Pennsylvania Department of Environmental Protection

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

February 6, 2004

Secretary 717-787-2814

Mr. Donald S. Welsh, Regional Director
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Mr. Welsh:

Thank you for your letter of December 3, 2003, responding to Pennsylvania's recommendations for eight-hour ozone designations. We are pleased that the Environmental Protection Agency (EPA) generally concurred with our recommendations.

Of particular importance to Pennsylvania is EPA's concurrence that Ocean County, New Jersey remain part of the New York City Metropolitan Area and not be included as part of the Philadelphia Metropolitan Area. If this decision were to be reconsidered by EPA, Pennsylvania would request that we be given an opportunity to meet with EPA to discuss the issues surrounding the Philadelphia Area's boundaries, prior to finalization of designations April 15, 2004.

EPA did propose changes to Pennsylvania's recommended designations for five counties. In two instances, EPA changed counties recommended for attainment to nonattainment based on the more recent monitored air quality data for 2001-2003. Pennsylvania concurs that the more recent data for Blair and Tioga Counties show air quality levels just above the health-based standard.

Pennsylvania continues to be concerned about the handling of rural counties that are only in nonattainment due to transport. Tioga County is a typical example. Others are Greene, Clearfield and Franklin Counties. These areas, while adjacent to metropolitan statistical areas (MSA's), are clearly rural and cannot reasonably be expected to find reductions to provide for attainment.

Another change by EPA would make Monroe County part of the Scranton, Wilkes-Barre Nonattainment Area. This county was part of the MSA when one-hour nonattainment designations were made. However, it was not included as part of the MSA in the 1999 or 2003 Office of Management and Budget groupings. Pennsylvania suggests that EPA not include Monroe County in the nonattainment area.

Finally, EPA intends to modify Pennsylvania's recommendation for Lycoming and Indiana counties. We believe these counties would be better designated as unclassifiable/attainment. Indiana County currently does not have an ozone monitor, however Pennsylvania intends to have a new monitor up and running by the beginning of this ozone season. While ozone design values in

surrounding counties are marginally above 84 ppb, the closeness of those levels to attainment indicates we need measured data to confirm nonattainment. For Lycoming County, EPA apparently has not considered the relocation of the Williamsport monitor to nearby Montoursville. With two years of data available from Montoursville (2002, 2003) and one year from the Williamsport site (2001), we believe the county should continue as attainment/unclassifiable. If, at the end of the next monitoring season, the Montoursville site has three years of monitored data showing nonattainment, then it could be appropriately designated nonattainment. Pennsylvania requests that EPA reconsider these counties as more appropriately designated attainment/unclassifiable at this time.

Should you have questions regarding this submission, please contact Joyce E. Epps, Director, Bureau of Air Quality, by phone at 717-787-9702 or by e-mail at jepps@state.pa.us .

Sincerely,

Kathleen A. McGinty
Secretary

bcc: ARM Reading File

Pennsylvania Department of Environmental Protection

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

March 5, 2004

Secretary 717-787-2814

Mr. Jeffrey Holmstead
Assistant Administrator of Air and Radiation (6101)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Holmstead:

On November 10, 2003, I wrote to you requesting a meeting concerning the eight-hour ozone nonattainment boundaries for the Metropolitan Philadelphia Interstate Area. I am now writing to renew my request for a meeting with you prior to Environmental Protection Agency's (EPA's) promulgation of the eight-hour ozone designations by April 15, 2004. Pennsylvania continues to have concerns about New Jersey's position and recommendation that Ocean County, New Jersey be transferred from the New York City Consolidated Metropolitan Statistical Area (CMSA) to the Philadelphia Nonattainment Area for the eight-hour ozone national ambient air quality standard (NAAQS).

In Pennsylvania's initial eight-hour ozone designation recommendations this past summer, we recommended that, as per EPA's guidance, the eight-hour nonattainment area for Philadelphia follow existing boundaries for the one-hour ozone NAAQS. In a subsequent December 3, 2003 letter to Governor Rendell, EPA Region III Administrator, Donald Welsh, indicated in the proposed designations that Ocean County, New Jersey would remain part of the New York City Nonattainment Area. In my response to Mr. Welsh, I highlighted the importance of this decision to Pennsylvania and requested the opportunity to meet with EPA should this decision be reconsidered. In support of Pennsylvania's position, I have enclosed additional information for your consideration.

