious	0.160 up to 0.180	9 years after November 15, 1990
Severe	0.180 up to 0.280	15 years after November 15, 1990
Extreme	0.280 and above	20 years after November 15, 1990

The Severe Area category is later subdivided, creating a sixth classification for ozone nonattainment areas. See id. s 7511(a)(2)

to extreme, and provides an attainment date for each class. See id. s 7511(a)(1)-(2). Subpart 2 also specifies, for each class of nonattainment areas, both measures that the States must take to reduce emissions of the chemicals that are precursors of ozone and information that the States must

report to the EPA. See *id.* s 7511a. In short, Subpart 2 is the Congress's comprehensive plan for reducing ozone levels throughout the country.

The State and Non-State Petitioners, along with Congressman Bliley appearing as an *amicus curiae*, argue that Subpart 2 precludes the EPA from revising the primary and secondary ozone NAAQS. We reject this argument (in Part III.A.1) insofar as it pertains to the EPA's continued ability to promulgate a revised ozone NAAQS or to designate areas as not in attainment with a revised NAAQS. We agree (in Part III.A.2) with those petitioners, however, insofar as they maintain, based upon the text and structure of Subparts 1 and 2, that the EPA is precluded from enforcing a revised primary ozone NAAQS other than in accordance with the classifications, attainment dates, and control measures set out in Subpart 2. Further, we conclude (in Part III.A.3) that the EPA may not require a State to comply with a revised secondary ozone NAAQS in any area that has yet to attain the 0.12 ppm primary standard.

1. The EPA's Power to Revise the Ozone NAAQS and Designate Areas as Nonattainment

The 1990 amendments did not alter the section of the Clean Air Act that provides for setting and revising primary and secondary NAAQS. See 42 U.S.C. s 7409. The Administrator, therefore, still must "at five-year intervals [from December 31, 1980] ... complete a thorough review of ... the [NAAQS] promulgated under this section and ... make such revisions in such ... standards ... as may be appropriate." *Id.* s 7409(d)(1). The Second Circuit held that this section continues to "set[] forth a bright-line rule for agency action,"

("Notwithstanding table 1, [for] a severe area with a 1988 ozone design value between 0.190 and 0.280 ppm, the attainment date shall be 17 years ... after November 15, 1990").

American Lung Ass'n v. Reilly, 962 F.2d 258, 263 (1992), and we agree. Nothing in the Act modifies this "bright-line rule" or otherwise makes it inapplicable to revision of the ozone NAAQS.

To the extent that the 1990 amendments shed any light upon this question, they suggest that the EPA retains its authority to revise the ozone NAAQS. For example, if the EPA relaxes a NAAQS after enactment of the 1990 amendments, then "the Administrator shall ... promulgate requirements applicable to all areas which have not attained that [relaxed] standard as of the date of such relaxation... [which] shall provide for controls ... not less stringent than the controls applicable to areas designated nonattainment before such relaxation." 42 U.S.C. s 7502(e). Although two other subsections of s 172 are expressly made inapplicable to the ozone regulations in Subpart 2, see *id.* s 7502(a)(1)(C), (a)(2)(D), this so-called anti-backsliding provision contains no such exemption. Accordingly, as the EPA notes, this section specifically contemplates that the agency may relax its ozone NAAQS and, therefore, necessarily implies that it retains the authority to revise that NAAQS. Tellingly, neither the petitioners nor the *amicus* reply to this point.

The petitioners and *amicus* raise two other arguments to

support their position that the EPA cannot alter the ozone NAAQS without the approval of the Congress. We reject both in short order.

First, the Non-State Petitioners contend that Subpart 2 renders revision of the ozone NAAQS "inappropriate" within the meaning of s 109(d)(1), which provides the EPA shall "make such revisions in such ... standards ... as may be appropriate." 42 U.S.C. s 7409(d)(1). This argument, however, pointedly ignores the text immediately following the word "appropriate," which specifies that appropriateness is to be determined "in accordance with section 7408 ... and [s 7409(b)]" (and which, as we read it, means exclusively in accord with those sections). See, e.g., *American Methyl Corp. v. EPA*, 749 F.2d 826, 835-36 (D.C. Cir. 1984). Because Subpart 2 is neither listed in s 109(d)(1) nor incorporated by

reference in either s 108, id. s 7408, or s 109(b), it cannot render revision of the ozone NAAQS inappropriate.

Second, the State Petitioners and Congressman Bliley argue, based upon the classification table in s 181(a)(1), id. s 7511(a)(1), that Subpart 2 codified the 0.12 ppm ozone NAAQS and, therefore, only the Congress can promulgate a revised NAAQS. Yet not all areas designated nonattainment for ozone will have design values of 0.121 ppm or higher. In fact, this was true of areas designated nonattainment for ozone as a result of the 1990 amendments, see *Ozone Final Rule*, 62 Fed. Reg. at 38,884/3, at least in part because of the stringent criteria in the Clean Air Act for changing the designation of an area to attainment from nonattainment. See 42 U.S.C. 7407(d)(3)(E)(iii) (redesignation permissible only if area's attainment of NAAQS "is due to permanent and enforceable reductions in emissions"). In short, although the numbers in the classification table are based upon the 0.12 ppm ozone NAAQS, they are neither equivalent to nor a codification of the NAAQS.

Not only does the EPA, as we conclude above, retain authority to promulgate a revised ozone NAAQS; the agency is still required, "in no case later than 2 years from the date of promulgation" of a revised NAAQS, to designate areas as attainment, nonattainment, or unclassifiable under that NAAQS. Id. s 7407(d)(1)(B). Although the 1990 amendments extended by roughly 18 months the maximum time between promulgation of a revised NAAQS and designation of nonattainment areas under that NAAQS, see 42 U.S.C. s 7407(d)(1)-(2) (1988), they made no substantive change in the EPA's authority to designate areas as nonattainment under a revised NAAQS. Therefore, we hold that the EPA retains the power to designate areas as nonattainment under a revised ozone NAAQS.

2. The EPA's Power to Enforce the Revised Ozone Standard

That the enactment of Subpart 2 does not alter the EPA's authority to revise the ozone NAAQS or to designate areas as nonattainment for ozone does not, however, compel the con-

clusion that Subpart 2 has no effect upon the EPA's authority

to enforce a revised primary ozone NAAQS. (We consider the enforcement of secondary ozone NAAQS in Part III.A.3, below.) In fact, the text and structure of Subparts 1 and 2 suggest precisely the opposite conclusion. After designating an area as nonattainment under a NAAQS, the EPA normally looks to Subpart 1 for authority to "classify the area for the purpose of applying an attainment date." 42 U.S.C. s 7502(a)(1)-(2). The cited provisions, however, do not apply "with respect to nonattainment areas for which classifications [and attainment dates] are specifically provided under other provisions of [Part D of Subchapter 1 of the Clean Air Act]." Id. s 7502(a)(1)(C), (a)(2)(D).

The EPA argues that Subpart 2 specifically provides classifications and attainment dates only for nonattainment designations under the 0.12 ppm ozone NAAQS. The State and Non-State Petitioners counter that Subpart 2 specifically provides classifications and dates for all areas designated nonattainment under any ozone NAAQS. We agree with the petitioners.

The pertinent provision of Subpart 2 reads as follows:

(a) Classification and attainment dates for 1989 nonattainment areas. -- (1) Each area designated nonattainment for ozone pursuant to section 7407(d) of this title shall be classified at the time of such designation, under table 1, by operation of law, as a Marginal Area, a Moderate Area, a Serious Area, a Severe Area, or an Extreme Area....

Id. s 7511(a)(1). As the petitioners note, s 107(d), 42 U.S.C. s 7407(d), specifies three different times at which an area can be designated "nonattainment for ozone": immediately following enactment of the 1990 amendments, id. s 7407(d)(4); after the EPA revises the ozone NAAQS, id. s 7407(d)(1); and when an area that was in attainment, either when the Congress enacted the 1990 amendments or when the EPA promulgated a revised ozone NAAQS, later ceases to comply, id. s 7407(d)(3). The petitioners conclude from the general reference to s 107(d) that the classifications and attainment

dates in Subpart 2 apply to areas designated under ss 107(d)(1), (3), and (4). The EPA gamely responds that the reference to s 107(d) includes only subsection (4), but we do not defer to the agency's interpretation because we find that the Congress has spoken on the "precise question at issue" and we "must give effect to the unambiguously expressed intent of Congress." *Chevron U.S.A. Inc.*, 467 U.S. 837, 842-43 & n.9 (1984). We canvass the two reasons that lead us to this conclusion before returning to the EPA's argument.

First, the reference to s 107(d) in s 181(a)(1) appears to have been purposeful and not the drafting error that the EPA's interpretation implies. The Congress considered but did not adopt bills that clearly would have limited the reach of Subpart 2 to nonattainment designations made immediately following enactment of the 1990 amendments. The Senate bill contained a version of Subpart 2 that classified only those areas designated nonattainment for ozone under its equivalent of s 107(d)(4). See S. 1630, 101st Cong. ss 101, 107, reprinted in III Legislative History of the Clean Air Act

Amendments of 1990, at 4124-25, 4195 [hereinafter 1990 Legislative History]. The version of Subpart 2 in the House bill, as originally introduced, similarly referred only to designations made under its equivalent of s 107(d)(4). See H.R. 3030, 101st Cong. ss 101(a), 103, reprinted in II 1990 Legislative History, at 3748-49, 3795-96. The House committee, however, replaced the specific reference to what is now s 107(d)(4) with a general reference to s 107(d). See H.R. Rep. No. 101-490, at 3-6, 17 (1990), reprinted in II 1990 Legislative History, at 3027-30, 3041. The Conference committee then reported the text of the House bill rather than that of the Senate. See H.R. Rep. No. 101-952, at 335 (1990), reprinted in I 1990 Legislative History, at 1785.

Second, our conclusion that the Congress intentionally referred to s 107(d) as a whole is supported by a comparison of Subparts 1 and 2. The Congress enacted Subpart 2 because of the failure of the controls in Subpart 1 to bring areas into attainment with the 0.12 ppm standard in the allotted time. See H.R. Rep. No. 101-490, at 145-50, reprinted in II 1990 Legislative History, at 3169-74. Rather than continue treat-

ing all ozone nonattainment areas alike, the Congress allowed the various areas between 3 and 20 years to attain the ozone NAAQS, depending upon the extent of the area's ozone problem. See *id.* at 146-47 ("In 1977, Congress tried to waive [sic] a 'magic wand' and command that all nonattainment areas [for ozone] will meet the applicable [NAAQS].... by December 31, 1987. ... [That] date[] ha[s] come and gone and it is clear that ... we had no 'magic' solutions."), reprinted in II 1990 Legislative History, at 3170-71. As the petitioners argue, because the 1990 amendments extended the time for nonattainment areas to comply with the 0.12 ppm ozone NAAQS, they must preclude the EPA from requiring areas to comply either more quickly or with a more stringent ozone NAAQS.

Subpart 1 requires compliance with a primary NAAQS "as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment." 42 U.S.C. s 7502(a)(2)(A). All nonattainment areas would have until 2012 to comply with the revised ozone NAAQS if the EPA and the States were to take the full time authorized in Subpart 1 for making attainment designations and the EPA were to approve every possible extension for each area. See *id.* ss 7407(d)(1)(A)-(B), 7502(a)(2)(A), (C). Such wide discretion is inconsistent, however, with Subpart 2, in which the Congress stripped the EPA of discretion to decide which ozone nonattainment areas should receive more time to reach attainment (with two limited exceptions not relevant here, see *id.* s 7511(a)(4), (5)). Moreover, under s 181(a) of Subpart 2, Los Angeles, the nation's only Extreme Area, has until 2010 to attain the 0.12 ppm ozone NAAQS, and the possibility of extending that deadline until 2012. That Los Angeles should also have to attain a more stringent ozone standard by that same year, if, not earlier, clearly runs counter to the comprehensive enforcement scheme enacted in Subpart 2.

The EPA offers two arguments against this interpretation of Subparts 1 and 2. First, the EPA contends that a recent statute confirms its power to designate nonattainment areas under the revised ozone standard. See Pub. L. No. 105-178,

s 6103(a), 112 Stat. 465 (1998) (extending time to two years

from one year for governor to submit proposed designation under 0.08 ppm ozone NAAQS). That statute also specifically states, however, that "[n]othing in section[] ... 6103 shall be construed by the Administrator of Environmental Protection Agency or any court ... to affect any pending litigation or to be a ratification of the ozone ... standard[]." Id. s 6104. Further, even if the EPA were correct that s 6103 confirms the agency's power to designate areas under a revised ozone NAAQS, that power was never in doubt, as we concluded above. Indeed, s 6104 simply does not bear upon the question we address here: whether Subpart 1 or Subpart 2 provides the applicable enforcement mechanisms for an area designated nonattainment under a revised ozone NAAQS.

Second, the EPA argues that read in context the reference to s 107(d) in s 181(a)(1) relates only to designations made under s 107(d)(4). Because the table in s 181(a)(1) classifies areas based upon a design value that roughly measures attainment of the 0.12 ppm ozone NAAQS, the EPA contends that the nonattainment designations referenced in s 181(a)(1) are only those designations made under the 0.12 ppm ozone NAAQS. This explanation, however, does not square with either the Congress's decision not to refer to s 107(d)(4) specifically or the long-term nature of the attainment scheme enacted in Subpart 2; on the EPA's interpretation, that scheme would have been stillborn had the EPA revised the ozone NAAQS immediately after the Congress enacted the 1990 amendments.

The EPA points next to s 181(b)(1), which specifies the attainment dates for areas that met the 0.12 ppm standard when the Congress enacted the 1990 amendments but that later cease to comply. That section, however, applies only to areas designated under s 107(d)(3) that previously were "designated attainment or unclassifiable for ozone under section [107(d)(4)]." That s 181(b)(1) provides special rules for such areas, but not for areas designated under s 107(d)(3) that had previously been designated attainment for ozone or unclassifiable under s 107(d)(1), does not support the EPA's argument that the phrase in s 181(a)(1) "designated nonattainment for ozone pursuant to section 107(d)" denotes only those designa-

tions made under s 107(d)(4). If anything, the specification of s 107(d)(4) in s 181(b)(1) makes its absence from s 181(a)(1) all the more striking.

