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PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

March 17, 2015

United States Environmental Protection Agency
EPA Docket Center (EPA/DC)
Mail Code 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attention: Docket ID No. OAR-2008-0699

Re: Federal Register/Vol. 79, No. 242/Wednesday, December 17, 2014/National Ambient Air Quality Standards for Ozone

To Whom It May Concern:

Thank you for the opportunity to provide comments on the notice entitled "National Ambient Quality Standards for Ozone."[1] The South Carolina Department of Health and Environmental Control (Department) is the regulatory agency responsible for promoting and protecting the health of the public and the environment for the State of South Carolina. We strive to fulfill our responsibilities in the most effective and efficient manner possible.

The Department is pleased to see that the Environmental Protection Agency (EPA) is soliciting comments on implementation in the proposed NAAQS rule. However, the Department is very disappointed with the statement that although "...the EPA solicits comment on several issues that the agency anticipates addressing in future guidance or regulatory actions to assist with implementation..." the EPA "...does not expect to respond, nor is the agency required to respond, to these comments in the final action on this proposal."[2] The Department strongly believes that the EPA should accomplish the goal of soliciting comments by considering *and responding* to every substantive comment submitted. As an alternative, a supplementary proposal should be published allowing the public to comment on all aspects of the rule, with an appropriate extension or renewal of the comment period, and assurance that the EPA will respond to significant comments. Our concern is that these implementation provisions will be promulgated in the final rule without the full public notice requirement, which includes EPA's response to the public's significant concerns as expressed in submitted comments.

[1] 79 FR 75234 (December 17, 2014)
[2] 79 FR 75234, page 75370, first column

Primary and Secondary National Ambient Air Quality Standards (NAAQS)

The Department supports the present form of the NAAQS and the continuity that this provides. The present design value metric, often abbreviated as MDA8, has been in use for both the primary and secondary standards since the 1997 revision. It is well understood by scientists and regulators alike, and is widely accepted among the general public. There is no compelling reason to change it unless another metric is proved to have unique advantages in representing ambient ozone concentrations as they affect public health and welfare. Through the history of the ozone NAAQS, starting with the first (1971) standard, primary and secondary standards have been set to the same value in the same metric, though the metric itself was changed from a 1-hour average to MDA8. This simple measure has afforded public welfare the same level of protection as public health, and greatly facilitated administration of the NAAQS.

Regarding the secondary standard, the Department strongly supports the EPA's proposal to make the secondary standard identical in quantity and metric to the primary standard and not implement the W126 form. If the secondary standard were chosen to be different in level and/or measurement metric, it will further complicate and impede the permitting process and conformity determinations, requiring more resources for the Department to carry out its duties.

Background levels

South Carolina ozone design values from the years 2005 through 2014 show a steadily declining trend. Our monitors continue to meet the ozone NAAQS as it has been reduced from 0.08 ppm to 0.075 ppm. As the NAAQS is further reduced, the Department is concerned about the increasing proportion of naturally occurring background ozone in monitor readings. It is evident that the Clean Air Scientific Advisory Committee (CASAC) has also considered background in the context of primary and secondary ozone NAAQS, referring to it as "an important issue in the CASAC deliberations."[3] The Department believes that the EPA should provide more information to CASAC and its state partners on background ozone; perhaps even developing a relevant policy on background levels that the EPA can use as a basis for evaluating revisions to this and future NAAQS. If not now, an in-depth study of background levels is needed before the next five-year NAAQS review cycle begins.

Air Quality Index (AQI)

The Department supports the EPA's proposal to revise the reporting requirements to the latest census estimates. This will synchronize the AQI reporting requirements with the network design requirements found in 40 CFR Part 58, Appendix D.

As a related matter, the significant harm level for criteria pollutants (40 CFR 51.151)[4] has not been revised since 1987. From a statutory standpoint, the value for ozone is still set at 0.6 ppm

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[3] Letter EPA-CASAC-14-004 (June 26, 2014), "CASAC Review of the EPA's *Second Draft Policy Assessment for the Review of the Ozone National Ambient Air Quality Standards*"

[4] Section III of the Proposed Rule, page 75311, first column, makes reference to 40 CFR 51.16. No such paragraph exists; the correct reference is 40 CFR 51.151.

