Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063
March 30, 2004

Office of Air, Recycling and Radiation Protection 717-772-2724

Air Docket (6102T)
US Environmental Protection Agency
Mail code: 6102T
1200 Pennsylvania Ave., NW
Washington, DC 20460
Attention: Docket ID No. OAR-2003-0053

Re: Comments on the Notice of Proposed Rulemaking: Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (69 FR 4566) (January 30, 2004) Docket ID No. OAR 2003-0053

To the Docket:

The Commonwealth of Pennsylvania appreciates the opportunity to submit comments on the Interstate Air Quality Rule (IAQR) proposed by the U.S. Environmental Protection Agency (EPA) on January 30, 2004 (69 FR 4566). While the Commonwealth applauds EPA's recognition of the need to address the interstate transport of ozone precursors and fine particulate emissions and the anticipated public health benefits and air quality improvements, the Commonwealth cannot support the EPA proposal published on January 30 because the emission standards will not adequately protect public health and the environment.

We strongly support a federal multi-pollutant approach for achieving emission reductions that will be required to attain and maintain the health-based ozone and fine particulate ambient air quality standards. A federal regulation is necessary to assure consistency and a "level playing field" for affected facilities. However, the proposed EPA approach does not ensure consistency, equity or a level playing field.

The Commonwealth has a number of concerns about the EPA proposal including: (1) the compliance deadlines in the EPA proposal are entirely too long; (2) the emissions caps are too weak to assure an adequate reduction in transported air pollution; (3) an insufficient number of sources are covered; (4) the modeling analysis used to support EPA's analysis of the benefits of the proposed rule is outdated and flawed; (5) the sulfur oxide allocation process penalizes a number of Pennsylvania facilities; and (6) the proposal weakens the important regulatory remedy available to the states for addressing interstate transport under Section 126 of the Clean Air Act (CAA).

EPA's promulgation of a strong interstate air quality rule is critical to protection of public health. However, this proposal leaves significant, cost-effective controls on the table now and for the foreseeable future. EPA's failure to assure necessary emission reductions will result in continued public exposure to unhealthful levels of ozone and fine particulate. The health impacts of this rulemaking are so significant that EPA cannot responsibly leave these highly cost-effective emission reductions behind.

The Ozone Transport Commission (OTC) has developed a position that clearly defines an overall attainment strategy that meets the objective of protecting public health while providing a more consistent, equitable and level playing field. We believe the adopted OTC position represents a fiscally and technically sound effort to protect public health, in a cost effective manner and on a realistic, achievable, timetable. The Commonwealth urges EPA to revise the proposed IAQR to incorporate the OTC platform.

Under the OTC proposal, reduction targets would be phased-in as follows:

	National Cap Numbers
SO_2	• 2008: 3.0 MT *interim* • 2012: 2.0 MT
NO_X	• 2008: 1.87 MT *interim* • 2012: 1.28 MT
Hg	• 2008: 15 ton interim cap • 2012: 10 ton maximum cap • 2015: Approximately 5 tons per year

The Phase I (2008) mercury reductions proposed by OTC are generally considered to be the achievable through the application of SO_2, NO_X and particulate matter (PM) control technologies. The Phase II (2012) mercury reductions are achievable through further application of SO_2, NO_X and PM controls needed to achieve the respective caps and standards and application of some additional mercury-specific control measures. The Phase III (2015) mercury reductions are to be set by a performance standard to be identified no later than 2012, and are generally expected to require additional mercury-specific control technology applications beyond those required in 2012.

Flow control for NO_X and SO_2 (such as that successfully implemented in the OTR through the NO_X Memorandum of Understanding for NO_X) should be required to ensure that banked allowances do not interfere with meeting our air quality goals.

Compliance Deadlines

First, EPA's proposal allows utilities far too long to comply with their emission reduction obligations – in fact several years later than when states and localities are required to attain the NAAQS. Because compliance with the proposed emission caps is not required until after the eight-hour ozone and the $PM_{2.5}$ attainment dates, the states cannot rely on the control measures to meet these ambient standards.

For example, EPA is likely to require areas to attain the $PM_{2.5}$ standard by 2010 (using monitoring data from 2008, 2009 and 2010), and to meet the eight-hour ozone standard by 2007 for marginal areas (using data from 2004, 2005 and 2006), 2010 for moderate areas (using data from 2007, 2008 and 2009), and 2009 for all areas covered under Subpart 1 (using data from 2006, 2007 and 2008). These attainment dates will not be achieved without significant reductions from power plants in these timeframes, yet EPA's proposal allows utilities until 2010 for Phase I and 2015 for Phase II to reduce their emissions. Furthermore, because of the liberal banking provisions, allowances will be so plentiful that virtually no emission reductions will occur until well after the effective dates.