The final bit of context to which the EPA points is the title of s 181(a): "Classification and attainment dates for 1989 nonattainment areas." Because the title specifies "1989 nonattainment areas," we are told, s 181(a) must refer only to nonattainment designations made immediately after enactment of the 1990 amendments, that is, designations made under s 107(d)(4). Although "the title of a statute or section can aid in resolving an ambiguity in the legislation's text," *INS v. National Ctr. for Immigrants' Rights, Inc.*, 502 U.S. 183, 189 (1991), a title cannot be allowed to create an ambiguity in the first place. See *Maguire v. Commissioner of Internal Revenue*, 313 U.S. 1, 9 (1941) ("[T]he title of an act

will not limit the plain meaning of the text."). The text of s 181(a) clearly encompasses nonattainment designations made under all subsections of s 107(d). There simply is no ambiguity in need of resolution by reference to the title of the section.

In sum, s 181(a) "specifically provide[s]" for classifications and attainment dates for areas designated nonattainment for ozone pursuant to s 107(d)(1). Accordingly, Subpart 2, not Subpart 1, provides the classifications and attainment dates for any areas designated nonattainment under a revised primary ozone NAAQS, see 42 U.S.C. s 7502(a)(1)(C), (a)(2)(D), and the EPA must enforce any revised primary ozone NAAQS under Subpart 2.

3. The Secondary Ozone NAAQS

The Non-State Petitioners briefly contend that our conclusion that Subpart 2 provides the classifications and attainment dates for areas designated nonattainment under a revised primary ozone NAAQS is equally applicable to the enforcement of a revised secondary ozone NAAQS. We find it impossible to conclude, however, that Subpart 2 "specifically provide[s]" for classifications and attainment dates for areas designated nonattainment with a revised secondary ozone NAAQS; s 181(a)(1) expressly refers only to primary

NAAQS and Subpart 2 not once mentions secondary NAAQS. Further, attainment dates in Subpart 1 for secondary standards are less stringent than for primary standards, making comparison with the more lenient dates in Subpart 2 less troubling. Compare id. s 7502(a)(2)(B) (attainment of secondary NAAQS "shall be ... achieved as expeditiously as practicable after the date such area was designated nonattainment"), with id. s 7502(a)(2)(A) (attainment of primary NAAQS "shall be ... achieved as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment"). Nonetheless, we understand Subpart 2 to codify the Congress's judgment as to what is "as expeditiously as practicable" in reducing an area's level of ozone. Consequently, the EPA is precluded from requiring any steps toward compliance with a revised secondary ozone NAAQS prior to an area's attainment of the 0.12 ppm standard. In areas that meet the 0.12 ppm standard, however, Subpart 2 erects no bar to the EPA's requiring compliance with a revised secondary ozone NAAQS "as expeditiously as practicable."

B. Ozone's Health Benefits

Petitioners presented evidence that according to them shows the health benefits of tropospheric ozone as a shield from the harmful effects of the sun's ultraviolet rays--including cataracts and both melanoma and nonmelanoma skin cancers. In estimating the effects of ozone concentrations, EPA explicitly disregarded these alleged benefits.

EPA explained its decision first as a matter of statutory interpretation. Under the Clean Air Act, EPA's ambient standards for any pollutant are to be "based on [the] criteria" that EPA has published for that pollutant. 42 U.S.C. s 7409(b)(1) & (2). The "criteria," in turn, are to "reflect the

latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities." Id. s 7408(a)(2). The reference to "all identifiable effects" would seem on its face to include beneficent effects.

EPA attempts to avoid this straightforward reading in several ways. First, it points to the term "such pollutant," arguing that the statute requires it to focus exclusively on the characteristics that make the substance a "pollutant." But the phrase "pollutant" is simply a label used to identify a substance to be listed and controlled by the statute. While it is perfectly true that a substance known to be utterly without adverse effects could not make it onto the list, this fact of nomenclature does not visibly manifest a congressional intent to banish consideration of whole classes of "identifiable effects."

EPA also relies on the fact that two of the three specified considerations under s 108(a)(2)'s general mandate refer to "adverse effect[s]":

The criteria for an air pollutant, to the extent practicable, shall include information on--

(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;

(B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and

(C) any known or anticipated adverse effects on welfare.

Id. s 7408(a)(2) (emphasis added). EPA's argument would be of uncertain force even if all three types of effects specifically required to be considered were spoken of as "adverse effects"; there is no reason to read "adverse" back into the "all identifiable effects" of s 108(a)(2). But as one of the three specified classes refers to "effects" unmodified, id. s 7408(a)(2)(A), we can reject EPA's argument without even reaching that issue. That Congress qualified "effects" in clauses (B) and (C) with "adverse" seems only to strengthen the supposition that in (A)--and in the general mandate--it intended to cover all health or welfare effects. Therefore if petitioners' contentions are right, clause (A) applies to ozone:

the presence of ultraviolet radiation at various levels "alter[s] the effects [of ozone] on public health or welfare" by making them on the whole less malign--perhaps even beneficial.

EPA next argues that Title VI of the Clean Air Act, id. ss 7671-7671q, which mandates certain measures to preserve stratospheric ozone, represents a complete consideration of ozone's beneficial role as a UV shield. Petitioners' claim, however, is that ground-level (tropospheric) ozone--the subject of this rule--has a UV-screening function independent of

the ozone higher in the atmosphere. EPA points to nothing in the statute that purports to address tropospheric ozone.

Finally, EPA directs us towards legislative history from the 1970 and 1990 Clean Air Act Amendments. The "all identifiable effects" language, however, dates to the 1967 Amendments. Legislative history from the 1970 and 1990 Congresses cannot be "an authoritative interpretation of what the [1967] statute meant," because it is "the function of the courts and not the Legislature, much less a Committee of one House of the Legislature, to say what an enacted statute means." *Pierce v. Underwood*, 487 U.S. 552, 566 (1988).

Under *Chevron*, we defer to an agency's interpretation of a statute if "the statute is silent or ambiguous with respect to the specific issue" and "the agency's answer is based on a permissible construction of the statute." 467 U.S. at 843. We find no such ambiguity in this case. Further, EPA's interpretation fails even the reasonableness standard of *Chevron's* second part: it seems bizarre that a statute intended to improve human health would, as EPA claimed at argument, lock the agency into looking at only one half of a substance's health effects in determining the maximum level for that substance. At oral argument even EPA counsel seemed reluctant to claim that the statute justified disregard of the beneficent effects of a pollutant bearing directly on the health symptoms that accounted for its being thought a pollutant at all (suppose, for example, a chemical that both impedes and enhances breathing, depending on the person or circumstances); he also seemed unable to distinguish that case from

the one here--where the chemical evidently impedes breathing but provides defense against various cancers.

Legally, then, EPA must consider positive identifiable effects of a pollutant's presence in the ambient air in formulating air quality criteria under s 108 and NAAQS under s 109. EPA's other arguments are technical, and are of two sorts: those that allegedly show petitioners' studies to be fatally flawed and those that allegedly show specific inflation of results in these studies. We need only consider the first sort, for EPA chose to give the studies no weight at all.

Petitioners rely primarily on studies by Lutter and Cupitt. EPA found that these could be ignored because the marginal benefits are difficult, if not impossible, to quantify reliably and because there is "no convincing basis for concluding that any such effects ... would be significant." But these are not the criteria by which EPA assesses adverse health effects. It does not rigorously or uniformly demand either quantifiability, see, e.g., *Ozone Final Rule*, 62 Fed. Reg. at 38,860/3 (admitting that "quantitative risk estimates could not be developed" for certain adverse effects of ozone on which EPA regulated); EPA Ozone Brief at 48 (defending consideration of various effects that "played an important role in the Administrator's final decision" despite absence of quantification: "EPA did not estimate the risk for such effects because 'information [was] too limited to develop quantitative estimates,'--not because there is doubt the effects occur.") (alteration and emphasis in original) (citation omitted), or any specific level of significance. As we can see no reason for imposing a higher information threshold for beneficent effects

than for maleficent ones, we have no basis for affirming EPA's decision to disregard the studies.

As we said above, we are remanding to EPA to formulate adequate decision criteria for its ordinary object of analysis-- ill effects. We leave it to the agency on remand to determine whether, using the same approach as it does for those, tropospheric ozone has a beneficent effect, and if so, then to assess ozone's net adverse health effect by whatever criteria it adopts.

IV. Particulate Matter

A. PM10 as Coarse Particle Indicator

We now turn to petitioners' challenges to the Agency's regulation of coarse particulate pollution. Both the 1987 NAAQS and the proposed standards regulate all particles with diameters under 10 micrometers, signified by the indicator PM10. The PM10 spectrum includes both coarse and fine particles. While the main distinction between coarse and fine particles is the process by which they are produced, EPA and epidemiologists who study the health effects of particulate pollution identify coarse and fine particles through rough approximations of those particles' diameters. Coarse particles, which become airborne usually from the crushing and grinding of solids, generally have diameters between 2.5 and 10 micrometers and can thus be identified by the indicator PM10-2.5. Fine particles, indicated in these new NAAQS by PM2.5, come mainly from combustion or gases and generally have diameters of 2.5 micrometers or less.

Despite EPA's conclusion that coarse and fine particles pose independent and distinct threats to public health, the Agency chose not to adopt an indicator, such as PM10-2.5, that would measure only the coarse fraction of PM10. Petitioners make two arguments: that there is no scientific basis for regulating coarse particles at all, and that even if there were, retention of the PM10 indicator simultaneously with the establishment of the new fine particle indicator is unsupported by evidence in the record and arbitrary and capricious. We agree with this latter argument.

Beginning with petitioners' first challenge, we think the record contains sufficient evidence to justify the Agency's decision to regulate coarse particulate pollution. While the relationship between PM10 pollution and adverse health effects justifying the 1987 NAAQS was well-established, see *NRDC v. EPA*, 902 F.2d 962, 967-68 (D.C. Cir. 1990), two studies contained in the record of these proceedings concentrated specifically on the health effects caused by the coarse fraction of PM10 pollution. See Mary Ellen Gordian et al., "Particulate Air Pollution and Respiratory Disease in Anchor-

age, Alaska," 104 *Envtl. Health Persp.* 290 (1996) (studying volcanic ash); Brockton J. Hefflin et al., "Surveillance for Dust Storms and Respiratory Diseases in Washington State, 1991," 49 *Archives of Env'tl. Health* 170 (1994) (studying fugitive dust). In addition, the record contains at least nine multivariate analyses finding statistically significant relation-

ships with health effects for both PM2.5 and PM10, suggesting that the portion of PM10 pollution unaccounted for by PM2.5 (i.e., coarse particles) explains some of the observed adverse health effects. In other words, because regression analysis holds the PM2.5 component constant, the PM10 effect recognized in these equations actually evidences results from coarse particulate pollution. To be sure, petitioners have pointed to some evidence to the contrary. But given that our review is limited to "ascertaining that the choices made by the Administrator were reasonable and supported by the record," and does not include "judg[ing] the merits of competing expert views," *Lead Industries*, 647 F.2d at 1160, we find ample support for EPA's decision to regulate coarse particulate pollution above the 1987 levels.

Having found independent health consequences from coarse particulate pollution, EPA nevertheless decided to regulate the coarse fraction of PM10 indirectly, using PM10 (which includes both coarse and fine PM) as a "surrogate for coarse fraction particles." PM Final Rule, 62 Fed. Reg. at 38,668/2. While recognizing that PM10-2.5 would have served as a satisfactory coarse particle indicator, EPA offers three justifications for its decision to use PM10 instead: (1) Both the Gordian and Hefflin studies used PM10, not PM10-2.5, as the variable in their models, (2) the PM10 standards will work in conjunction with the PM2.5 standards by regulating the portion of particulate pollution not regulated by the PM2.5 standards, and (3) a nationwide monitoring program for PM10 already exists. We find none of these explanations persuasive.

As to the first argument, while acknowledging that the indicator used in the studies captures both coarse and fine particles, EPA nevertheless maintains that PM10 is an effective indicator for the regulation of coarse particulate pollu-

tion. "Adopting the indicator used in the studies," the Agency says, "increases the likelihood that the level selected will result in the health protections predicted." But as EPA's own staff paper suggests, PM10 is "inherently confounded" by the presence of PM2.5 particles, meaning that any regulation of PM10 pollution will include both coarse and fine particles. See PM Staff Paper at V-59. Using PM10 as the coarse particle indicator, instead of PM10-2.5, will thus regulate more than just the coarse fraction of PM10, and the amount of coarse particulate pollution permitted will depend (quite arbitrarily) on the amount of PM2.5 pollution in the air. For example, assuming the 50 microgram annual PM10 level adopted by the Agency and a region with an annual PM2.5 pollution level of 15 micrograms, the PM10 indicator would prohibit coarse particulate (PM10-2.5) pollution from exceeding 35 micrograms. But in an area with only 5 micrograms of PM2.5 pollution, the NAAQS would permit coarse particulate pollution to reach as high as 45 micrograms.

EPA's second argument--that the PM10 standard will work in conjunction with the PM2.5 standard--suffers from the same deficiency. Accepting EPA's finding of "profound physicochemical differences" between coarse and fine PM, PM Staff Paper at V-59, such that each requires independent regulation, we cannot discern exactly how a PM10 standard, instead of a PM10-2.5 standard, will work alongside a PM2.5

standard to regulate only the coarse fraction of PM10. EPA provides no explanation to aid us in understanding its decision. In fact, as the example above indicates, it is the very presence of a separate PM2.5 standard that makes retention of the PM10 indicator arbitrary and capricious. Far from working in conjunction to regulate coarse particles, PM10 and PM2.5 indicators, when used together, lead to "double regulation" of the PM2.5 component of PM10 and potential underregulation of the PM10-2.5 component since the amount of PM10-2.5 permitted will always depend on the amount of PM2.5 in the air.

EPA's final argument is pragmatic. It maintains that PM10 is a better indicator than PM10-2.5 for coarse particulate pollution because a nationwide monitoring program for PM10

already exists. But as EPA acknowledges elsewhere in its brief, NRDC bars EPA from considering factors unrelated to public health in setting air quality standards. Echoing our decision in Vinyl Chloride, NRDC held that "the Administrator may not consider cost and technological feasibility in determining what is 'safe'; such a determination 'must be based solely upon the risk to health.'" NRDC, 902 F.2d at 973 (quoting Vinyl Chloride, 824 F.2d 1146, 1166 (D.C. Cir. 1990) (in banc)); see also American Petroleum Inst. v. Costle, 665 F.2d 1176, 1185 (D.C. Cir. 1981); Lead Industries, 647 F.2d at 1148-55. The administrative convenience of using PM10 cannot justify choosing an indicator poorly matched to the relevant pollution agent.