(600 ppb) as a 2-hour average. Considering the great body of research done in the last 28 years, the Department believes this value should be reviewed and possibly revised. Further, there is no significant harm level given in 40 CFR 51.151 for fine particulate ($PM_{2.5}$) which was not a criteria pollutant at the time this section was last revised.

Interpretation of the Primary and Secondary Ozone NAAQS

The Department agrees with and supports the EPA's proposal to use zero for data substitution when determining if a daily maximum 8-hour ozone average fails to meet data completeness requirements. The current practice of substituting one-half of the Method Detection Limit (MDL) introduces unnecessary variability into the calculations, especially when looking at data from other states. This will apply a consistent methodology and allow data users to accurately replicate the EPA's calculations.

The Department supports the EPA's proposal to generate site level records for ozone monitoring sites with more than one ozone analyzer. This proposal will align the data handling requirements with other criteria pollutants, simplifying manual calculations for analysis.

The Department generally agrees with the EPA's proposal to change the procedures for calculating the daily maximum 8-hour ozone average, but believes that the proposal adds a level of complexity that might be unwarranted. The reason for this change is to avoid situations where elevated ozone plumes overnight causes a daily maximum on two consecutive days. This new procedure would adjust the number of 8-hour rolling averages that are needed to determine if a day had "complete" monitoring. The reduction in the number of possible 8-hour averages could lead to a decrease in the number of complete days. Under the proposed rule, 13 hours of a possible 17 hours are required in order to deem a day "complete." Biweekly audits, quarterly calibrations, and maintenance on the monitors could lead to a decrease in the number of complete days. Currently, the EPA requires that a design value have 90 percent data completeness for three years with no single year less than 75 percent complete. This is unique to ozone and the Department believes that the new definition of an "ozone day" could make it difficult to meet the revised data completeness requirements. The Department suggests that the EPA align the data completeness requirements with the other criteria pollutants (75 percent completeness for a design value) if it wishes to pursue excluding overnight 8-hour averages to avoid double counting exceedances.

Exceptional Events

The Department supports the schedule as proposed by the EPA. This proposed schedule is consistent with previous NAAQS revisions for ozone and other criteria pollutants.

Monitoring

The Department understands the need to constantly reevaluate data generated by a monitoring network in order to make policy decisions. As a result of this need, the EPA[5] conducted an analysis of ozone concentrations greater than or equal to 60 ppb from 2010 – 2013 in order to

[5] Rice, J. Ozone Monitoring Analysis: Memorandum to the Ozone NAAQS Review Docket, EPA-HQ-OAR-2008-0699.

examine if there was a need to make changes to the ozone monitoring season. The ozone monitoring season for South Carolina currently runs from April through October. Based on this analysis, the EPA is proposing to extend ozone monitoring season by one month to include March. The Department has some reservations about the manner in which this analysis was conducted. While the results speak for themselves, the Department believes that the years included in the analysis as well as the definition of "year-round" are arbitrary.

Four years appears to be an unusual number of years to analyze especially given that a design value (the metric which is used to compare to a NAAQS) is comprised of three consecutive years of data. With other criteria pollutants, data is considered complete when there is roughly 75 percent data capture. The use of 20 days in each of the twelve months minimally captures only 65 percent of the total data possible. Additionally, the use of 20 days in a month equates to approximately 65 percent data capture in a month of 31 days, 67 percent in a month of 30 days, 69 percent in a month of 29 days, and 71 percent in a month of 28 days. The selection of 20 days per month was not explained in the memorandum and the EPA should provide further rationale for this choice.