Emission reductions from the electric generating units can be achieved on a time schedule much faster than proposed by EPA. These significant emission reductions are the only feasible way that Pennsylvania and other transport-impacted states will have any reasonable prospects of meeting the new attainment requirements.

Emissions Caps

Second, the emissions caps established in the IAQR proposal are not sufficiently stringent. EPA has proposed emission budgets for electric generating units that do not anticipate technological advances that would be expected over the next 10-20 years. The proposed emissions budgets lock in levels for the foreseeable future of emissions based on easily achievable, historical emission control technology, efficiency and electric generation technologies. The proposed EPA "cap and trade" rule for NO_X is similar to the existing NO_X State Implementation Plan Call program for 22 states and serves only to preserve the status quo. It is critical that EPA set tighter caps appropriately at the outset that are consistent with Best Control Technology requirements. If EPA fails to set the appropriate tighter caps now, additional emission reductions will be extremely difficult to achieve and far less cost-effective when regulatory agencies are forced to impose an additional round of controls on the utility industry in the future to meet current clean air standards.

EPA's proposal for NO_X budget allocations corresponds to the sum of that state's historic heat input amounts, multiplied by an emission rate of 0.15 pounds per million Btu (lbs/mmBtu) for 2010 and 0.125 lbs/mmBtu for 2015. Historic heat input is derived as the highest annual heat input during 1999-2002. This approach will permanently reward states with large emission budgets based on historically high emissions from inefficient generation. Basing allocations on heat input rewards fuel inefficiency and should be replaced with a method that is more effective

in promoting greater efficiency and reflects the growth in renewable and cleaner emitting technologies.

In addition, the EPA proposal does not assure that all reasonable and cost-effective reductions are achieved. EPA's approach of applying achievable NO_X limits from coal-fired electric generating units (EGUs) as allowable limits for all other types of EGUs assures that many gas and oil fired units will not be required to make significant reductions even though they are capable of doing so in a cost effective manner. This approach may actually impede efforts to achieve NO_X reductions in the areas where they are necessary to achieve the ozone standard. With a regional "cap and trade" program, allowances generated by the inherently clean units will be shifted to areas such as the Northeast where significant emission reductions have already been made and where additional reductions will be extremely costly.

For example, under the proposed rule, operators of natural gas-fired sources in Texas that already meet the standard for EGUs would actually be allowed to increase NO_X emissions up to 2010. The large number of gas-fired facilities in Texas that are currently operating below the proposed standard and that could, with little expense, make significant emission reductions would have a huge number of allowances to sell to other states. Thus, operators of sources in Texas will be allowed to emit more NO_X from EGU-facilities and will gain an economic benefit, at the expense of other states whose total NO_X emissions are lower but have higher EGU emissions per unit of output.

Although operators of sources in Texas will need only approximately 66,440 tons of allowances after the affected sources are fitted with basic reasonable available control technology (RACT) controls, EPA proposes to issue 224,181 tons of allowances to the state. Pennsylvania estimates indicate that, under the EPA proposal, the operators of sources in Texas will benefit by receiving in excess of 110,000 windfall allowances per year with an estimated value in excess of $270 million per year.

The EPA proposal provides excess allowances that are not only an economic benefit for operators of sources in states such as Texas, but because the operators of the sources will be able to sell the allowances to operators of downwind sources with higher control costs, the public health and air quality benefits will be significantly reduced in downwind areas.

Sources Covered

Third, EPA's proposed IAQR rule does not address other important sources of air pollution contributing to the interstate transport problem. The proposed rule ignores the significant emission contribution from industrial boilers, which, according to EPA's own data, produce 11 percent of the nation's SO_2 emissions and 13 percent of the nation's NO_X emissions annually. Stationary internal combustion engines contribute an additional 12 percent of the nation's NO_X emissions annually.

If the purpose of the proposed regulation is to eliminate transport of air pollutants it fails, as it gives states such as Texas, Louisiana, and others with a large portion of natural gas-fired combustion units no reason to reduce the significant emissions from non-EGU's. The result of the proposed IAQR rule is that Pennsylvania consumers and consumers in many other Northeast states will be forced to subsidize the cost of electricity production in Texas and other natural gas rich states.

