



October 5th, 2007

TO: Docket ID No. EPAHQOAR20050172

RE: Environmental Protection Agency,
National Ambient Air Quality Standards for Ozone,
Proposed rule, 40 CFR Part 50, July 11, 2007

Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Rhode Island

Vermont

Virginia

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The Ozone Transport Commission (OTC) appreciates the opportunity to comment on the U.S. Environmental Protection Agency's (EPA's) July 11, 2007 proposed rule to revise the National Ambient Air Quality Standard (NAAQS) for ozone.

The OTC was created by Congress under the Clean Air Act Amendments of 1990 to coordinate ground-level ozone pollution control planning in the Northeast and Mid-Atlantic region of the U.S. Members of the OTC include: Connecticut, Delaware, the District of Columbia, Maine, Maryland, New Hampshire, New Jersey, New York, Massachusetts, Pennsylvania, Rhode Island, Virginia, and Vermont.

OTC is following the EPA's progress toward establishing a NAAQS with great interest and concern. As an ozone centric organization, we have a profound understanding of its importance, and are conducting a careful review of the proposed rule with our member states. As EPA moves forward with a new primary and secondary ozone NAAQS, EPA must recognize that ozone is a regional problem, not a local one, particularly in the northeast and mid-Atlantic states. Transport of pollutants and their precursors across large geographic areas must be considered in order for downwind areas to have any possibility of attaining national standards. Much of the ozone that our residents breathe is formed in the atmosphere, downwind from the emission source. As a result, residents of the Ozone Transport Region (OTR) not only suffer from pollution created within the region, but also from precursor emissions and ozone transported from upwind states.

Science and Process

In establishing the ozone NAAQS, OTC advises EPA to follow the provisions of the Clean Air Act (CAA), which calls on EPA to rely on the science and CASAC recommendations in setting both the primary and secondary NAAQS. OTC supports the work of the CASAC and urges EPA to give great weight to its recommendations.

OTC is concerned that EPA has subverted the standard-setting process that the Clean Air Act lays out for proposing a new NAAQS in two significant ways. First, EPA proposes a range between .070 and .075 parts per million (ppm) rather than a specific limit for the primary standard. Second, the EPA's proposal has only one point of intersection with the upper bound of CASAC's recommendation. The CASAC indicates that, in accordance with the latest scientific studies, the NAAQS would need to be within the range of .060 to .070 ppm to protect public health with an adequate margin of safety. The EPA proposal fails to follow the strictly science-based recommendation of this independent body of scientific advisors. This practice has alarmed several state environmental regulators, and was addressed by James Werner, Director of the State of Delaware Air and Waste Management Division, Department of Natural Resources and Environmental Control, in his testimony before Congress where he stated:

“After 28 years and dozens of major recommendations, it is troubling that EPA has diverged twice from CASAC recommendations in as many years. The PM 2.5 standard proposed in January 2006 and finalized in October 2006 was the first time EPA failed to heed to recommendations of the CASAC. In this case of the PM2.5 standard, EPA highlighted the lack of a unanimous consensus among CASAC panel members, although only two out of 22 members dissented.”¹

Unlike the PM2.5 standard, CASAC was unanimous in its recommendation for the ozone NAAQS, yet EPA still chose to diverge from their recommendation for the revised ozone

¹ Statement of James D. Werner, State of Delaware Director, Air and Waste Management Division Department of Natural Resources and Environmental Control “Review of EPA's Proposed Revision to the Ozone NAAQS” Before the Senate Committee on Environment and Public Works Subcommittee on Clean Air and Nuclear Safety. July 11, 2007.

standard. Additionally, EPA has left the door open for retaining the current standard, clearly above a health-protective level, by asking for comments on that option. The acute and chronic damage to human health evidenced in the studies examined by the CASAC will not be averted if EPA does not give more weight the CASAC recommendations.

Health Impacts

The need for an adequate margin of safety when revising the ozone NAAQS is demonstrated by the established peer-reviewed literature on the health effects of ozone, additional chronic ozone exposure concerns and long term impacts of climate change.

The CASAC recommendations are based on peer reviewed health studies that relate high ozone levels to increased mortality. In his testimony to Congress on July 11, 2007, EPA Administrator Stephen Johnson indicated his understanding of several acute ozone exposure outcomes covered by the CASAC report, including “increased asthma medication use, school absenteeism, and premature mortality in those with preexisting heart and lung disease.” Yet the Administrator still did not follow the CASAC recommendation. In its review of the ozone standard, CASAC cited recent single-city and multi-city studies that show significant health impacts, including morbidity and mortality, from ozone concentrations much lower than the current standard, and recent clinical studies that show adverse lung function impacts in individuals at ozone levels as low as .060 ppm.²