In view of our conclusion that PM10 amounts to an arbitrary indicator for coarse particle pollution, we need not address petitioners' separate challenge to the PM10 levels or secondary standards. We note, however, that whatever levels the Agency ultimately selects for coarse particle pollution will need to comply with the requirements set forth in Part I of this opinion.

B. Fine Particles as "New Pollutant"

The Attorneys General of Ohio, Michigan, and West Virginia ("state petitioners") argue that EPA is regulating PM2.5 for the first time. Because they consider PM2.5 to be a "new pollutant," they argue that s 108 of the Clean Air Act requires EPA to conduct further research on PM2.5's health effects before listing it as a pollutant, to issue an air quality criteria document reflecting the latest science on the health effects of the pollutant, and to assist states by developing "data relating to the cost of installation and operation, energy requirements, emission reduction benefits, and environmental impact of the emission control technology." 42 U.S.C. s 7408(b)(1).

Although EPA never responds to this argument, five northeastern states (as respondent intervenors and amici) do. Pointing out that previous NAAQS have always included PM2.5, these attorneys general support the EPA's decision not to list PM2.5 separately as a new pollutant. We agree.

The state petitioners cannot escape the fact that the original standards for particulate pollution using Total Suspended Particulates (TSP) as indicator, as well as the 1987 NAAQS

that used PM10, included by definition every particle 2.5 micrometers and smaller. Moreover, in some areas fine particles often dominate PM10 pollution. See PM Staff Paper at V-63. By refining the NAAQS to focus on smaller particles that EPA found posed distinct threats to public health, EPA has done with these regulations exactly what we held it could do in 1987 when it made the change from Total Suspended Particulates to PM10. See NRDC, 902 F.2d at 965-66. EPA's decision to update the NAAQS to focus on PM2.5 merely continues a trend based on evolving science. It does not violate the provisions of s 108 of the Clean Air Act.

C. Failure to Identify a Biological Mechanism for Particulate Pollution's Relationship to Adverse Health Effects

Also challenging the establishment of a fine particle standard, non-state petitioners argue that EPA failed to explain the biological mechanism through which particulate pollution causes adverse health effects. Even if epidemiological studies show robust statistical relationships between pollution and health effects, they say, the absence of proof of causation--i.e., how particles actually interact with cells and organs to cause sickness and death--is fatal to the standard. We disagree.

To begin with, the statute itself requires no such proof. The Administrator may regulate air pollutants "emissions of which, in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. s 7408(a)(1)(A) (1994) (emphasis added). Moreover, this court has never required the type of explanation petitioners seek from EPA. In fact, we have expressly held that EPA's decision to adopt and set air quality standards need only be based on "reasonable extrapolations from some reliable evidence." NRDC v. Thomas, 805 F.2d 410, 432 (D.C. Cir. 1986). Indeed, were we to accept petitioners' view, EPA (or any agency for that matter) would be powerless to act whenever it first recognizes clear trends

of mortality or morbidity in areas dominated by a particular pathogen.

The numerous epidemiological studies appearing in this record, some of which EPA also used to support the 1987 NAAQS, easily satisfy the standard articulated in the statute and emphasized repeatedly in decisions of this court. Covering diverse geographic locations with widely varying mixes of air pollution, the studies found statistically significant relationships between air-borne particulates signified by a variety of indicators and adverse health effects. Given EPA's statutory mandate to establish standards based on "the latest scientific knowledge," 42 U.S.C. ss 7408(a)(2), 7409(d), the growing empirical evidence demonstrating a relationship between fine particle pollution and adverse health effects amply justifies establishment of new fine particle standards.

D. Visibility Effects

The Environmental Petitioners challenge the EPA's decision to set the secondary PM2.5 NAAQS at levels equivalent to the primary NAAQS. According to the petitioners, the EPA's failure to set the secondary NAAQS at more stringent

levels will result in "adverse visibility impacts" in parts of the country. In view of our conclusion in Part I, above, that the EPA has not adequately explained the principles upon which it relied in setting the levels in the NAAQS for PM, we need not reach the main thrust of the petitioners' challenge to the secondary NAAQS. On the other hand, the Environmental Petitioners have also raised a question of statutory interpretation, the resolution of which should assist the EPA if it revisits its decision to set the secondary PM2.5 NAAQS.

In the PM Final Rule, the EPA decided "to address the welfare effects of PM on visibility by setting secondary standards identical to the suite of PM2.5 primary standards, in conjunction with the establishment of a regional haze program under s 169A of the Act." PM Final Rule, 62 Fed. Reg. at 38,679/3. Section 169A "declares as a national goal the prevention ... and the remedying of any ... impairment of visibility in mandatory class I Federal areas ... result[ing] from manmade air pollution." 42 U.S.C. s 7491. Mandatory

class I areas include all international parks, and national parks and wilderness areas of a certain size. See 42 U.S.C. s 7472(a). The EPA concluded that reduction of PM2.5 levels in class I areas would benefit the surrounding areas as well because "the same haze that degrades visibility within or looking out from a national park also degrades visibility outside it." PM Final Rule, 62 Fed. Reg. at 38,682/1.

The Environmental Petitioners argue that s 109(b)(2), 42 U.S.C. s 7409(b)(2), requires the EPA to set secondary NAAQS at a level sufficient to eliminate all adverse visibility effects and that it leaves the EPA no discretion to decide that some visibility impairment is better remedied through another program. This argument must be wrong. For, as the EPA argues, the Congress required the EPA to implement a regional haze program specifically in order to address adverse visibility effects that persist in class I areas after attainment of the secondary NAAQS. See 42 U.S.C. s 7470(1) (purpose of this part of Clean Air Act is "to protect public ... welfare from any actual or potential adverse effect which ... may reasonably be anticipate[d] to occur ... notwithstanding attainment and maintenance of all [NAAQS]"). Accordingly, we conclude that the Congress did not intend the secondary NAAQS to eliminate all adverse visibility effects and, therefore, that the EPA acted within the scope of its authority in deciding to rely upon the regional haze program to mitigate some of the adverse visibility effects caused by PM2.5.

Conclusion

We remand the cases to EPA for further consideration of all standards at issue. We do not vacate the new ozone standards because the standard is unlikely to engender costly compliance activities in light of our determination that it cannot be enforced by virtue of Clean Air Act s 181(a), 42 U.S.C. s 7511(a). We vacate the challenged coarse particulate matter standards because EPA will have to develop different standards when it corrects the arbitrarily chosen PM10 indicator. As to the fine particulate matter standards,

we invite briefing on the question of remedy: possibilities include but are not limited to vacatur, non-vacatur subject to application to vacate, and non-vacatur.⁸ An order giving the briefing particulars will follow.

Because of the substantial investment of time this matter has required and the many unresolved issues bearing on application of whatever standards may emerge, this panel will in the interest of judicial economy retain jurisdiction over the cases following remand. See *Sierra Club v. Gorsuch*, 715 F.2d 653, 661 (D.C. Cir. 1983).

⁸Briefing should address the possibility that the previous particulate matter standard will spring back to life in response to our decision to vacate the new coarse particulate matter standard.

Tatel, Circuit Judge, dissenting from Part I:

The Clean Air Act has been on the books for decades, has been amended by Congress numerous times, and has been the subject of regular congressional oversight hearings. The Act has been parsed by this circuit no fewer than ten times in published opinions delineating EPA authority in the NAAQS-setting process. Yet this court now threatens to strike down section 109 of the Act as an unconstitutional delegation of congressional authority unless EPA can articulate an intelligible principle cabining its discretion. In doing so, the court ignores the last half-century of Supreme Court nondelegation jurisprudence, apparently viewing these permissive precedents as mere exceptions to the rule laid down 64 years ago in *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935). Because section 109's delegation of authority is

narrower and more principled than delegations the Supreme Court and this court have upheld since *Schechter Poultry*, and because the record in this case demonstrates that EPA's discretion was in fact cabined by section 109, I respectfully dissent.

Section 109 requires EPA to publish air quality standards "the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health." 42 U.S.C. s 7409(b)(1) (1994). Compare section 109 to the language of section 303 of the Communications Act of 1934, which gave the FCC authority to regulate broadcast licensing in the "public interest," and which the Supreme Court sustained in *National Broadcasting Co. v. United States*, 319 U.S. 190, 225-26 (1943). The FCC's general authority to issue regulations "as public convenience, interest, or necessity requires" was sustained in *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968). The Supreme Court has sustained equally broad delegations to other agencies, including the Price Administrator's authority to fix "fair and equitable" commodities prices, *Yakus v. United States*, 321 U.S. 414, 426-27 (1944), the Federal Power Commission's authority to determine "just and reasonable" rates,

FPC v. Hope Natural Gas Co., 320 U.S. 591, 600 (1944), the War Department's authority to recover "excessive profits" earned on military contracts, *Lichter v. United States*, 334 U.S. 742, 778-786 (1948), and the Attorney General's authority to regulate new drugs that pose an "imminent hazard to public safety," *Touby v. United States*, 500 U.S. 160, 165 (1991). See also *Milk Indus. Foundation v. Glickman*, 132 F.3d 1467, 1475 (D.C. Cir. 1998) (upholding delegation to Secretary of Agriculture to approve interstate compacts upon a finding of "compelling public interest").

Given this extensive Supreme Court precedent sustaining general congressional delegations, no wonder the First Circuit rejected a similar nondelegation challenge to the Clean Air Act's "requisite to protect the public health" language:

The power granted to EPA is not "unconfined and vagrant". [*Schechter Poultry*, 295 U.S. at 551 (Cardozo, J., concurring).] The Agency has been given a well defined task by Congress--to reduce pollution to levels "requisite to protect the public health", in the case of primary standards. The Clean Air Act outlines the approach to be followed by the Agency and describes in detail many of its powers.... Yet there are many benchmarks to guide the Agency and the courts in determining whether or not EPA is exceeding its powers, not the least of which is that the rationality of the means can be tested against goals capable of fairly precise definition in the language of science.

Administrative agencies are created by Congress because it is impossible for the Legislature to acquire sufficient information to manage each detail in the long process of extirpating the abuses identified by the legislation; the Agency must have flexibility to implement the congressional mandate. Therefore, although the delega-

tion to EPA was a broad one, ... we have little difficulty concluding that the delegation was not excessive.

South Terminal Corp. v. EPA, 504 F.2d 646, 677 (1st Cir. 1974).

I do not agree with my colleagues that International Union, UAW v. OSHA, 938 F.2d 1310 (D.C. Cir. 1991) ("Lockout/Tagout I"), requires a different result. That case remanded to OSHA for a more precise definition of section 3(8) of the Occupational Safety and Health Act, which granted the Agency authority to enact workplace safety standards "reasonably necessary or appropriate to provide safe or healthful employment or places of employment." *Id.* at 1316. The Clean Air Act does not delegate to EPA authority to do whatever is "reasonably necessary or appropriate" to protect public health. Instead, the statute directs the Agency to fashion standards that are "requisite" to protect the public health. In other words, EPA must set pollution standards at levels necessary to protect the public health, whether "reasonable" or not, whether "appropriate" or not.

Moreover, in setting standards "requisite to protect the public health" EPA discretion is not unlimited. The Clean Air Act directs EPA to base standards on "air quality criteria" that "accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities." 42 U.S.C. s 7408(a)(2); see *id.* s 7409(b)(1); see also *id.* s 7408(a)(2) (requiring air quality criteria, "to the extent practicable," to "include information on--(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant; (B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and (C) any known or anticipated adverse effects on welfare"). Indeed, the principles constraining EPA discretion are at least as specific as those this court sustained in *Lockout/Tagout II*, i.e., that OSHA must identify a "'significant' safety risk, to enact a safety standard that provides 'a high degree of worker protection'." *International Union, UAW v. OSHA*, 37 F.3d 665, 669 (D.C. Cir. 1994) ("*Lockout/Tagout II*"). By directing EPA to set NAAQS at levels "requisite"--

not reasonably requisite--to protect the public health with "an adequate margin of safety," the Clean Air Act tells EPA exactly the same thing, i.e., ensure a high degree of protection.

Although this court's opinion might lead one to think that section 109's language permitted EPA to exercise unfettered discretion in choosing NAAQS, the record shows that EPA actually adhered to a disciplined decisionmaking process constrained by the statute's directive to set standards "requisite to protect the public health" based on criteria reflecting the "latest scientific knowledge." To identify which health effects were "significant enough" to warrant protection, EPA fol-

lowed guidelines published by the American Thoracic Society. See National Ambient Air Quality Standards for Ozone: Proposed Decision, 61 Fed. Reg. 65,716, 65,722/1 (1996). It then set the ozone and fine particle standards within ranges recommended by CASAC, the independent scientific advisory committee created pursuant to section 109 of the Act. See 42 U.S.C. s 7409(d)(2).

CASAC must consist of at least one member of the National Academy of Sciences, one physician, and one person representing state air pollution control agencies. See id. s 7409(d)(2)(A). In this case, CASAC also included medical doctors, epidemiologists, toxicologists and environmental scientists from leading research universities and institutions throughout the country. EPA must explain any departures from CASAC's recommendations. See id. s 7607(d)(3). Bringing scientific methods to their evaluation of the Agency's Criteria Document and Staff Paper, CASAC provides an objective justification for the pollution standards the Agency selects. Cf. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 593 (1993) (" 'Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology today is what distinguishes science from other fields of human inquiry.' ") (citation omitted). Other federal agencies with rulemaking responsibilities in technical fields also rely heavily on the recommendations, policy advice, and critical review that scientific advisory committees provide. See, e.g., 21 U.S.C.

s 355(n) (describing scientific advisory panels for the Food and Drug Administration); 49 U.S.C. s 44912(c) (creating a scientific advisory panel for the Federal Aviation Administration).

Beginning with CASAC's ozone recommendations--not one member recommended going below .08 ppm--EPA gave two perfectly rational explanations for the level it selected. First, it set the annual level based on the different types of health effects observed above and below .08 ppm. Particularly below .08, the Agency determined, "[t]he most certain [ozone-]related effects, while judged to be adverse, are transient and reversible." National Ambient Air Quality Standards for Ozone, 62 Fed. Reg. 38,856, 38,868/2 (1997) (emphasis added). Characterizing this explanation as saying nothing more than that "lower exposure levels are associated with lower risk to public health," Maj. Op. at 10, my colleagues find the Agency's reasoning unintelligible. But EPA did not find simply that public health risks decrease at lower levels. Instead, it found that public health effects differ below .08 ppm, i.e., that they are "transient and reversible."