It has been brought to my attention that EPA may indeed be reconsidering its position, based on the correspondence from New Jersey and Connecticut expressing their continued support for the New Jersey recommendation to transfer Ocean County, New Jersey from the New York CMSA to the Philadelphia nonattainment area. Pennsylvania continues to support EPA's proposed designations outlined in the 120-day letters retaining Ocean County, New Jersey in the New York CMSA. As you must know, attaining and maintaining the eight-hour ozone NAAQS in Pennsylvania, New Jersey, New York and the entire Ozone Transport Region will be challenging enough without disrupting long-standing air quality planning relationships.

I greatly appreciate your interest and look forward to meeting with you at your earliest convenience. If further information is needed, please contact me at the above number or Mr. Nicholas A. DiPasquale, Deputy Secretary for Air, Recycling and Radiation Protection, by phone at 717-772-2724 or by e-mail at ndipasqual@state.pa.us .

Sincerely,

Kathleen A. McGinty
Secretary

Enclosure

cc: Donald Welsh, EPA Region III
Judith Katz, EPA Region III
Nicholas A. DiPasquale

ENCLOSURE

Pennsylvania's Position on Retaining Ocean County, New Jersey as Part of the New York City (NYC) Eight-Hour Ozone Nonattainment Area

Section 107 of the Clean Air Act does not support removing Ocean County, New Jersey from the NYC Consolidated Metropolitan Statistical Area (CMSA) and adding it to the Philadelphia Nonattainment area.

Section 107(d) of the Clean Air Act (CAA) defines a nonattainment area as "any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant." 42 U.S.C. § 7407(d). The implication in subsection (d) is clear: an upwind county that monitors attainment but is causing nonattainment in a downwind county must be designated nonattainment. In choosing a dividing line between the New York City (NYC) and Philadelphia areas, the "nearby" concept is moot because both areas are clearly nonattainment and both areas contribute to nonattainment in the other area. In addition, Section 107(d)(4)(A)(iv) of the CAA explicitly addresses ozone designations. In this sub-paragraph, ozone nonattainment areas classified as "serious," "severe" or "extreme" are revised "...by operation of law to include the entire metropolitan statistical area or consolidated metropolitan statistical area, as the case may be...". In the case at hand, both the NYC and Philadelphia areas are monitoring nonattainment of the eight-hour ozone standard and both areas are metropolitan statistical areas (MSAs) or CMSAs. Therefore, there is no need to extract Ocean County, NJ from the NYC CMSA and add it to the Philadelphia area when Congressional intent is to follow the already established metropolitan statistical area or CMSA boundaries. The existing boundaries for the NYC CMSA including Ocean County, NJ, established by operation of law, should be retained to carry out the mandates of the Clean Air Act.

Redrawing nonattainment areas solely on a downwind contribution basis would usurp various provisions of the Clean Air Act and regulatory guidance that address the effects of ozone transport in the Northeast.

New Jersey is advocating a monitor-based definition of nonattaniment planning areas: pick a monitor, look upwind and draw boundaries. To follow through on this concept, New Jersey suggests that Cecil County, Maryland should be part of the Baltimore Nonattainment Area. Additional analyses could show that all of Delaware, portions of southcentral and southeastern Pennsylvania and portions of southern New Jersey would also be included in the Baltimore Nonattainment Area. Similar arguments would place southern portions of the Baltimore Nonattainment Area in the Washington, D.C.-Virginia-Maryland Nonattainment Area, eastern portions of Connecticut in the New York-Northern New Jersey-Long Island Nonattainment Area and portions of New Hampshire and Maine in the Boston-Lawrence-Worcester Nonattainment Area. Using a monitor-based method of determining nonattainment areas would necessitate a re-evaluation of all of the area designations in the Northeast causing unnecessary delay in the process. This approach also excludes the upwind contributing sources unless one very large nonattainment area is created. Section 107 of the CAA sets up a tension between including upwind sources or the full downwind urban plume, and still retaining manageable planning areas. Historically, these decisions have been resolved by maintaining the integrity of the planning areas.

Modifying the current Philadelphia Nonattainment Area to include Ocean County, New Jersey would disrupt all of the planning structures in place for the previous one-hour ozone standard.

Metropolitan Statistical Areas have been used as nonattainment planning areas for at least 25 years because of the economic ties within an area. Planning agencies have developed around those counties with similar interests and common concerns. Breaking these traditional groupings would delay and disrupt the eight-hour ozone planning process. In addition, keeping metropolitan planning organization and nonattainment boundaries consistent fosters smooth transportation planning for air quality; disrupting those boundaries is needlessly complicated and counterproductive.