OTC contributed funding for recent analysis by the Northeast States for Coordinated Air Use Management (NESCAUM) using the Environmental Benefits Mapping and Analysis Program (BenMAP) show significant reductions in mortality and morbidity due to potential air quality improvements associated with implementing the CASAC primary ozone NAAQS recommendations. For example, the combination of avoided hospital admissions, asthma emergency room visits, school loss days, decreased worker productivity and reduced mortality from attainment of a 70 ppb standard could result in a total 107 to 498 million dollar benefit in the OTR in 2018. A more stringent 60 ppb proposed standard could result in a 394 million to 1.7

² Dr. Rogene Henderson, CASAC Chair Letter to the Honorable Stephen L. Johnson regarding CASAC’s Peer Review of the Agency’s 2nd Draft Staff Paper, (Oct. 24, 2006).

billion dollar benefit when compared to the current standard. This does not include additional benefits from reducing the long term effects of ground-level ozone pollution, such as those related to chronic exposure, which are not yet fully studied in the scientific literature. This evidence supports a more stringent ozone standard than that currently proposed by EPA.

In addition, EPA should examine the impacts that climate change will have on how people experience poor air quality. Not only is it possible that increased temperatures from climate change can increase the number and severity of ozone episodes, recent evaluation in the North East Climate Impact Analysis has also shown that ozone pollution will be more harmful when combined with pollen increases associated with climate change. The study states, “As both temperatures and ambient CO₂ levels rise, increases would be expected across the Northeast in both the production of pollen grains and, potentially, the allergenic potency of individual pollen grains. This in turn may exacerbate wind-borne, plant-based allergies across the region and increase exposure to pollen associated with respiratory problems. Combined with other global warming influenced factors such as air pollution, an increase in airborne allergens would likely translate into an increase in the incidence and severity of asthma and other allergic diseases in the Northeast.”³

Secondary Standard and the Environment

Plant species are an essential part of the livelihood of our citizens and should be protected from harmful air pollution. Recent work by the New York Department of Environmental Conservation (NYSDEC) is relevant to EPA’s examination of an appropriate standard. By comparing the observed ozone values with observed plant damage, NYSDEC demonstrated that a 12-hour, 7-21ppm-hrs secondary standard is not protective of the plant community in a comparison of observed ozone values with observed plant damage. They used ambient ozone values for 2006, a particularly bad ozone year, and showed that none of the areas studied would have violated a 12 hour 7-21ppm-hrs secondary standard. Nevertheless, a plant survey conducted in the same area by the U.S. Forest Service used the ozone damaged plants in the area

³ Northeast Climate Impacts Assessment (NECIA), “Confronting Climate Change in the U.S. Northeast: Science, Impacts, and Solutions”. July 11, 2007.

as a guideline for their manual on ozone foliar injury identification.⁴ The NYSDEC study and the US Forest Service's survey suggest that EPA's proposed 12-hour secondary standard will not protect plant species.

Protecting plant populations from harmful pollutants with a properly established secondary ozone standard is also important to mitigating the impacts of climate change. As the impacts of ozone on climate change were not examined by EPA in the context of setting a revised secondary standard, these benefits will be additional. A study published by Nature magazine predicts that poor air quality will reduce the ability of plant populations to serve as a carbon sink, resulting in a 15 billion ton increase of carbon dioxide in the atmosphere. The study explains that:

“Some ecosystem models had predicted that the rise in CO₂ expected over the coming century might be offset by the expected boost in the growth of forests and swamps. But factoring in ozone means that it looks less likely that this carbon sink will grow fast enough to keep pace with the increasing emissions.”⁵

Cost Considerations

It is paramount that EPA set the ozone NAAQS at a level necessary to protect the public health and welfare, with an adequate margin of safety, and without consideration of economic impacts. This is set forth in the CAA and was affirmed by the U.S. Supreme Court in *Whitman vs. American Trucking Association, Inc.*⁶ Economic issues are important, but are to be taken into consideration as part of the implementation of a new NAAQS rather than in the standard setting stage. Cost considerations only apply after the new ozone standard is set, and then are considered in selecting among various strategies to meet the revised primary and secondary standards.

However, shortly after EPA announced the proposal for a new ozone standard, the agency issued its associated regulatory impact analysis (RIA), which includes cost information. Although EPA

⁴ Kohut, Robert. “Handbook For Assessment of Foliar Ozone Injury on Vegetation in the National Parks” Cornell University, September 2005.

⁵ Hopkin, Michael. *Nature* 448, 396-397, July 26 2007.

⁶ *Whitman v. American Trucking Associations, Inc.*, 531 U.S. 457 (2001)

reiterated that it did not use the cost analysis in selecting the proposed ozone standards, publication of such cost calculations during the comment period is a distraction to the key issue of public health. Nevertheless, we note from the RIA that in a comparison of the average of the range of EPA's estimated benefits with the average of the range of estimated costs, the benefits of a revised NAAQS would significantly outweigh the costs. We also note that while the RIA purports to assess the overall societal costs of new controls required to achieve a new standard balanced against the health benefits of the standard, EPA has seriously undermined that assessment by eliminating from consideration any reductions that go beyond EPA's Clean Air Interstate Rule. The RIA already excludes, as a matter of policy, any additional controls from the electric generating sector, which are cost-effective compared to many other control options.