Second, EPA explained that the level should not be set below naturally occurring background ozone concentrations. The Agency selected .08 ppm because it found that "a 0.07 ppm level would be closer to peak background levels that infrequently occur in some areas due to nonanthropogenic sources of [ozone] precursors, and thus more likely to be inappropriately targeted in some areas on such sources." 62 Fed. Reg. at 38,868/3. Of course, any level of ozone pollution above background concentrations is closer to background levels than one just above it. See Maj. Op. at 11. But as I read EPA's explanation, the Agency found that peak back-

ground levels sometimes occur at .07 ppm, not at .08 ppm. Indeed, the data EPA provided in its "Responses to Significant Comments" show a range of background concentrations from a low of .042 ppm in Olympic National Park in Washington to a high of .075 ppm in Quachita National Forest in Arizona. No region registered background levels above .075 ppm. See U.S. Environmental Protection Agency, Responses to Significant Comments on the 1996 Proposed Rule on the

National Ambient Air Quality Standards for Ozone 94-96 (July 1997). In other words, by setting the annual standard at .08 rather than .07 ppm, EPA ensured that if a region surpasses the ozone standard, it will do so because of controllable human activity, not because of uncontrollable natural levels of ozone.

EPA offered an equally reasonable explanation for the fine particle pollution standard. Again limiting itself to the range approved by CASAC, EPA set the annual standard for PM2.5 pollution at the lowest level where it had confidence that the epidemiological evidence (filtered through peer-reviewed, published studies) displayed a statistically significant relationship between air pollution and adverse public health effects.

Recognizing that its decision must "accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health," 42 U.S.C. s 7408(a)(2), EPA focused on three studies in the record that displayed a statistically significant relationship between fine particle pollution and adverse health effects: Joel Schwartz et al., *Is Daily Mortality Associated Specifically with Fine Particles?*, 46 *J. Air & Waste Mgmt. Ass'n* 927 (1996); Joel Schwartz et al., *Acute Effects of Summer Air Pollution on Respiratory Symptom Reporting in Children*, 150 *Am. J. Respiratory & Critical Care Med.* 1234 (1994); and Douglas W. Dockery et al., *An Association between Air Pollution and Mortality in Six U.S. Cities*, 329 *New Eng. J. Med.* 1753 (1993). The Agency explained that "there is generally greatest statistical confidence in observed associations [between fine particle pollution and adverse health effects] for levels at and above the mean concentration [of pollution observed in the studies that showed a statistically significant relationship]." *National Ambient Air Quality Standards for Particulate Matter*, 62 *Fed. Reg.* 38,652, 38,676/1 n.42 (1997) (emphasis added). Allowing "an adequate margin of safety," EPA then set the annual fine particle standard just below the lowest mean pollution levels observed in those studies, at 15 Sg/m^3 . See *id.* at 38,676/1 ("An examination of the long-term means from the combined six city analyses of daily mortality [Schwartz et al. (1996)] and morbidity [Schwartz et al. (1994)],

together with those from studies in individual cities for which statistically significant PM-effects associations are reported ... finds mean concentrations ranging from about 16 to about 21 Sg/m^3"); *id.* at 38,676/2 ("[The EPA] Staff Paper assessment of the concentration-response results [from Dockery et al. (1993)], concluded that the evidence for increased risk was more apparent at annual concentrations at or above 15 Sg/m^3").

In a passage directly answering this court's concerns, see Maj. Op. at 11-12, the Staff Paper explained why the long-term mean served as a reasonable level for setting the fine particle NAAQS:

The mean (or median) concentration may serve as a reasonable cutpoint of increased PM health risk since at this point there is generally the greatest confidence (i.e., the smallest confidence intervals) in the association and the reported [relative risk] estimates. The mean concentration considered by staff as most informative to test implications of potential alternative concentration-response functions is the minimum mean concentration associated with a study or studies reporting statistically significant increases in risk across a number of study locations....

Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Review of National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information, at E-4 (1996) (emphasis added).

EPA thus did not, as my colleagues charge, arbitrarily pick points on the ozone and particulate pollution continua indistinguishable from any other. Instead, acting pursuant to section 109's direction that it establish standards that, based on the "latest scientific knowledge" are "requisite" to protect the public health with "an adequate margin of safety," and operating within ranges approved by CASAC, the Agency set the ozone level just above peak background concentrations where the most certain health effects are not transient and reversible, and the fine particle level at the lowest long-term

mean concentration observed in studies that showed a statistically significant relationship between fine particle pollution and adverse health effects. Whether EPA arbitrarily selected the studies it relied upon or drew mistaken conclusions from those studies (as petitioners argue), or whether EPA failed to live up to the principles it established for itself (as my colleagues believe, see Maj. Op. at 9-12), has nothing to do with our inquiry under the nondelegation doctrine. Those issues relate to whether the NAAQS are arbitrary and capricious. See *NRDC v. EPA*, 902 F.2d 962, 969, 971 (D.C. Cir. 1989). The Constitution requires that Congress articulate intelligible principles; Congress has done so here.

A final point. Unlike OSHA, which Lockout/Tagout I recognized has authority to reach into every workplace to dictate what is safe, to impose extensive civil and criminal penalties, and "to decide which firms will live and which will die," Lockout/Tagout I, 938 F.2d at 1318, EPA regulates primarily by setting standards for states to develop their own plans. See 42 U.S.C. s 7401(a)(3) (Congress finds "that air pollution prevention ... and air pollution control at its source is the primary responsibility of States and local governments."). Indeed, because states have three years to submit implementation plans, which are themselves subject to notice, comment, public hearing, and frequent renegotiation, we will not know for years precisely how the ozone and particle NAAQS will actually affect individual businesses. Only if a state fails to produce an acceptable plan can EPA terminate

federal highway funds or impose its own implementation plan. Because the Clean Air Act gives politically accountable state governments primary responsibility for determining how to distribute the burdens of pollution reduction and therefore how the NAAQS will affect specific industries and individual businesses, courts have less reason to second-guess the specificity of the congressional delegation. Moreover, if the states disagree with the standards EPA has set, they have 535 representatives in Congress to turn to for help. In fact, legislation to overturn the very NAAQS at issue in this case was introduced in the last Congress. See H.R. 1984, 105th Cong. (1997) ("A bill to provide for a four-year moratorium on

the establishment of new standards for ozone and fine particulate matter under the Clean Air Act, pending further implementation of the Clean Air Act Amendments of 1990, additional review and air quality monitoring under that Act."); S. 1084, 105th Cong. (1997) ("A bill to establish a research and monitoring program for the national ambient air quality standards for ozone and particulate matter and to reinstate the original standards under the Clean Air Act, and for other purposes.").

Original: 2009

Bush

cc;

Smith

Tyrrell

Sandusky

Legal

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 98-1497

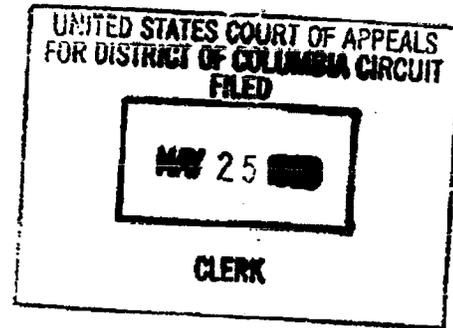
September Term, 1998

State of Michigan, Michigan Department of
Environmental Quality and State of West Virginia,
Division of Environmental Protection,
Petitioners

v.

Environmental Protection Agency,
Respondent

New England Council, Inc., et al.,
Intervenors



Consolidated with 98-1499, 98-1500, 98-1501
98-1502, 98-1504, 98-1518, 98-1556, 98-1567,
98-1571, 98-1573, 98-1585, 98-1588, 98-1590,
98-1596, 98-1598, 98-1601, 98-1602, 98-1608,
98-1609, 98-1611, 98-1612, 98-1615, 98-1616,
98-1617, 98-1618, 98-1619, 98-1621, 99-1070,
99-1093

99 JUN -9 PM 3: 04
RECEIVED
CLERK

BEFORE: Williams, Ginsburg, and Rogers, Circuit Judges

ORDER

Upon consideration of the motion for partial stay, the responses thereto, and the replies, it is

ORDERED that the motion for partial stay of the submission of the revised State implementation Plans until April 27, 2000, be granted in part. The submission of the revised State Implementation Plans is stayed pending further order of the court.

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 98-1497

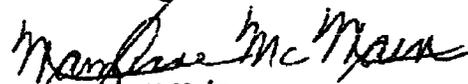
September Term, 1998

Petitioners have satisfied the stringent standards required for a stay. See *Washington Metropolitan Area Transit Commission v. Holiday Tours, Inc.*, 559 F.2d 841, 843 (D.C. Cir. 1977); *D.C. Circuit Handbook of Practice and Internal Procedures* 60-61 (1997).

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

BY:


MaryAnne McMain
Deputy Clerk/LD

THE GENERAL ASSEMBLY OF PENNSYLVANIA Original: 2009

Bush

cc:

Smith
Tyrrell
Sandusky
Legal

HOUSE RESOLUTION

No. 182

Session of
1999

INTRODUCED BY S. H. SMITH, GEORGE, DeWEESE, CALTAGIRONE, DALEY, DEMPSEY, COSTA, FARGO, GEIST, GIGLIOTTI, HALUSKA, HERSHEY, LEH, LESCOVITZ, McCALL, McNAUGHTON, R. MILLER, ORIE, PESCI, READSHAW, SAYLOR, SEMMEL, SHANER, SNYDER, STAIRS, STERN, TANGRETTI, E. Z. TAYLOR, WILT AND YOUNGBLOOD, MAY 11, 1999

REFERRED TO COMMITTEE ON RULES, MAY 11, 1999

A CONCURRENT RESOLUTION

1 Encouraging regional fairness and a level playing field among
2 states in the timing and adoption of electric utility
3 emission control requirements for the reduction of smog;
4 promoting fair interstate competition among electric
5 utilities subject to Environmental Protection Agency
6 regulations for the reduction of electric utility nitrogen
7 oxide emissions; and requesting the Department of
8 Environmental Protection to revise certain proposed
9 regulations to achieve these purposes.

99 JUN -9 PM 3:04
RECEIVED
COMMITTEE ON RULES

10 WHEREAS, Natural and manmade emissions of nitrogen oxides
11 (NOx) and volatile organic compounds contribute to
12 concentrations of ozone at levels exceeding the National Ambient
13 Air Quality Standards (NAAQS) for ozone in many areas of the
14 Commonwealth of Pennsylvania; and

15 WHEREAS, Pennsylvania is affected by ozone created by
16 emissions within its own borders and by the transport of ozone
17 and its precursor emissions from other states; and

18 WHEREAS, Pennsylvania has been a leader of national and
19 regional efforts to reduce the interstate transport of ozone and
20 other air pollutants in order to achieve a level economic and

1 environmental playing field with other states in the control of
2 air pollution; and

3 WHEREAS, Unilateral emission reductions by Pennsylvania
4 sources would not meet air quality objectives and would
5 undermine Pennsylvania employment and industrial
6 competitiveness; and

7 WHEREAS, Electric utilities in Pennsylvania have reduced
8 emissions of NOx by approximately 45% from 1990 levels pursuant
9 to requirements in the Federal Clean Air Act Amendments of 1990
10 for the installation of Reasonably Available Control Technology
11 (RACT) in compliance with regulations promulgated by the former
12 Department of Environmental Resources (24 Pa.B. 459, January 15,
13 1994); and

14 WHEREAS, Pennsylvania and ten other member states of the
15 Northeast Ozone Transport Commission (OTC) established by the
16 Clean Air Act Amendments of 1990 agreed to a schedule of further
17 NOx emission reductions for electric utilities pursuant to a
18 Memorandum of Understanding dated September 27, 1994; and

19 WHEREAS, The OTC Memorandum of Understanding contemplated the
20 installation of RACT by electric utilities in the 12 states of
21 the Northeast Ozone Transport Region established by the Clean
22 Air Act Amendment of 1990 followed by additional Phase II
23 emission reductions commencing in May 1999 and by further Phase
24 III emission reductions commencing in May 2003; and

25 WHEREAS, Comparable reduction timetables for electric utility
26 emissions have not yet been established by states outside of the
27 Northeast Ozone Transport Region; and

28 WHEREAS, The Department of Environmental Protection
29 promulgated regulations for the implementation of Phase II
30 emission reductions by Pennsylvania electric utilities (27 Pa.B.