Faulty Modeling Analysis

The proposed IAQR will not reduce ozone to the extent necessary to protect public health and meet CAA requirements. Because EPA has given some states overly generous NO_X budgets, allowances will flow to states with more restrictive budgets and reduce near-field NO_X emissions reductions. EPA's proposal may leave more areas in ozone non-attainment than EPA indicates. According to EPA's own analysis (*see* IAQR proposal pgs. 4636-4637 for $PM_{2.5}$; pgs. 4639-4640 for ozone), after the IAQR is fully complied with there will still be areas of the country that fail to attain the eight-hour ozone and $PM_{2.5}$ air quality standards. EPA's Integrated Planning Model (IPM) and ozone modeling analysis show that shifts and increases in emissions by 2010 will result in more ozone exceedances than would occur under the NO_X SIP Call. Footnote 10 in Section X of the *Technical Support Document for the Interstate Air Quality Rule Air Quality Modeling Analyses* (January 2004) indicates:

> "In 2010, the modeling predicts an increase in the number of exceedances. This increase in ozone is caused by local predicted NO_X increases in the IPM model from certain power plants. These power plants were predicted to be controlled under the NO_X SIP call trading program (which is assumed in the 2010 IAQR Base Case). Under the IAQR regional control case, the plants trade under a new trading program which is year-round and expanded to additional states. The predicted emissions patterns from IPM are slightly different under the two trading programs. Therefore, some power plants that were predicted to put on controls under the NO_X SIP call may not be predicted to do so under the IAQR (and vice versa). It is important to note that the overall summer utility NO_X emissions in the States with NO_X SIP call area are predicted to be lower under IAQR than under the NO_X SIP call. So overall, the IAQR will provide regional ozone benefits in the NO_X SIP call area."

Regional emission controls from the proposed rule provide little reduction in eight-hour ozone concentrations for Pennsylvania's eight-hour ozone nonattainment areas. None of the six proposed Pennsylvania eight-hour ozone nonattainment areas listed in Table VIII-2 of EPA's *Technical Support Document for the Interstate Air Quality Rule - Air Quality Modeling Analyses* shows modeled attainment by its expected attainment date. This indicates the proposed emission reductions do not adequately reduce transported air pollution and are not stringent enough to provide any assistance to Pennsylvania in attaining the eight-hour ozone standard.

EPA's modeling suggests that a 25 percent reduction in local NO_X and VOCs would bring most of Pennsylvania's proposed nonattainment areas (5 out of 6) into compliance with the eight-hour ozone standard. Pennsylvania is part of the Ozone Transport Region (OTR) and has implemented control requirements that are generally more stringent than many of the upwind

areas outside of the OTR that contribute to Pennsylvania's eight-hour ozone nonattainment areas. The proposed IAQR will, therefore, require Pennsylvania and other states to develop and implement extremely costly local measures to further reduce ozone precursor emissions to achieve the health-based eight-hour ozone standard.

In addition, EPA's failure to require technically feasible and highly cost effective emission reductions from all sectors will have serious consequences for the states' ability to meet visibility improvement goals. If reductions to achieve the visibility improvement goals for the first planning period (through 2018) of the Regional Haze program are not included in the IAQR, they will be very difficult for states to achieve. The proposed IAQR will limit the ability of states to get additional NO_X and SO_X reductions from the EGUs, and EPA's analysis for the rule indicates that it would be difficult to demonstrate cost effectiveness for non-EGU categories. Therefore, it is imperative that the IAQR set emission caps for EGUs at levels that will assure achievement of the visibility improvement goals as well as the $PM_{2.5}$ and ozone standards.

In this regard, EPA's determination not to regulate non-EGU boilers, turbines and engines is troublesome for several reasons. First, EPA cites a lack of information about SO_2 controls and the integration of NO_X and SO_2 controls as the basis for determining if emission reductions would be highly cost effective. Before EPA proceeds with promulgation of this rule that excludes a significant portion of the national NO_X and SO_X emissions, EPA should complete a cost effectiveness analysis. This assessment should consider the cost effectiveness of integration of the non-EGU sources into the EGU budget or establishment of a separate budget for the sources.

Second, EPA notes that the costs for non-EGU boilers and turbines to comply with NO_X SIP Call Trading Program requirements will increase due to the EGUs no longer being in the trading program. That cost has not been quantified. EPA should provide an analysis of the cost of excluding non-EGU sources from the "cap and trade" program.