The 2003 eight-hour ozone design value for Ocean County, New Jersey falls within the "Moderate" range and is identical to most designations in the I-95 corridor and is not significantly different from the 103 ppb design value in eastern Connecticut.

The monitored 2003 eight-hour ozone design value for Ocean County, NJ is 106 ppb. This design value does not include ozone concentrations for July 8 and 9, 2002. It is our understanding that New Jersey will invalidate ozone data from these two days because of an "exceptional event" due to the aftereffects of the northern Quebec forest fires. Several states, including Pennsylvania, have invalidated ozone data for these dates. Speciation data from various monitors in the Philadelphia region indicated unusually high organic carbon loads due to the northern Quebec forest fires on both of these dates. High organic carbon loads lead to unusually high ozone production for both days, thus invalidating the ozone measurements. Ocean County, NJ's eight-hour ozone design value for 2003 would place the New York City CMSA in the "Moderate" classification category based on the proposed eight-hour ozone implementation rule. Should Ocean County be excluded from the NYC area, the design value for the NYC CMSA would only change 4 ppb to 102 ppb based on 2001-2003 monitored data. Thus, the classification for the NYC CMSA would still be "Moderate." One significant benefit of keeping Ocean County in the NYC CMSA would be that with identical classifications for the NYC, Philadelphia and Baltimore Areas, planning/modeling efforts for the Ozone Transport Region (OTR) would have identical attainment deadlines. Retention of Ocean County, NJ with the NYC CMSA will also allow these areas that have already adopted emission controls, including the CAA Subpart II mandatory measures for "severe" ozone nonattainment areas, to have the flexibility to find innovative but appropriate solutions to provide for attainment.

The ability of New Jersey and Pennsylvania to achieve and maintain the eight-hour ozone standard extends beyond metropolitan area boundaries. New Jersey has referenced the lessons learned about ozone, citing work of both the Ozone Transport Assessment Group and the National Academy of Science. We understand the lessons learned, but believe the works clearly demonstrate that in the Northeast, nonattainment solutions extend beyond mere metropolitan areas. In fact, the OTR, established by operation of law under Section 184 of the Clean Air Act Amendments of 1990, was established to develop and recommend control strategies for mitigating the interstate transport of ozone. Congress specifically created the OTR and established a mechanism to require additional control measures if a state's Implementation Plan did not adequately meet the requirements of Section 110(a)(2)(D) of the Clean Air Act. 42 U.S.C. § 7410(a)(2)(D). A mere change in MSA or CMSA boundaries in the OTR will not ensure attainment. No single county, metropolitan area, state or region can solve this protracted ozone nonattainment problem. Hence, the Northeast Ozone Transport Commission (OTC) was

convened and authorized by Congress to "develop recommendations for additional control measures to be applied within all or a part of such transport region if...such measures are necessary to bring any area in such region into attainment...". 42 U.S.C. § 7511c(c)(1).

EPA's "Draft Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the Eight-hour Ozone NAAQS" technically demonstrates that modeling of an MSA is not adequate.

It is clear from the methodology given in Section 13 (entitled, "What Should I Consider When Selecting A Modeling Domain And Its Horizontal/Vertical Resolution?") of EPA's draft guidance, that an urban scale analysis (metropolitan area) will not suffice and a larger modeling domain is required. In fact, the OTC is proceeding with the development of attainment planning modeling that will encompass the entire Northeast and beyond. Contributors to nonattainment will be addressed for all locations and for numerous high ozone days. Attainment in Ocean County, NJ and throughout the OTR will be challenging, requiring local, regional and multi-regional solutions.

Pennsylvania, like New Jersey, generally adopts regulations statewide. Pennsylvania has adopted statewide stringent OTC control measures, including consumer products, architectural and industrial maintenance coatings and portable fuel container requirements, to reduce volatile organic compound emissions. However, New Jersey has not yet adopted these OTC measures.

Based on Pennsylvania's extrapolations of EPA's CAMx results, emissions from the Philadelphia Nonattainment Area make a much smaller contribution to New Jersey's modeled nonattainment problem than New Jersey has suggested.

New Jersey has presented results from CAMx, a photochemical grid model, showing contributions to New Jersey's ozone problem from surrounding states. These results are summarized below:

- Pennsylvania contributes 25% of New Jersey's ozone.
- Maryland, Delaware, and D.C. contribute 17% of New Jersey's ozone.
- Less than 2% of New Jersey's ozone is from New York or Connecticut.
- Emissions from local New Jersey sources contribute 30% of New Jersey's ozone.