1 5683, November 1, 1997), requiring emission reductions of 55% to
2 65% from 1990 levels, depending upon plant location, commencing
3 May 1, 1999; and

4 WHEREAS, Similar Phase II regulations promulgated by
5 neighboring states of the Northeast OTC have been challenged
6 judicially and have been remanded to state environmental
7 agencies, with uncertain consequences for their timely
8 implementation; and

9 WHEREAS, Pennsylvania together with 36 other eastern states
10 and the District of Columbia participated in the Ozone Transport
11 Assessment Group (OTAG) process organized by the United States
12 Environmental Protection Agency (EPA) from 1995 to 1997 in an
13 effort to determine the causes and extent of ozone transport
14 contributing to nonattainment of the NAAQS for ozone in
15 Pennsylvania and other states; and

16 WHEREAS, Based upon the findings of the OTAG process and its
17 own analyses, the EPA has promulgated a regional ozone transport
18 rule (the SIP Call) for the control of electric utility and
19 industrial boiler NOx emissions in a 22-state region including
20 Pennsylvania, other states in the Northeast Ozone Transport
21 Region (except Maine, New Hampshire and Vermont and several
22 states located to the west and south of Pennsylvania that are
23 not subject to the OTC Memorandum of Understanding (63 FR 57356,
24 October 27, 1998); and

25 WHEREAS, The EPA has determined that emissions from electric
26 utilities and other major stationary sources in the 22 states
27 subject to the SIP Call, including Pennsylvania, contribute
28 significantly to nonattainment of the NAAQS for ozone in
29 Pennsylvania and other states and has prescribed a schedule of
30 emission reductions for industries in these states commencing

1 May 1, 2003; and

2 WHEREAS, The OTC has determined that the SIP Call would
3 restrict electric utility emissions of NOx in the 22-state
4 region to a level and on a timetable comparable to that required
5 by Phase III of the OTC Memorandum of Understanding; and

6 WHEREAS, Several upwind states and industries have petitioned
7 the United States Court of Appeals for the District of Columbia
8 Circuit for judicial review of the EPA's SIP Call, have
9 petitioned the court for a stay and extension of certain
10 regulatory deadlines under the SIP Call and have offered
11 emission reduction proposals different than those contained in
12 the SIP Call; and

13 WHEREAS, Final decisions on the merits of these petitions are
14 not anticipated prior to the year 2000, with uncertain
15 implications for the timely implementation in the SIP Call; and

16 WHEREAS, The EPA has proposed to implement Federal
17 Implementation Plans in states subject to the SIP Call that do
18 not submit approvable SIP revisions by September 30, 1999 (63 FR
19 56394, October 21, 1998); and

20 WHEREAS, On August 14, 1997, Governor Ridge filed a petition
21 with the Administrator of the EPA pursuant to section 126 of the
22 Clean Air Act seeking abatement of emissions in certain upwind
23 states determined by OTAG and by independent analyses to
24 contribute to nonattainment of the NAAQS for ozone in
25 Pennsylvania; and

26 WHEREAS, On April 30, 1999, the EPA took final action on
27 several section 126 petitions that had been filed by
28 northeastern states and determined that six of the eight
29 petitions, including that filed by Pennsylvania, were partially
30 approvable based on technical considerations and that sources in

1 19 states and the District of Columbia significantly contribute
2 to nonattainment or interfere with the ability of states to
3 maintain clean air, in one or more of the petitioning states;
4 and

5 WHEREAS, The EPA has deferred fully granting the relief
6 sought in Pennsylvania's section 126 petition in order to give
7 affected states an opportunity to comply with the NOx SIP Call,
8 including the submission of State Implementation Plans in
9 September 1999; and

10 WHEREAS, Implementation of the SIP Call on a consistent
11 timetable within a 22-state region is necessary for attainment
12 of the NAAQS for ozone in Pennsylvania, to the benefit of our
13 public health and environment, and would help establish a level
14 environmental playing field for industries in all states subject
15 to the rule; and

16 WHEREAS, The Department of Environmental Protection has
17 proposed regulations to implement the SIP Call (29 Pa.B. 1319,
18 March 6, 1999), adopting with minor modifications the SIP Call
19 requirements promulgated by the EPA on October 27, 1998; and

20 WHEREAS, The electric utility NOx emission reductions called
21 for by Phase III of the OTC Memorandum of Understanding would be
22 duplicative of those required by the SIP Call but would not be
23 applicable to all 22 states in the geographic region determined
24 by the EPA to contribute to nonattainment of the NAAQS for ozone
25 in Pennsylvania; and

26 WHEREAS, The Electricity Generation Customer Choice and
27 Competition Act (Act 138 of 1996) was signed by Governor Ridge
28 on December 3, 1996, setting in motion the restructuring of this
29 Commonwealth's electric utility industry and establishing
30 standards and procedures to create direct access by retail

1 customers to the competitive market for the generation of
2 electricity, while maintaining the safety and reliability of the
3 electric system; and

4 WHEREAS, Fair competition in the deregulated electric market
5 assumes the existence of a level playing field in which electric
6 generation suppliers can compete equally; and

7 WHEREAS, Fair competition in a restructured electric supply
8 market would be impeded by programs or policies that place in-
9 State electric generation suppliers at a competitive
10 disadvantage to out-of-State generators; and

11 WHEREAS, In view of the interstate nature of the electric
12 power market, the interests of Pennsylvania electric consumers
13 and the environment are best served by an equitable level
14 playing field among adjacent states for the imposition of
15 environmental control requirements exceeding those called for by
16 Phase II of the OTC Memorandum of Understanding; and

17 WHEREAS, The emission reductions for electric utilities in
18 the Northeast contemplated by Phase III of the OTC Memorandum of
19 Understanding apply to the same pollutant from the same category
20 of sources as EPA's SIP Call, and the goal of Phase III of the
21 Memorandum of Understanding would be better served by
22 simultaneous and comparable emission reductions throughout the
23 broader 22-state region subject to the SIP Call; therefore be it

24 RESOLVED (the Senate concurring), That the General Assembly
25 of the Commonwealth of Pennsylvania urge that in order to
26 protect the public health of Pennsylvania's citizens,
27 particularly in the Philadelphia severe ozone nonattainment
28 area, the 22-state reductions in NOx emissions described in the
29 EPA's Regional Ozone Transport Rulemaking (63 FR 57356, October
30 27, 1998) must be achieved; and be it further

1 RESOLVED, That compliance with the requirements of the final
2 SIP Call, as promulgated or subsequently revised by the EPA, be
3 considered by the Department of Environmental Protection for
4 regulatory purposes as being in fulfillment of Pennsylvania's
5 remaining obligations under the OTC Memorandum of Understanding;
6 and be it further

7 RESOLVED, That the Department of Environmental Protection
8 revise its proposed regulations implementing the SIP Call (29
9 Pa.B. 1319, March 6, 1999) to give effect to the purpose and
10 intent of this resolution, namely, to ensure that major fossil-
11 fired steam electric generating units in Pennsylvania are not
12 subject to emission control requirements more stringent than, or
13 on a compliance schedule sooner than, those required by Phase II
14 of the OTC Memorandum of Understanding, until and unless similar
15 generating units in each state adjacent to Pennsylvania are
16 subject to a comparable schedule of equivalent emission control
17 requirements established in approved State Implementation Plans
18 adopted in conformance with:

- 19 (1) the EPA's Regional Ozone Transport Rulemaking;
20 (2) the final Federal Implementation Plans promulgated
21 in accordance with the EPA's proposed Ozone Transport Federal
22 Implementation Plan; or
23 (3) a final rulemaking granting the relief requested in
24 the petition filed by Pennsylvania on August 14, 1997,
25 pursuant to section 126 of the Clean Air Act;

26 and be it further

27 RESOLVED, That copies of this resolution be transmitted to
28 Governor Thomas J. Ridge, the Secretary of the Pennsylvania
29 Department of Environmental Protection, the Chairman, members
30 and Executive Director of the Pennsylvania Public Utility

1 Commission, the Administrator of the Environmental Protection
2 Agency, the Executive Director of the Northeast Ozone Transport
3 Commission and each member of the United States Congress from
4 Pennsylvania.

Original: 2009

Bush

cc: Smith

tyrrel

Sandusky

Legal



**United Mine Workers
of America**

**Pennsylvania Coal
Association**

Phone: 724-583-1818

Phone: 717-233-7900

TO: House Members of the Pennsylvania Legislative Coal Caucus

**FROM: Rod Muchnok *RM*
United Mine Workers of America**

**George Ellis *GE*
Pennsylvania Coal Association**

DATE: June 4, 1999

RE: House Resolution 182

RECEIVED
99 JUN 9 PM 3:05
INDUSTRIAL RELATIONS
COMMISSION

We are writing to convey our support for HR182, which is currently in the House Rules Committee and may be considered by the full House prior to the summer adjournment.

HR182 would encourage DEP to revise its latest proposed rulemaking that would further limit emissions of nitrogen oxides (NOx) from electric generating units, primarily coal-fired power plants, to ensure that Pennsylvania's generating facilities can compete on a level playing field with comparable facilities operating in adjacent states.

The Department's rulemaking is designed to meet the requirements of EPA's NOx State Implementation Plan (SIP) Call. The SIP Call directs 22 states east of the Mississippi River to submit state implementation plans to EPA by September of this year outlining how they plan to reduce NOx emissions. Actual implementation would begin in 2003 and would replace the existing NOx allowance requirements.

Coal-fired power plants would be among the sources primarily impacted by this regulation. Since the Pennsylvania steam coal market is by far the largest market for Pennsylvania coal - 43% of Pennsylvania's 1997 bituminous coal production went to power plants located in Pennsylvania and coal was used to generate 58% of Pennsylvania's total electric output - PCA and the UMWA are extremely concerned about Pennsylvania proceeding alone in implementing the regulation.

Our major concern is its potential impact on the competitiveness of Pennsylvania-mined coal and its continued viability as a source of electricity in the Pennsylvania steam coal market. Pennsylvania's recent restructuring of its electric utility industry has resulted in a competitive

market for the generation of electricity, placing a premium on maintaining lower fuel and operating costs. In the interest of fairness, it is vital that the standards and deadlines for any regional air quality regulatory program be equitable among the states to ensure the existence of a level-playing field on which the various fuel options can compete equally in this deregulated market.

It is this point - whether Pennsylvania should pursue unilateral reductions in NO_x emissions or proceed in "lockstep" with adjoining states - that is the focus of HR182.

While Pennsylvania has been a regional and national leader in efforts to improve air quality, other states have not been as diligent.

Several states have challenged the SIP Call rule in the D.C. Circuit Court; others have developed tailored, state-specific programs calling for smaller emission reductions over different timetables.

Two recent court rulings underscore the need for the "lockstep" requirements of HR182, to ensure that Pennsylvania reduces ozone precursor emissions in the same amounts and on the same timetable, as required by EPA in other states.

The first ruling, issued by the Court of Appeals for the District of Columbia, struck down EPA's proposed rules to control ground level ozone and particulate matter (PM) emissions. This decision, which raised constitutional questions about EPA's clean air authority could have far-reaching effects, delaying a host of regulations - including the SIP Call - not specifically addressed by the litigation.

The court remanded EPA's rule to regulate PM, saying the agency is "precluded from enforcing" its rule to regulate ozone under the new eight-hour standard. It is this same eight-hour standard rendered unenforceable by the court upon which EPA's SIP Call relies on for measuring pollutants.

Indeed, following this decision the U.S. Court of Appeals hearing the upwind states' challenge to the SIP Call, granted the states' petition and indefinitely stayed the SIP Call filing deadline. As a result, the SIP Call could be delayed at least another year or two as these cases move through the courts.

These uncertainties dictate that Pennsylvania DEP's regulations implementing the SIP Call should be structured to avoid the risk of unilateral emission reductions in Pennsylvania that are not matched by other states. The language suggested by HR182 would provide the Commonwealth with appropriate flexibility to adapt to changing legal requirements imposed by EPA and the federal courts.

Severe harm could result to the Pennsylvania coal and electric utilities if the Commonwealth unilaterally implements these regulations. Thousands of mining and utility jobs would be at risk in the newly-deregulated electric market, and Pennsylvania utilities would face an even steeper competitive disadvantage relative to utilities in other states to the west and south.

A multi-industry study (H. Zinder Associates and J.E. Cichanowicz, Inc., "Evaluation of Alternative NOx Emission Caps in the 22-State SIP Region" June 18, 1998) commissioned for EPA's rulemaking estimated that Pennsylvania utilities would be required to invest \$1.2 billion in control equipment to comply with the 0.15 lb. emission limit, raising capital and operating costs by \$241 million annually relative to Clean Air Act requirements. Because of our reliance on coal-fired generation, Pennsylvania ranks third highest among the 22 states in capital costs to comply with the SIP Call. Most of these costs would be incurred for retrofitting coal-fired generating capacity with Selective Catalytic Reduction (SCR) technology. Given the premium that our deregulated electric market places on holding down the cost/kwh, unilateral action would be a prescription for the premature retirement of coal-fired power plants in Pennsylvania.

Pennsylvania coal is already feeling the impact from the NOx requirements currently in place, which require a 65% reduction below 1990 levels during the ozone season - May through September. According to different forecasts, utilities in 11 northeastern states - including Pennsylvania - will have to cut their coal burn by 5-10 million tons this summer to comply with the requirement.

Perhaps most importantly, emission reductions by Pennsylvania sources alone will not be sufficient to meet National Ambient Air Quality Standards (NAAQS). This was demonstrated by air quality modeling which found that generating units in 22 of the 37 states significantly contributed to ozone nonattainment and will prevent attainment and maintenance of the ozone NAAQS. It was reinforced when EPA approved six of the eight state Section 126 petitions, including Pennsylvania's, finding that sources in 19 states and the District of Columbia significantly contribute to nonattainment, or interfere with the ability of states to maintain clean air, in one or more of the petitioning states.

Given all these factors, PCA and the UMWA firmly believes that Pennsylvania should move in concert with adjoining states in implementing the SIP Call. The Commonwealth has little to gain but much to lose by acting alone.

HR182 recommends that this rulemaking not be implemented unless and until generating units in surrounding states are subject to the same level and timing of emission reductions as required by EPA.

It calls on DEP to include language in its regulatory package that would insure that Pennsylvania electric utilities are subject to the same level and timing of emission reductions as required by EPA in adjoining states.

Unless Pennsylvania marches in lockstep with its neighboring states in pursuit of regional ozone attainment, it will seriously undermine the competitiveness of Pennsylvania-mined coal in the deregulated electric generating market. Competition assumes the existence of a level playing field. We hope that the playing field will not be tilted against coal usage.

Thank you for your consideration of our request.