At the 2007 OTC Special Meeting, the Commission issued a Statement on Multi-Pollutant Emission Control of Electrical Generating Units addressing this matter:

“The Ozone Transport Commission (OTC) continues to assert that further emission reductions from Electrical Generating Units (EGUs) beyond the levels in the federal Clean Air Interstate Rule (CAIR) are cost effective and would produce substantial health benefits.”⁷

The benefits from the implementation of the OTC NO_x MOU (1999) and the subsequent USEPA NO_x SIP Call (2003) have resulted in significant improvements in ozone air quality in the region. With the implementation of additional measures, including ozone control measures specified in the OTC Resolution 06-02, the air quality will continue to improve. OTC is conducting a BenMAP analysis of a beyond CAIR emission reduction strategy for the electric generating unit sector to demonstrate the additional health care benefits from such a strategy and compare them to the control costs.

Implementation and Solutions

As we prepare for new requirements, states will rely on EPA to address ozone transport through cross boundary coordination, federal funding and national leadership in implementing programs

⁷ Ozone Transport Commission, “Statement on Multi-Pollutant Emission Control of Electrical Generating Units”, Adopted March 2, 2007.

on a regional and national level. A critical issue in the implementation of any new ozone standard that addresses the regional nature of the ozone problem is the designation of regional non-attainment areas. In designating ozone non-attainment areas, it is critical that EPA look at ozone air sheds in the largest geographic area. While the non-attainment areas are bounded by Consolidated Metropolitan Statistical Areas (CMSA) and state lines, an appropriate non-attainment area designation scheme should allow for a broad enough area to be identified as affecting its status such that most, if not all, sources contributing to the non-attainment status of the area are required to reduce emissions.

Another critical consideration in the implementation of a new ozone standard is to identify and implement cost-effective controls on a National and regional basis, since local controls alone will not achieve attainment. EPA recognizes in its proposal that ozone is a regional problem; however the Agency continues to focus its attention on local controls. OTC analysis has shown that more stringent and timely emissions limits, fuel standards, and broader, tighter caps on pollutants in trading programs would yield significant air quality benefits in our region. For example OTC encouraged EPA to move ahead quickly with a new clean regional fuel program consistent with the recommendations of the Administration's Fuels Task Force.⁸ Support for these programs would give much needed relief to the millions of residents in the northeast that are breathing polluted air. Additionally, States will need assistance, resources and tools from EPA to ensure the effective implementation of any new ozone NAAQS.

OTC has already advised EPA on several options for additional reduction strategies that are available from several source categories. One example of such a strategy is the recent focus many OTC states have placed on getting reductions on high electrical demand days. On high electrical demand days (HEDD) emissions from the operation of EGUs generally have not been addressed under existing air quality control requirements. These units are called into services on the very hot days of summer when air pollution levels are highest, and these states are working with the industry to identify actions that can be taken to reduce their HEDD emissions.

⁸ Ozone Transport Commission, "MISC 06-04 Concerning Regional and State Measures to Address Emissions from Mobile Sources", Adopted June 7, 2006.

OTC has identified several other cost effective ozone precursor emissions reductions strategies from stationary, mobile and areas source categories, and has moved forward with measures for many of them. However, several of these control measures would be best implemented on a national level, and as national programs, would prove even more environmentally significant in reducing ozone formation.⁹ EPA leadership in the development of national control measures that reduce ozone formation is critical to achieving current as well as future air quality standards.

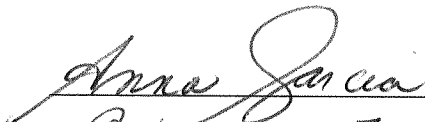
Closing

Protecting the public health by relying on science and innovation demands that reductions in ozone and its precursors be a top priority for EPA and our states. With nearly two decades of experience in dealing with this issue, the OTC has ideas and suggestions on how to address meeting a tighter ozone standard which we will be glad to share as implementation guidance is developed once the standard is adopted. This will require a renewed partnership between the states and federal government, since there are cost-effective area-wide controls available to the federal agencies to effectuate that individual states are precluded from undertaking by law or for other reasons.

We encourage EPA to follow the recommendations of CASAC in finalizing the ozone NAAQS, and to consider our other specific recommendations provided in these comments the Agency develops the final rule. We stand ready to work with EPA to achieve healthful air as expeditiously as possible.

OTC appreciates the opportunity to submit these comments and welcomes discussion on this matter. Please contact Seth Barna (202) 508-3012 with questions.

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Ozone Transport Commission



Oct 5, 2007

⁹ Ozone Transport Commission, Resolution 06-03, "Concerning Federal Guidance and Rulemaking for Nationally Relevant Ozone Control Measures", Adopted June 7, 2006.