The Commonwealth also has concerns about the way in which EPA has conducted the modeling to support the proposed rule. EPA did not follow procedures entirely consistent with the most recent draft guidance for projection of future year concentrations of $PM_{2.5}$ and eight-hour ozone. The major discrepancy relates to the data used. EPA used 1995 episode meteorology; a base-year based, for the most part, on 1996 National Emission Inventory (NEI) data; and monitoring design values based on 2001 information. EPA should have used more recent emission inventory, meteorological and monitoring data and information to conduct the $PM_{2.5}$ modeling. The modeling would be more credible and consistent if it were conducted using the available 2001 meteorological episodes, the 1999 NEI and 1999-2002 monitoring data.

Sulfur Oxide Allocations

Under the proposed IAQR, a number of Pennsylvania waste coal combustor EGUs will not receive SO_X allowances. These are facilities that were not included in the Title IV baseline, but would be covered by the proposed EPA requirements. These facilities should be granted allowances to assure that the operators of the sources can continue to compete effectively.

EPA's failure to consider these sources in its allowance allocations will result in the loss of more than 27,000 tons of allowances for Pennsylvania.

Section 126 Petitions

As is discussed above, the Commonwealth does not anticipate that the proposed EPA approach to reducing interstate air quality will adequately address all interstate air quality transport issues. Therefore, it is inappropriate for EPA to adversely impact the states' ability to utilize Section 126 of the CAA to eliminate the adverse transport impacts that will remain. Accordingly, we urge that EPA retain provisions to review each Section 126 petition on a case-by-case basis.

Pennsylvania has consistently opposed the concept that an upwind state's mere commitment to control emissions obviates a finding that sources in the upwind state are contributing significantly to downwind nonattainment. Pennsylvania submitted comments in 1999 opposing EPA's similar proposal in connection with EPA's January 2000 promulgation of a revised Section 126 Rule and again in 2003 in connection with EPA's proposed withdrawal of its Section 126 Rule.

Nothing in the statutory language of Sections 110 or 126 of the CAA suggests that a source will not be in violation simply because its emissions are consistent with the implementation plan of the state in which it is located. Sections 110 and 126 establish independent means for enforcing the prohibition against contributing significantly to nonattainment, or interfering with maintenance, in a downwind state. This underscores the importance of having extra assurance that sources will not be allowed to interfere with other states' efforts. So does the implementation provision in Section 126(c), which authorizes the EPA Administrator to permit the continued operation of a source if the source complies with emission limitations and compliance schedules that the Administrator provides to bring about compliance as expeditiously as practicable, but in no case later than three years after the date of the Section 126 finding. The source may only continue operation as long as it actually complies with the prescribed remedy. Promises to comply, and promises by an upwind state to enforce compliance, do not suffice.

Just as EPA is not warranted in rejecting Section 126 petitions on the basis of SIP provisions in an upwind state, EPA would not be warranted until upwind sources have actually complied with the Section 126 remedy in concluding that the Section 126 remedy is no longer needed.

Conclusion

The Commonwealth strongly urges EPA to abandon the proposed IAQR and work with the states to develop a program that will assure the expeditious achievement of the ambient air quality standards for ozone and $PM_{2.5}$ in a fair and equitable manner. The Commonwealth endorses the highly cost-effective alternative to the EPA rule developed by the Ozone Transport Commission (OTC) (enclosed). This OTC proposal, unlike the EPA proposal, protects the public health in a timely manner. The essence of the OTC proposal is that: (1) Phase I should be

moved up to 2008 with Phase II effective in 2012; (2) SO_X reductions should be 3.0 million tons in Phase I and 2.0 million tons in Phase II; and (3) NO_X reductions should be 1.87 million tons in Phase I and 1.28 million tons in Phase II.

In conclusion, although the Commonwealth supports federal measures to address interstate air quality issues, the Commonwealth cannot support EPA's proposed IAQR because: (1) the compliance deadlines in the EPA proposal are entirely too long; (2) the emissions caps are too weak to assure an adequate reduction in transported air pollution; (3) an insufficient number of sources are covered; (4) the modeling analysis used to support EPA's analysis of the benefits of the proposed rule is outdated and flawed; (5) the sulfur oxide allocation process penalizes a number of Pennsylvania facilities; and (6) the proposal weakens the important regulatory remedy available to the states for addressing interstate transport under Section 126 of the CAA.

Sincerely,

Nicholas A. DiPasquale
Deputy Secretary for
Air, Recycling and Radiation Protection

Enclosure