Original: 2009

Bush

cc: Smith

Tyrrell

Sandusky

Legal

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Original in file 99 JUN -4 AM 8:50

SOUTHEAST

INDEPENDENT REGULATORY
REVIEW COMMISSION



WORKING GROUP *FINAL REPORT*

January 16, 1997

Kim Garner

RECEIVED

From: James M. Smith
Sent: Wednesday, May 26, 1999 3:27 PM
To: IRRC
Cc: Charles A. Tyrrell, Jr.; Mary S. Wyatte; Richard M. Sandusky
Subject: FW: Stay of SIP Revisions for NOx SIP Call

99 MAY 26 PM 3:57

Original: 2009
Bush
cc:

Smith
Tyrrell
Sandusky
Legal

FYI on reg #2009

-----Original Message-----

From: Doug Biden [SMTP:dbiden@paea.org]
Sent: Wednesday, May 26, 1999 3:29 PM
To: Jim Smith (E-mail)
Cc: Jim Cunningham
Subject: FW: Stay of SIP Revisions for NOx SIP Call

JIM: here is more news on the ozone issue. the U.S. Court of Appeal has now stayed the SIP call rule pending further order of the court.
doug

> debra.jezouit@bakerbotts.com on 05/26/99 11:04:58 AM
>
> To: ajoy@dairynet.com, akhanwalkar@papl.com, Amy.Wright@DPLINC.com,
> Athan.Vinolus@DPLINC.com, bauerk@mail.ci.tlh.fl.us,
> bealsg@coned.com,
> ben-carmine@hlp.com, bhicks@ouc.com,
> bob_bergstrom@email.fpl.com,
> coatest@nimo.com, CurtisJ@mail.ci.tlh.fl.us, cvmathai@apsc.com,
> cwarner@aecc.com, derek-furstenwerth@reliantenergy.com,
> dlavamw@apsc.com,
> FSHEL@city.lakeland.net, giannb@jea.com, gvanhe@wpsr.com,
> hmf@dairynet.com, holzhauer@nimo.com, jmikula@apsc.com,
> jmutch@entergy.com, jonnasye@gru.com, jrf4@pge.com,
> kappri@jea.com,
> kathleenstanden@alliant-energy.com, mbrownst@pseg.com,
> mglover@entergy.com, miakiszj@nimo.com, Michelle F
> Duncan/DLC@DLC,
> mroth@GREnergy.com, ndharmarajan@csw.com,
> patricia.b.leaf@nspco.com,
> poppm@coned.com, Randy.Burkett@DPLINC.com,
> riccobonodl@lilco.com,
> rtabauve@email.fpl.com, rmicko@entergy.com,
> robbie.laborde@cleco.com,
> Robert W Orchowski/DLC@DLC, rsv2@pge.com, rtclemmer@papl.com,
> Samuel.Wolfe@pseg.com, Sharon R Stubbs/DLC@DLC,
> steveguyer@alliant-energy.com, susan.schumann@fmpa.com,
> teetzrd@lilco.com,
> Vito_Giarrusso@fpl.com
> cc:
> Subject: Stay of SIP Revisions for NOx SIP Call
>
>
>
> On May 25, 1999, the U.S. Court of Appeals for the D.C. Circuit
> issued a
> partial stay in the NOx SIP Call rule. Under the Court's order,



Windows NT Printer Test Page

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99 MAY 26 PM 3:57

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REVIEW DIVISION

Congratulations!

If you can read this information, you have correctly installed your HP LaserJet III on IRRCPDCNT4-01.

The information below describes your printer driver and port settings.

Machine Name: IRRCPDCNT4-01
Printer name: \\IRRCPDCNT4-01\LETTERHEAD
Printer model: HP LaserJet III
Color support: No
Port name(s): 164.156.5.9
Data format: RAW
Share Name: LETTERHEAD
Location:
Comment:
Driver name: RASDD.DLL
Data file: PCL5MS.DLL
Config file: RASDDUI.DLL
Driver version: 4.01
Environment: Windows NT x86

Files used by this driver:

C:\WINNT\System32\spool\DRIVERS\W32X86\2\PCL5MS.DLL	(4.00)
C:\WINNT\System32\spool\DRIVERS\W32X86\2\RASDD.DLL	(4.00)
C:\WINNT\System32\spool\DRIVERS\W32X86\2\RASDDUI.DLL	(4.00)
C:\WINNT\System32\spool\DRIVERS\W32X86\2\RASDDUI.HLP	

This is the end of the printer test page.

Kim Garner

From: James M. Smith
Sent: Tuesday, May 25, 1999 3:38 PM
To: IIRC
Subject: FW: Remand of the New Ozone and PM NAAQS

RECEIVED

99 MAY 25 PM 3:55

REVIEW COMMISSION

Re: #2009 - EQB - Interstate Ozone Transport Reduction

-----Original Message-----

From: Doug Biden [SMTP:dbiden@paea.org]
Sent: Tuesday, May 25, 1999 3:10 PM
To: 'jims@iirc.state.pa.us'
Subject: FW: Remand of the New Ozone and PM NAAQS

Original: 2009
Bush
cc: Smith
Tyrrell
Sandusky
Legal

JIM: here is something on the court case. let me know if you need any more material. doug

> -----Original Message-----

> **From:** Michelle_F_Duncan@dlc.dqe.com
> [SMTP:Michelle_F_Duncan@dlc.dqe.com]
> **Sent:** Monday, May 17, 1999 7:00 AM
> **To:** dbiden@paea.org; jpbatug@papl.com; laboyer@papl.com;
> troberts@gpu.com; cmitchell@gpu.com;
> Raymond_L_Evans@FirstEnergyCorp.com; jhammer@alleghenypower.com;
> jkostik@alleghenypower.com; cou@peco-energy.com
> **Subject:** Remand of the New Ozone and PM NAAQS

>
>
>
> Attached FYI.
> M

> **Re: Remand of the Revised Ozone and Particulate Matter NAAQS**

> **On May 14, 1999, the U.S. Court of Appeals for the D.C.**
> **Circuit**
> **remanded the revised ozone and particulate matter (PM) national**
> **ambient air quality standards (NAAQS) back to the Agency**
> **(American**
> **Trucking Association, Inc., et al. v. EPA, No. 97-1440 (and**
> **consolidated cases) for further consideration.**

> **In its decision, the Court held the following:**

> **1. The construction of the Clean Air Act (CAA) on which EPA**
> **relied**
> **in promulgating the primary and secondary ozone and PM NAAQS**
> **effects**
> **an unconstitutional delegation of legislative power. The Court**
> **found**
> **that, because the only concentration for ozone and PM that is**
> **utterly**
> **risk-free is a standard set at zero, EPA must develop a**
> **construction**
> **of the CAA that will allow it to identify determinate, binding**
> **principles to justify setting the NAAQS at a higher level.**
> **Therefore,**
> **the Court remanded the ozone and PM NAAQS cases to the Agency for**
> **development of a construction of the CAA that satisfies this**

- > requirement. The Court explains that, if EPA concludes there are
- > no
- > principles available under the current CAA, the Agency can report
- > that
- > to Congress, along with the rationales the Agency has for the
- > NAAQS
- > levels it chose, and request legislation to ratify its choice.
- >
- > The Court's decision here suggests that the Court also may
- > remand
- > the NOx SIP Call rule. Under the NOx SIP Call, EPA identified
- > several
- > criteria for determining "significant contribution" but never
- > articulated how it applied the criteria to find that certain
- > States
- > were significantly contributing to ozone transport in downwind
- > States.
- > This is similar to what EPA did in the NAAQS rules, where EPA
- > identified several criteria but did not develop binding,
- > determinate
- > principles to identify how such criteria should be applied.
- >
- > 2. The Court rejected petitioners' claims that (a) EPA may
- > consider costs in setting the NAAQS; (b) EPA should have
- > considered
- > the environmental damage likely to result from the NAAQS'
- > financial
- > impact on the Abandoned Mine Reclamation Fund; (c) EPA should
- > have
- > prepared the functional equivalent of an Environmental Impact
- > Statement pursuant to the National Environmental Policy Act
- > ("NEPA")
- > and met other requirements of NEPA; (d) EPA should have prepared
- > a
- > Regulatory Impact Statement and chosen the least burdensome from
- > a
- > range of alternative permissible NAAQS pursuant to the Unfunded
- > Mandates Reform Act ("UMRA"); and (e) EPA improperly certified
- > under
- > the Regulatory Flexibility Act ("RFA") that the revised NAAQS
- > would
- > not have a significant impact on a substantial number of small
- > entities.
- >
- > 3. EPA has authority to revise the primary and secondary
- > ozone
- > NAAQS but must enforce the revised primary ozone NAAQS in
- > accordance
- > with the classifications, attainment dates, and control measures
- > set
- > out in Subpart 2 of Part D of the CAA (Section 181). The Court
- > also
- > concluded that EPA may not require a State to comply with a
- > revised
- > secondary ozone NAAQS in any area that has yet to attain the 0.12
- > ppm
- > primary standard.
- >
- > 4. EPA must consider the possible health benefits of ozone in
- > setting the revised NAAQS.
- >
- > 5. EPA's choice of PM10 as the indicator for coarse

> particulate
> matter was arbitrary and capricious in light of its establishment
> of
> the new PM2.5 standard.
>
> 6. The Court rejected the following petitioners' claims
> regarding
> PM: (a) that EPA must treat PM2.5 as a new pollutant; (b) that
> EPA is
> required to identify a biological mechanism explaining PM's
> harmful
> effects; and (c) that the CAA requires secondary NAAQS to be set
> at
> levels to eliminate all adverse visibility effects.
>
> The Court remanded the ozone and PM NAAQS rules to the Agency
> for
> further consideration. The Court did not vacate the new ozone
> standards because the Court did not believe that the new standard
> would result in costly compliance activities in light of the
> Court's
> determination that it cannot be enforced. The Court did vacate
> the
> revised PM10 standards. Regarding the PM2.5 standards, the Court
> invited briefing on a remedy, which could include vacatur,
> non-vacatur
> subject to application to vacate, and non-vacatur.
>
>
>
>



Environmental Quality Board

Original: 2009
Bush
cc: Smith
Tyrrell
Sandusky
Legal

p.o. box 8477 • harrisburg, pa. 17105-8477 • (717)787-4528

RECEIVED
99 MAY 21 PM 3:36

May 21, 1999

INDEPENDENT REGULATORY
REVIEW COMMISSION

Mr. Robert E. Nyce
Executive Director
Independent Regulatory Review Commission
14th Floor, Harristown II
Harrisburg, PA 17101

RE: Proposed Rulemaking: Interstate Ozone Transport Reduction Requirements
(NOx SIP Call) (#7-345)

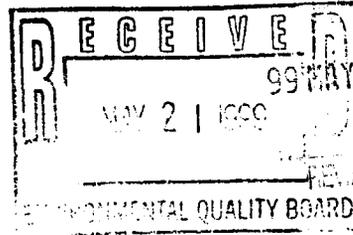
Dear Mr. Nyce:

Enclosed is a corrected page 3 to Sunoco's comments concerning the subject proposal. Please call me if you have any questions.

Sincerely,

Sharon K. Freeman
Regulatory Coordinator

Enclosure



Original: 2009
Bush
cc: Smith
Sun Company, Inc.
3144 Passyunk Avenue
Philadelphia PA 19145-5299
215 339 2000

Tyrrell
Sandusky
Legal

5/18/99

Environmental Quality Board
15 th Floor
Rachel Carson State Office Building
P.O. Box 8477
Harrisburg, Pa. 17105-8477

Re: Typographical correction to comments submitted Re. to:
25 PA 145 Proposal at Pa Bulletin Vol. 10, 3/6/99, Interstate
Ozone Transport Reduction

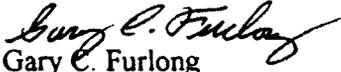
Dear Sirs:

My sincere apologies, but this is the second submittal to my original comments to correct a typographical error. My first error correction was dated May 10, 1999.

Please replace page 3 of my original submission of May 6 with the attached page. The attached page has a corrected number in the Text Table 1 that is shown in bold print and footnoted.

Again, my apologies for this inconvenience.

Very Truly Yours,


Gary C. Furlong
Managing Environmental Consultant - Air

Attachment

COMMENTS OF SUNOCO, Inc. (R&M)
 TO THE PROPOSED NOX ALLOWANCE PROGRAM PROPOSED AT
 PA BULLETIN, VOL. 29, No. 10, 3/6/99,
 INTERSTATE OZONE TRANSPORT REDUCTION

1. Sunoco, Inc. hereby submits data to clarify what units are applicable under the proposal and the baseline firing rates and NOx emissions: This is presented in the following tabulations:

In the following tables these abbreviations apply:

- GP = The Girard Point Processing Area of the Philadelphia Refinery
- PB = The Point Breeze Processing Area of the Philadelphia Refinery
- MH = The Marcus Hook, Pa. Refinery

Text Table 1, Non-EGU Units

Source & Location	Type	Point I.D. in Current 25 PA 123 Rule	Full Year 1995 Heat Input MM Btu	Full Year 1995 NOx tons	May-Sept. 1995 Heat Input MM Btu	May-Sept. 1995 NOx tons
GP-No. 37 Boiler	Boiler For Steam Heat	02-2,3	1006003	202.8	432884	87.2
GP-No. 38 Boiler	Boiler For Steam Heat	02-4,5	1707940	344.2*	729093	146.9
GP-No. 39 Boiler	Boiler For Steam Heat	02-6,7	2241409	451.7	923018	186
GP-No. 40 Boiler	Boiler For Steam Heat	02-8,9	2593348	522.7	1113261	224.4
GP-F-1 Heater	Process Heater	002-2,3,4	2586769	386.6	1130205	161.1
PB- 3H1 Heater	Process Heater	19/20	1236890	56.8	616322	28.3
MH-No. 7 Boiler	Boiler For Steam Heat	089	1995149	388.2	895106	161.8

*This number corrected in letter dated 5/18/99

Text Table 2, EGU Unit

Source & Location	Type	Point I.D. in Current 25 PA 123 Rule	1995/1996 Average Heat Input MM Btu	1995/1996 Average NOx tons	May-Sept. 1995/1996 Avg. Heat Input MM Btu	May-Sept. 1995/1996 Avg. NOx tons
MH-Co-Generator	EGU	090	3150947	303.3	1232889	137.4
			Highest two year average of 1995/96/97			

this item continued next page

Original: 2009

Bush

cc:

Smith

Tyrrell

Sandusky

legal



By Express Mail

Gas Pipelines - Transco
2800 Post Oak Boulevard (77056)
P.O. Box 1396
Houston, Texas 77251-1396
713/215-2000

May 7, 1999

James M. Seif, Chairman
Environmental Quality Board
15th Floor
Rachel Carson State Office Building
P.O. Box 8477
Harrisburg, PA 17105-8477

**Re: Comments on Interstate Ozone Transport Reduction Proposal
29 Pa. Bull. 1319 (Mar. 6, 1999)**

Dear Chairman Seif:

Transcontinental Gas Pipe Line Corporation ("Transco") is pleased to submit the following written comments on the Pennsylvania Environmental Quality Board's ("EQB") Interstate Ozone Transport Reduction proposed regulation published in the Pennsylvania Bulletin. See 29 Pa. Bull. 1319 (Mar. 6, 1999). Transco's comments focus primarily on the proposed new Chapter 145, Subchapter B, relating to NOx emission limitations for certain stationary reciprocating internal combustion engines. Transco understands that the Pennsylvania Department of Environmental Protection ("PaDEP") Bureau of Air Quality relied upon the Environmental Protection Agency's ("EPA") proposed Federal Implementation Plan ("NOx FIP") published on October 21, 1998 as the technical and economic basis for the new proposed emission limitations.¹

Transco supports state flexibility instead of a one-size-fits-all federally imposed program. Transco recognizes the severe time constraints imposed on the EQB by the EPA's NOx SIP Call. However, EPA, in the proposed NOx FIP erroneously required a control level for lean-burn engines of 125 ppmv NOx at 15 percent O2 for engines that are 2400 hp or larger. EPA has conceded this emission limitation represents Selective Catalytic Reduction ("SCR") control. See 63 Fed. Reg. at 56416. SCR control is not presently technically or economically feasible on variable load engines, such as the engines owned and operated by Transco. Transco requests EQB amend the proposed regulation and delete subchapter B in its entirety, or in the alternative, only include engines that are 2400 hp or larger with actual NOx emissions during the 1995 ozone season greater than one ton per day. Finally, Transco suggests an intra-company averaging and/or trading mechanism for certain internal combustion engines be included in the final rule.