Furthermore, the use of 60 ppb to determine an "exceedance" appears to be arbitrary. Even if we consider that the EPA is accepting comments down to 60 ppb for the level of the proposed NAAQS, typically an area only violates a NAAQS if it exceeds the level of the standard. If this were the case, the EPA should not have included 60 ppb in its analysis. Finally, the EPA stated that a reason for making changes to the ozone monitoring season was to provide regional consistency. Regional consistency is not a scientific reason for making this change. There are significant geographical, meteorological, and demographic differences between South Carolina and neighboring states that may not warrant identical monitoring seasons.

Network Design

As a part of these revisions, the EPA proposes to add new network design requirements to areas designated as nonattainment with the proposed ozone NAAQS. Specifically, the EPA proposes that a Photochemical Air Monitoring Station (PAMS) be placed in any designated nonattainment area which contains a National Core (NCore) monitoring station. Also, for any other designated nonattainment area, an "enhanced" monitoring plan is to be developed in order to assist states with understanding the mechanisms of local ozone formation.

The requirement to add these additional, non-criteria pollutant monitors appears to be an unfunded research experiment. As stated in many of the Department's previous comment letters on other criteria pollutants and monitoring related proposals, if the EPA is requiring these monitors, then it must provide sufficient additional funds to cover both capital and operational costs to meet these new, unfunded mandates. Monitoring budgets are already stretched to the limit due to the replacement costs of existing monitors/samplers.

Furthermore, the Department questions the need for an auto-gas chromatograph (auto-GC) to measure continuous volatile organic compounds (VOC). The Southeastern United States is dominated by biogenic VOC emissions and we question the benefits of an auto-GC in understanding ozone formation in any potential nonattainment area in our State.

Finally, the EPA should take into account the space that might be necessary to add additional parameters to existing or new sites to meet these proposed network design requirements. It may be impractical in some cases for all of the desired instrumentation to be deployed at every site. Typically, our ozone monitoring stations have extremely small footprints. Additional instruments (such as a radar wind profiler, etc.) may not be able to be installed in the same location as an ozone monitor due to the space required. The Department supports the EPA's efforts to work with the National Weather Service to determine if upper air instrumentation located at airports can meet the needs of these new network design requirements.

Implementation

The Department appreciates the EPA's announced intent to provide area designation guidance four months after promulgation of the NAAQS, but believes that this guidance, and other implementation guidance, should accompany the final rule in October, 2015. The recent court decision *NRDC v. EPA*[6] has eliminated the one year grace period between designation of a nonattainment area and applicability of conformity rules. Thus, it is important that states have the guidance needed to make designation recommendations as soon as possible after the NAAQS is promulgated. Other aspects of implementation should also have early EPA guidance. If new state regulations are required, there is a significant and often lengthy lead time for drafting, public notice, and legislative approval. Simultaneous publication of the final NAAQS rule and implementation guidance will help achieve timely promulgation of needed regulatory changes at the state level.

In section VII. C. of the proposal, the EPA refers to Section 107(d)(1) of the Clean Air Act (CAA), which requires each area of a state be recommended by the Governor as nonattainment, attainment or unclassifiable. The EPA has frequently designated areas as "unclassifiable/attainment."[7] The hybrid unclassifiable/attainment category puts doubt in the minds of the public whether their area is actually achieving the NAAQS. Furthermore, this can also lead to confusion when areas are designated just "unclassifiable" and how/why said area is redesignated to "attainment." The Department believes that the public is best served if the EPA designates areas according to the three distinct and separate category classifications referred to in the CAA.

The EPA makes reference to Community Multi-scale Air Quality (CMAQ) and Comprehensive Air Quality Model with extensions (CAMx) modeling in Section VII.A.4. (page 75374) in connection with nonattainment area planning requirements. Running these models consistent with guidance[8] demands a considerable amount of computing equipment and specialized technical knowledge. In order to conduct attainment modeling using the CMAQ or CAMx models, states must be equipped with cluster computing technology, large data storage devices, and technical expertise. Equipment and personnel to conduct modeling are expensive, and require resources that SC does not presently have. The Department requests that the EPA make

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[6] U.S. Court of Appeals for the D.C. Circuit, No. 12-1321, decided December 23, 2014