Given these results, Pennsylvania believes adopting regional controls would be more effective than revamping additional nonattainment areas in the Northeast via the monitor-based methodology advocated by New Jersey.

We can estimate the effects of emissions from the Philadelphia Nonattainment Area (NAA) if we assume they are proportional to the total NOx and VOC emissions from the portion of the Philadelphia NAA for each state. For example, the portion of Pennsylvania's contribution would be the total NOx and VOC emissions from its portion of the Philadelphia NAA (Bucks, Chester, Delaware, Montgomery, Philadelphia) over Pennsylvania's total NOx and VOC emissions. This result would then be multiplied by the CAMx figure for Pennsylvania to determine the approximate contribution from Pennsylvania's portion of the Philadelphia NAA. This calculation would be repeated for each state included in the CAMx summary.

We have performed this analysis, using state and countywide NOx and VOC emission totals from the 1999 National Emission Inventory. Tables 1 and 2 summarize NOx and VOC emissions from each state and the portion from each state within the Philadelphia NAA.

Table 1.

State Emission Summary:

State	NOx Total	VOC Total	NOx + VOC
PA	903630	647799	1551429
NJ	428130	470941	899071
DE	63416	50164	113580
MD	344707	282006	626713
DC	15448	19138	34586
Phila. NAA	325111	337625	662736

Table 2.

Philadelphia NAA Emission Summary:

State	Counties	NOx Total	VOC Total	NOx + VOC	% State Total	% Phila NAA Total
PA	Bucks, Chester, Delaware, Montgomery, Philadelphia	143285	155983	299268	19.3%	45.2%
NJ	Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Salem	129444	137618	267062	29.7%	40.3%
DE	Kent, New Castle	46698	37278	96406	12.4%	14.5%
DC						
MD	Cecil	5684	6746			

Multiplying the percent (%) State Total column from Table 2 by the state contribution calculated by CAMx will yield an estimate of the Philadelphia NAA's effect on New Jersey. Thus, the Pennsylvania portion of the Philadelphia NAA's effect would be calculated as follows:

CAMx contribution from PA x % PA emissions from Philadelphia NAA

0.25 x 0.193 = 4.8%

Table 3 summarizes the results for the remaining contributions from the Philadelphia NAA.

Table 3.

Estimated Effects of the Philadelphia NAA on New Jersey:

State(s)	CAMx Contribution	% of State's Emissions within Philadelphia NAAA	Estimated Contribution
PA	0.25	0.193	4.8%
NJ	0.30	0.297	8.9%
DE, DC, MD	0.17	0.124	2.1%
		Total Estimated Contribution from Philadelphia NAA	15.8%

Results from Table 3 indicate that the Philadelphia NAA's contribution to New Jersey's ozone problems is much less than the total Pennsylvania contributions cited. Thus, it is clear that emission controls in the Philadelphia NAA alone will not be enough to attain the eight-hour standard. Pennsylvania believes adopting regional controls will be more effective in attaining the eight-hour ozone standard than revamping additional nonattainment area boundaries in the Northeast via the monitor-based methodology advocated by New Jersey.

Conclusion

In summary, Pennsylvania continues to believe that emissions from sources in Ocean County, NJ contribute more to air quality in the NYC area than to the Philadelphia area. Ocean County, NJ is also more closely tied to the NYC metropolitan area economically. Therefore, Ocean County, NJ should remain in the existing NYC CMSA ozone planning area. It is undisputed that emissions from the Philadelphia area contribute to the air quality levels in Ocean County, NJ and the entire NYC area. As required by law, this contribution will need to be addressed in the attainment plans developed by all parties in conjunction with the Ozone Transport Commission and in the specific attainment plan for the Philadelphia nonattainment area, as was previously done for the one-hour standard. The fact that emissions from the Philadelphia area contribute to ozone concentrations in Ocean County is not an adequate reason to remove Ocean County from the NYC nonattainment area and add it to the Philadelphia nonattainment area. To do so would require extending the Philadelphia nonattainment planning area to northern New Jersey and portions of NYC. Similar logic would require that the Baltimore area be made part of the Philadelphia nonattainment area. Essentially, this approach would result in a planning area that would cover the Ozone Transport Region or at least the entire Washington to Boston corridor. Pennsylvania believes that the Clean Air Act intended such larger planning issues to be dealt with by the Ozone Transport Commission and not by creating new artificial boundaries and areas to replace MSAs.