¹ The NOx FIP, which has not been finalized by EPA or subject to judicial review, will only become effective in those states that fail to submit approvable SIPs in response to EPA's NOx SIP Call. The NOx SIP Call allows states flexibility to choose control measures other than EPA-assumed controls to meet numerical budgets.

Transco is an interstate natural gas transmission company. Transco's 1900-mile pipe line system transports natural gas from production areas in the Gulf Coast region to customers along the eastern seaboard. Its principal markets encompass eleven southeast and Atlantic seaboard states. Transco delivers approximately 62% of all natural gas consumed in major metropolitan areas in New York, New Jersey and Pennsylvania.

On a system-wide basis, over one million horsepower is utilized to compress and move the gas along its main lines and laterals to its market area customers. The compression of natural gas is made possible through the application of internal combustion reciprocating engines (lean-burn and rich-burn), gas and steam turbines and electric motors. Over forty compressor stations are located along the interstate pipeline system at intervals of forty to one hundred miles. In Pennsylvania, Transco operates six compressor stations, including two along its main line, which transport the major portion of gas being delivered to the northeast market areas; and four along its Leidy Line, which is a storage lateral originating from Raritan, New Jersey, and extending west to Wharton, PA.

Many of the engines at Transco's compressor stations were required to develop and implement on a case-by-case basis Reasonably Available Control Technologies ("RACT"). In its top-down RACT analysis, Transco determined that SCR was not technically or economically feasible for its variable load engines. To satisfy RACT requirements, Transco installed low emission combustion ("LEC") on the majority of its engines in Pennsylvania.

Transco submits that additional emission limitations on these engines are not technically and economically feasible. The EQB proposal states, without reference to any source, that "for internal combustion engines, it is estimated that these sources will incur control costs between \$500 and \$2000 per ton which the EPA has determined to be highly cost effective for this source category." See 29 Pa. Bull. at 1321. Clearly, the EPA NOx FIP is in error and PaDEP's reliance on EPA's NOx FIP without independent verification and analysis is unreasonable, arbitrary and capricious. For the reasons set forth below, PaDEP should not rely upon the pending, proposed NOx FIP.

1. THE 2400 BHP CUTOFF IS ARBITRARY UNLESS LIMITED TO ENGINES WITH GREATER THAN ONE TON PER DAY ACTUAL NO_x EMISSIONS DURING 1995

a. EPA has failed to use a consistent methodology to designate "large" units in the non-EGU inventory

In the NOx FIP, EPA claims to have used the same methodology as that used in the NOx SIP Call to designate "large" non-EGU units. The NOx SIP Call, 63 Fed. Reg. 57356, 57416 (Oct. 27, 1998), explicitly set forth the five-step process to be followed to distinguish Large sources from Small sources. Under the EPA's algorithm, heat capacity is first determined either by inventory data (step 1) or a default procedure (step 2). Sources with heat inputs of greater than 250 MMBtu/hr are designated as

Large sources and have assumed emission reductions (step 3). Emission reductions based upon tonnage per day are assumed only if heat capacity data are unavailable by inventory or default data (step 4). All other sources are considered Small (step 5). Under this algorithm, all sources with known heat inputs of 250 MMBtu/hr or less (either by inventory or default data) are to be considered small. EPA now indicates that this explicit algorithm is not to be followed. Now, in the NOx FIP, EPA says the dividing line between Large and Small non-EGU sources is to be 2400 horsepower. But the published inventory is not consistent with this interpretation nor the 250 MMBtu/hour or even the one ton/day. In the final inventory, 1,887 units in the non-EGU inventory with no capacity information are designated as “large” even though the unit’s average summer day emissions are less than one ton per day. Transco’s trade association has submitted comments to EPA requesting revisions to the regulated source category.

PaDEP’s reliance on EPA’s proposed NOx FIP as the basis to limit NOx emissions from internal combustion engines similarly fails to hold up under close analysis. The proposed 2400 horsepower cutoff for reciprocating internal combustion engines is inconsistent with the Ozone Transportation Assessment Group (“OTAG”) recommended horsepower cutoffs and inconsistent with the size cutoffs used by EPA in calculation of the NOx SIP Call budgets. For non-utility point sources, OTAG recommended that “Large” sources include reciprocating internal combustion engines equal to or larger than 8,000 horsepower. In the final NOx SIP Call inventory, EPA indicated that they chose to use capacity indicators primarily to set cutoff levels. If the source was greater than 250 MMBtu, additional emission reductions were included to calculate the state NOx budgets. Also, the proposed 2400 horsepower cutoff for reciprocating internal combustion engines is inconsistent with the OTAG recommended emissions cutoff for “Large” sources. For non-utility point sources, OTAG recommended that “Large” sources include sources with 2 tons NOx emissions per average summer day or more. The 2400 horsepower cutoff is based on EPA’s assumption that sources with NOx emissions of greater than or equal to one ton per day should be controlled.

While EPA indicated that an applicability threshold of 2400 hp was selected because engines of that size have the potential to emit at least one ton per day of NOx, the applicability criterion does not recognize the fact that not all engines ≥ 2400 hp emit at least one ton per day of NOx. Many 2400 hp engines emit less than 1 ton per day of NOx. The applicability threshold of 2400 hp was selected based on EPA’s use of emission factors for lean-burn and rich-burn engines found in the ACT document, 16.8 and 15.8 g/hp-hr respectively. Transco’s trade association commented to EPA that if EPA intends to regulate only “Large” reciprocating internal combustion engines, EPA should revise the applicability criterion to be consistent with the state budgets and EPA actions in the NOx SIP Call rulemaking. PaDEP has not identified how it determined the size cutoff for these engines, except to rely entirely on EPA’s proposed NOx FIP.

b. The applicability criterion does not recognize units that have already been controlled for NOx

The proposed 2400 horsepower cutoff would cause additional NOx controls for many more reciprocating engines than those designated "Large" in the NOx SIP Call budgets. As proposed, the NOx FIP and the EQB proposal would impose emission limitations and emissions monitoring requirements on all engines equal to or greater than 2400 hp, regardless of the unit's actual emissions. This would result in the imposition of emission limitations and emissions monitoring requirements on engines that were designated "Small" in the state budgets and designated "Small" using the methodology described by EPA in the NOx SIP Call.

The purpose of the NOx FIP should be to implement a program of control that would meet the promulgated NOx budgets, not to expand the program of control to other sources. EQB and EPA, if it intends to impose a FIP upon Pennsylvania or any other OTAG state, must apply a consistent methodology for determining the size of a unit. Transco recommends that EQB and if necessary, EPA consistently apply the size designation methodology used in the NOx SIP Call.

EPA states that the NOx FIP proposal is intended to achieve the NOx emissions reductions required by the NOx SIP Call (and EQB states in the preamble that this rule will meet the NOx SIP Call) and the EPA's rulemaking docket contains information and analyses that are relied upon in the NOx FIP proposal. Although EPA has included by reference the entire NOx SIP Call docket, the proposed NOx FIP states that the only portions that form the basis for the FIP rulemaking are those that address feasibility and cost effectiveness of control measures and the projection of emissions reductions that various control measures would achieve. Nevertheless, EPA's proposed NOx FIP goes beyond these areas because it does not apply the same methodology described in the NOx SIP Call to designating "Large" non-EGU Units in the final inventory.

The EQB proposal does not distinguish between engines that have installed LEC technology and uncontrolled engines. The proposed threshold for regulating engines with greater than 2400 horsepower should include only those engines with actual emissions during the 1995 ozone season above one ton per day.

2. SCR IS NOT RELIABLE, COST EFFECTIVE CONTROL TECHNOLOGY

a. EPA ignored information in the ACT document that indicates SCR is not a reliable control technique to achieve 90 percent reduction of NOx from lean-burn engines in variable load applications.

According to the Technical Support Document (TSD) for Stationary Internal Combustion Engines (VI-B-13), EPA adopted SCR and 90 percent reduction as the control technique for lean-burn engines based on information provided in Table 2-5 of

the Alternative Control Techniques Document -- NOx Emissions from Stationary Reciprocating Internal Combustion Engines (EPA-453/R-93-032) (ACT document):

The control level for spark ignited lean-burn engines that meets the \$2,000/ton criteria above, is a limit of 125 ppmv NOx at 15% O₂. This represents selective catalytic reduction (SCR) control. SCR provides the greatest NOx reduction of all technologies considered in the ACT document for lean-burn engines and is capable of providing a 90 percent reduction in NOx emissions. This emission limitation corresponds to the 'Expected controlled NOx emission levels' (SCR) from Table 2-5 of the ACT document.

Table 2-5 does indicate a 90 percent reduction in NOx emissions for SCR and a footnote indicates this percent reduction is the "guaranteed NOx reduction available from most catalyst vendors." Section 5.2.4.4 of the ACT states that emission reductions of 80 to 90+ percent are possible using SCR on lean-burn engines that are used in baseload applications:

Based on the available information and the emission test data presented in Tables 5-8 and A-5, it is estimated that the achievable NOx emission reduction for SCR in gas-fired applications is 80 to 90+ percent for baseload applications, with an NH₃ slip level of 10 ppmv or less.

However, Section 5.2.4.4 of the ACT states that inadequate information was available to determine achievable continuous NOx reductions and ammonia slip levels for SCR in **variable load applications**:

The available data are not sufficient to assess the achievable continuous NOx reductions and ammonia slip levels for SCR used in variable load applications.

Section 2.2.2.4 of the ACT notes that "there is also little experience with SCR in variable load applications due to ammonia injection control limitations." In addition, Section 5.2.4.4 states that variable load applications may pose problems for the SCR system:

The duty cycle of the engine should also be considered in determining the applicability of SCR. Exhaust temperature and NOx emission levels depend upon engine power output, and variable load applications may cause exhaust temperature and NOx concentration swings that pose problems for the SCR system. The lower exhaust temperature at reduced power output may result in a reduced NOx reduction efficiency from the catalyst.

When the additional information presented in the ACT document is considered, along with information presented in the comments provided below, it is clear that PaDEP should not rely upon EPA's erroneous identification of SCR as the NOx control technique for lean-burn engines in variable load applications. SCR is not feasible for

variable load applications and a 90 percent reduction of NOx is not achievable using SCR on engines in variable load applications.

b. SCR is not feasible for variable load applications, such as natural gas compression.

The natural gas transmission industry has evaluated NOx emissions controls for hundreds of engines under NOx RACT and found that SCR is not a reliable control technique for engines in natural gas compression service (a variable load application). State regulators have agreed -- in no case is SCR required as NOx RACT for engines in transmission service. Instead, NOx emissions reductions have been achieved using low emissions combustion ("LEC"), combustion modifications or parametric controls ("PC"). These technologies are proven for natural gas-fired lean-burn engines, while SCR is not.

Reciprocating internal combustion engines in natural gas compression service are used to compress and move natural gas along the pipeline. An engine must respond to pipeline conditions, supply, and demand for natural gas. As a result, engines are frequently required to change load and speed conditions. This variable load operation complicates the successful operation of an SCR system given: 1) variations in NOx emissions, 2) variations in exhaust gas flow and temperature, and 3) thermal cycling.

1. Variations in NOx Emissions.

In order for SCR to work properly, with the appropriate control of NOx emissions and without excessive ammonia emissions, it is necessary that the proportions of NOx and ammonia be correct. Changes in load and speed produce changes in the NOx emissions from the engines. For example, a load change of only five percent can significantly change the NOx emitted from an engine. When these changes occur, the ammonia feed system must be adjusted to maintain the proper ratio of ammonia to NOx. In Section 5.2.4.2, the ACT notes that variable load can cause NOx concentration swings that pose problems for the SCR system. SCR systems traditionally use a feedback system that relies on a NOx or ammonia analyzer to adjust the ammonia feed system. It takes approximately five minutes time to extract a sample and report NOx emission levels using a NOx CEMs. A recent installation of SCR at the Buckeye Pipeline station relies on a predictive emissions model ("PEMs") as the feed-forward control for ammonia feed. The engines are not equipped with CEMs. Transco's trade association understands that EPA and the South Coast Air Management District are reviewing this installation to determine if it is cost-effective. At the Buckeye station, the engines were purchased new and the manufacturer designed the PEMs to control the ammonia feed system. In addition, the engines are used to drive liquid pumps and the variations in load and speed for the engines are limited by the range of operation of the pumps. In contrast, engines on a natural gas pipeline must respond to the conditions of the natural gas within the pipeline -- a much

wider range of operation than is required for liquid pumps like those at the Buckeye station. There are no known applications where PEMs have been successfully used as feed-forward controls for existing reciprocating internal combustion engines.

2. Variations in Exhaust Gas Flow and Temperature.

Variable load conditions also result in variations in exhaust gas flow and temperature conditions. The ammonia control system would need to be adjusted to respond to the changes in the exhaust mass flow rate. Variable exhaust gas flow rates would also affect mixing in the catalyst. The wider the range in exhaust gas flow rates, the more difficult it is to design a catalyst that can reliably achieve high emission reductions (e.g., 90 percent). Reduced engine load can also decrease the exhaust gas temperature below the range for optimal NO_x conversion, which would not allow the catalyst to reliably achieve high emission reductions. Section 5.2.4.2 of the ACT states that "lower exhaust temperature at reduced power output may result in a reduced NO_x reduction efficiency from the catalyst."

3. Thermal Cycling

Variable load conditions also result in thermal cycling of the catalyst -- as the engine exhaust temperature changes. This thermal cycling leads to reduced catalyst life.

The complications introduced by variable load operation have not been sufficiently resolved to ensure reliable operation of SCR on engines in variable load applications, such as natural gas compression. EPA concluded that SCR was a feasible control technology (that achieves 90 percent reduction of NO_x) based on a limited review of information presented in the ACT document. EPA is reconsidering its limited review and will likely issue guidance to states correcting the erroneous proposal. PaDEP should not rely upon EPA's limited review of the ACT document.

c. SCR will not reliably achieve 90 percent reduction of NO_x for variable load applications.

The TSD indicates that EPA adopted SCR and 90 percent reduction based on vendor quotes presented in Table 2-5 of the ACT document. However, as presented in the comments above, EPA ignored other information in the ACT document that indicates SCR is not a reliable control technology to achieve 90 percent reduction of NO_x for variable load applications.

d. The available data are not sufficient to assess the achievable continuous NO_x reductions and ammonia slip levels for SCR used in variable load applications.

Variable load applications present unique difficulties for SCR that have not yet been adequately addressed to allow widespread application of SCR for engines in load-following applications, such as natural gas compression.

In the ACT document, emission test data for six engines with SCR are presented. Results for over 30 emission tests for the six small engines are provided in the ACT document. All the engines tested are smaller than the proposed size cutoff of 2400 horsepower (hp) proposed by EPA in the NOx FIP. The emissions data suggest that the percent NOx reduction achieved with SCR varies. Although the variability is not discussed in the ACT document, it is likely that the variability is due to changes in the engine's operation. The range of effectiveness for the six engines is presented in the table below.

Engine No.	Manufacturer	Model	Horsepower	Number of Tests	Range of NOx Control Reported (%)
45	Clark	HRA-6	660	5	84-91
47	Clark	HRA-6	660	5	82-88
139	Cooper Bessemer	GMV	660	1*	50
248	Cooper Bessemer	GMV-8	800	9*	87-93
309	Clark	HRA-32	350	12	65-84
357	Tecogen	CM-200	291	2	95-97

*One additional test was conducted, where zero emission reduction was reported. No explanation is provided in the report for those results.

The only engine that achieved levels greater than 90 percent for all tests conducted was a small engine designed for cogeneration (the Tecogen). The Tecogen would be installed in a baseload application -- not a load-following application. Two other engines reported levels at or above 90 percent for at least one test, but levels less than 90 percent for other tests. The other engines did not include any test results at or above 90 percent NOx reduction.

EPA adopted SCR and 90 percent reduction based on limited information presented in Table 2-5 of the ACT. However, information presented in Section 5.2.4.4 of the ACT indicates that EPA was not able to determine an achievable NOx reduction level for the use of SCR in load-following applications. Therefore, EPA should not use, and PaDEP should not require, SCR and 90 percent reduction for lean-burn engines in the NOx FIP or in the EQB's proposal.

e. SCR is not a demonstrated NOx control technology for reciprocating internal combustion engines in variable load applications.

The ACT document states that “there is also little experience with SCR in variable load applications due to ammonia injection control limitations.” As indicated above, the natural gas transmission industry has evaluated NOx emissions controls for hundreds of engines under NOx RACT and found that SCR is not a reliable control technique for engines in natural gas compression service (a variable load application).

According to a review of SCR conducted by the Gas Research Institute (“GRI”) (attached to these comments as Appendix A), SCR has been installed on reciprocating engines in very few instances. No natural gas-fired lean-burn engines were identified by GRI in the EPA RACT/BACT/LAER Clearinghouse with SCR controls (based on a query of post-1991 determinations for natural gas-fired internal combustion -- 15.004). RACT/BACT/LAER determinations for lean-burn engines relied on LEC technology, other combustion modification (such as high energy ignition systems), or parametric controls (such as retarded timing and air to fuel ratio adjustment). A total of 18 diesel engines with SCR controls (PA-0096 and PA-0097) were identified in the clearinghouse. The SCR controls for the diesel engines reduce NOx emissions by 80 percent.

The GRI study also cites the fact that results from a 1996 survey of North American interstate natural gas transmission companies indicate that of the 599 lean-burn engines with NOx controls, only two engines in the United States have SCR installed. Those two engines since have been mothballed due to difficulties operating the SCR units in a load-following application. NOx emissions from lean-burn engines in pipeline service have been controlled using combustion modifications or parametric controls because of the problems associated with using SCR in the variable load application.

The information presented above indicates that SCR is not demonstrated in practice for load-following applications. The information presented in the ACT document is not a sufficient basis for EPA to conclude that SCR is feasible (with 90 percent reduction) for all existing engines that would be subject to control requirements under the FIP proposal or the SIP Call. EPA should not base its proposed NOx FIP or state budgets for the FIP and SIP Call on the use of SCR for lean-burn engines. Similarly, PaDEP should not rely upon EPA’s erroneous proposed FIP.

3. EPA’s cost-effectiveness analysis for the use of SCR relies on 90 percent reduction of NOx, which is not feasible for load-following applications.

The TSD indicates that EPA relied on Figure 2-6 of the ACT to evaluate the cost-effectiveness of SCR:

As illustrated in Figure 2-6 of the ACT...The cost-effectiveness is about \$800/ton for a 2200 hp engine operated 8,000 hours per year. Therefore, SCR meets the criteria of less than \$2,000/ton of NOx reduction.

The cost-effectiveness results presented in the ACT document rely on 90 percent reduction of NOx. As indicated in the comments above, SCR has not been shown to reliably reduce NOx emissions by 90 percent in load-following applications. The ACT document states that although 90 percent is used for the cost-effectiveness calculations in that document, EPA had insufficient information to determine “achievable continuous NOx reductions and ammonia slip levels for SCR used in variable load applications.” Variable load operation presents unique difficulties, including variations in NOx emissions, variations in exhaust gas flow and temperature, and thermal cycling, that have not been adequately addressed in the EPA cost analysis. Therefore, EPA and EQB should not conclude that SCR is cost-effective for all engines that would be subject to the NOx FIP or NOx SIP Call, since clearly EPA and EQB have not established the effectiveness or feasibility of SCR for load-following applications. EPA should work with industry stakeholders to assess the cost-effectiveness of NOx control techniques for reciprocating internal combustion engines.

4. Projection of Emission Reductions that Various Control Measures Would Achieve.

EPA calculated the state budgets for the proposed FIP and the SIP Call based on the Agency’s assessment that SCR can achieve 90 percent NOx reduction from lean-burn reciprocating internal combustion engines. As indicated in the comments above, EPA concluded in the ACT document that, while SCR could achieve 80 to 90 percent NOx reductions for engines in baseload applications, there was insufficient information to assess achievable NOx reductions for SCR on engines in variable load applications. 90 percent reduction of NOx using SCR is not proven in practice for lean-burn reciprocating engines in loadfollowing applications.

EPA should reevaluate the emission reductions for lean-burn engines based on NOx controls that are proven and are shown to be cost-effective for lean-burn reciprocating internal combustion engines.

The emission levels for lean-burn engines cannot be achieved at a cost of \$2,000 per ton of NOx. Based on the ACT document, EPA incorrectly concluded that SCR for lean-burn engines could be implemented on a 2200 hp lean-burn engine for about \$800 per ton of NOx. Industry data suggests that these costs are not correct.

While Transco supports the 30-day rolling average, EPA should specify that emission limits are at 100% speed and 100% torque. The attached GRI (Appendix A) report on the effectiveness of SCR applied to pipeline compressor engines also concludes that SCR is infeasible for pipeline compressor engines. The report documents that research data collected on internal combustion engines utilizing SCR is biased towards small engines in

baseload applications rather than the type of units. The industry has only identified two compressor units that have been tested with SCR. These compressor units have subsequently been removed from service due to poor performance. The report further concludes, as did the original ACT document that SCR is not designed for load following applications. Finally the test data from the ACT document shows that the average performance of the tested engines was significantly below 90% emission reduction.

5. Control Cost Effectiveness and Economic Impact Analysis

Transco's trade association has examined the Regulatory Impact Analysis for the NOx SIP Call, proposed NOx FIP, and Section 126 Petitions, the Non-Electricity Generating Unit Economic Impact Analysis for the NOx SIP Call and Ozone Transport Rulemaking - NonElectricity Generating Unit Cost Analysis. These documents contain cost analysis for control options for Large Stationary IC engines. The trade association strongly believes that errors in the basic underlying assumptions that support these analysis have severely distorted the conclusions reached regarding the control cost effectiveness of Large Stationary IC engine and the resultant economic impact on the natural gas transmission industry.

First, the emission inventory for IC engines category is significantly flawed regarding the number of sources and their corresponding level of emissions. This directly affects all subsequent economic analysis using this inventory.

Second, EPA's cost analysis for all control options depend on tons of NOx removed as a percentage of uncontrolled emissions. If uncontrolled emissions are significantly overstated, which we believe they are in the EPA analysis, then cost effectiveness is likewise equally overstated. As stated above the ACT uses 16.8 g/hp-hr while AP-42 is 11 g/hp-hr. This difference alone could lead to underestimating cost by 50 percent.

Third, cost effectiveness is also affected by percentage of source utilization during the ozone season. Transco's trade association members operate a number of IC engines at natural gas storage fields. Although source utilization varies widely, average summer time values for IC engines with potential to exceed one ton a day are typically in the range 50% or less. Thus cost effectiveness calculations for this sector could be underestimated by a factor of two from those used in EPA's cost analysis which was 91%. This fact point is confirmed by EPA's contractor Pechan-Avanti Group on page 57 in the September 17, 1998 report entitled Ozone Transport Rulemaking Non-Electricity Generating Unit Cost Analysis: There are uncertainties in the cost per ton values for IC engines because we do not know which engines are lean burn versus rich burn (lean burn is assumed), **nor operating practices (hours of operation and load)**. All of these factors affect control cost." Following on page 61: "For the non-trading source analysis, the cost effectiveness of controls applied to IC engines **are a key factor in the cost analysis.**"

Finally, the cost for annual emissions monitoring are also significantly underestimated. In a study recently completed for the natural gas industry, the annual cost for CEM on a single IC engine is estimated as \$ 107,000 per year. This is about two and one half times the \$ 43,353 per year reported in the Regulatory Impact Analysis Report.

In summary, after the corrections noted above are made, EPA's conclusion that SCR NOx emission controls for IC engines is highly cost effective, i.e. under \$ 2000 per ton, is in error. Significantly, EQB's reliance on EPA's cost analysis is also in error.

Transco's Suggested Language

Transco has demonstrated that EPA's proposed level of NOx reduction for internal combustion engines greater than 2400 hp is not technically or economically feasible. Therefore, EQB should not look to those engines as a significant source of the further reductions of NOx emissions required to comply with the NOx SIP Call. If PaDEP requires additional NOx reductions to meet the NOx SIP Call, then the regulated engines should be limited to Large engines, or those with emissions greater than one ton of NOx per summer day. Suggested regulatory language is set forth below:

Section 145.101 Applicability

- (a) An owner or operator of a lean or rich burn stationary internal combustion engine that had average daily NOx emissions of one ton or more during the five month period May 1, through September 30, 1995.
- (b) - (d) remain the same

Section 145.102 Definitions

Definitions remain the same

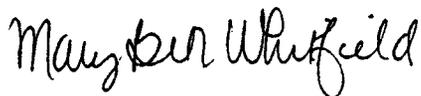
Section 145.103 Standard Requirements

- (a) After May 1, 2003, an owner or operator of a unit subject to the standards of this subchapter may not operate the unit May 1--September 30 of 2003, and any subsequent year unless the owner or operator has retrofitted that engine with low emission combustion technology.
- (b) In lieu of low emission combustion technology retrofit on engines subject to this subchapter, an owner or operator may propose an Alternative Emission Control Program that achieves equivalent emission reductions. Equivalent emission reductions will produce an equal number of NOx reductions when applied to sources operating as they were during 1995.

- (c) An owner or operator of a unit subject to this subchapter, shall demonstrate compliance with the requirements of subsection (b) using methods of compliance demonstration approved by the Department and EPA.
- (d) An owner or operator of a unit subject to subsection (b), as applicable, shall comply with the following:
1. No later than January 1, 2002, submit to the Department a plan for achieving initial compliance with the requirements of subsections (b) and (c) or an Alternative Emission Control Plan.
 2. No later than May 1, 2003, monitor operations and emissions and perform recordkeeping and reporting for the period from May 1 through September 30 of the previous year.
 3. By March 31, 2004, and by March 31 of each following year submit to the Department a report documenting compliance with the requirement of subsection (b) for the period of May 1 through September 30 of the previous year.

Transco appreciates the opportunity to comment on this proposed rule, and looks forward to working with PaDEP in the future. If you have any questions or need clarification, please feel free to contact me at (713) 215-4562.

Sincerely,



Mary Beth Whitfield
Senior Environmental Scientist
Air Quality Compliance

Original: 2009
Bush

cc: Smith
Tyrrell
Sandusky
Legal

**TRANSCONTINENTAL GAS PIPE LINE CORPORATION'S ONE PAGE
SUMMARY OF ITS WRITTEN COMMENTS ON THE INTERSTATE
OZONE TRANSPORT REDUCTION PROPOSED RULEMAKING**

Transcontinental Gas Pipe Line Corporation ("Transco") has submitted detailed written comments on the Environmental Quality Board's ("Board") Interstate Ozone Transport Reduction proposal published in the Pennsylvania Bulletin on March 6, 1999. Transco's written comments focus primarily on the proposed new Chapter 145, Subchapter B, relating to NOx emission limitations for certain stationary reciprocating internal combustion engines.

Transco supports state flexibility in approving control measures to achieve the emission reductions required by the Environmental Protection Agency's ("EPA") NOx SIP Call. Unfortunately, the Board, in proposing the new Subchapter B, has relied solely upon the EPA's proposed Federal Implementation Plan ("FIP") published in the Federal Register on October 21, 1998. However, EPA appears to have changed its position on regulating internal combustion engines. On May 6, 1999 (after Transco's written comments were prepared), EPA posted on its Technology Transfer Network revisions to the NOx SIP Call and the associated emission budget inventories. EPA now intends to include in the emissions budget inventory only those internal combustion engines with 1995 emissions greater than one ton of NOx per day. Transco supports the EPA's May 6, 1999 revisions to the NOx SIP Call and the associated emissions inventories.

In the proposed FIP, EPA erroneously included internal combustion engines with a rated capacity greater than 2400 bhp instead of engines with emissions greater than one ton per day of NOx. Indeed, this is the same threshold included in the Board's proposed rule. EPA concedes that the proposed NOx FIP emission limitation represents the use of selective catalytic reduction control ("SCR"). However, as discussed in Transco's written comments, SCR control is not presently technically or economically feasible on variable load engines. Indeed, Transco's engines, which are used to compress and move natural gas along an interstate natural gas pipeline, are variable load.

Transco has suggested for the Board's consideration alternative language in its detailed written comments, including the use of averaging to achieve equivalent emission reductions.

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