[7] See for example, 77 FR 30088 (May 21, 2012), "Air Quality Designations for the 2008 Ozone National Ambient Air Quality Standards"

[8] "Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze," December 3, 2014.

requisite funds available to state and local air quality programs to facilitate this and State Implementation Plan (SIP) planning in general. However, before additional funding is requested for SC to fulfill our responsibility to attain a more protective ozone standard, Congress should allow EPA to implement the updated formula for section 105 state air grants. EPA is currently using a 1990s-era allocation formula although the CAA directs EPA to update the formula to reflect changing conditions and air quality resource needs. As EPA has stated, a revision of this formula is necessary to target resources to the most pressing air quality problems. Each year of delay in transitioning to a new, legally and technically sound formula is unfair and costly to SC and many other states that have been waiting for ten years or longer for EPA's state grant formula to catch up with reality.

Emission Offsets

The Department believes emission offsets is a critical element that should be dealt with in the final NAAQS rule, rather than the implementation rule. One reason for this concern is the advance planning required for areas likely to be designated nonattainment. Considering the importance placed in the CAA on offsets in reducing ozone levels for timely attainment, delaying guidance on offsets risks delaying progress, possibly leading to bump-ups in classification. The Department would like to see interprecursor offset substitution, as discussed in the 2008 ozone implementation final rule[9], adopted in the 2015 ozone NAAQS final rule. This is helpful in allowing areas that are either NO_x or VOC-limited in reducing the pollutant contributing the most to their local ozone problem. For example, in South Carolina we will obtain greater ozone reductions by offsetting VOC increases with NO_x reductions. Equally important, the adoption of such measures should be simultaneously accompanied by guidance in their application, including the proper ratios for using ozone precursors in interpollutant trading as offsets.

A more expansive list of offset procurement is needed as fewer possible offsets are available as the NAAQS are made more stringent. For example, allowing use of reductions in neighboring counties that have an impact on nonattainment counties should be considered. The Department would like to have the ability to create and use offsets from an attainment and/or non-attainment area that is demonstrated to impact the non-attainment area in which a source is proposing to construct.

In one of the few non-attainment new source review permits issued in Region 4, a permitting action by this Department was completed by accepting offsets obtained from a closed facility in North Carolina. One result of recent emission control measures is that there are minimal potential offsets available for any potential major new source review projects in future nonattainment areas. Unless the EPA broadens its acceptance of offset opportunities, most, if not all future offsets may only be obtained from closed facilities. In practical terms, the opening of a new business means the closure of another business.

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[9] Section III. I. 3. b., Interprecursor Offset Substitution, *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements*, pre-publication, signed by Gina McCarthy, Feb. 13, 2015

Air Permitting

The Department supports the EPA's proposed Prevention of Significant Deterioration (PSD) grandfathering provision amendments to 40 CFR 51.166(i)(11). This provision allows for a PSD application deemed complete prior to the effective date of the revised ozone NAAQS to show compliance with the NAAQS that was in effect at the time the application was deemed complete. This PSD grandfathering provision will assist the Department in providing consistent guidance to permit applicants and help alleviate lengthy permit delays that would be caused by a new NAAQS compliance demonstration after an application was submitted.

As stated earlier, the Department supports the EPA's proposal to make the secondary standard identical in quantity and metric to the primary standard. If the secondary standard is chosen to be different in level and/or measurement metric, a surrogacy policy allowing a source to demonstrate compliance with PSD requirements through the primary standard is critical to the permitting process. The EPA has used the surrogacy method in other instances, such as $PM_{2.5}$ New Source Review and Maximum Achievable Control Technology (MACT) standards. However, the EPA has previously stated that the use of a surrogate must meet specific criteria, including a determination that the use of the surrogate is reasonable (75 FR 6827). Therefore, the EPA should ensure the use of the surrogate is defensible so states can implement its use without being vulnerable to litigation. Additionally, the surrogacy policy should remain intact until the EPA provides **FULL** guidance on implementing any new standard and/or metric.

Clean Air Act (CAA) Reform

The Department would like to re-emphasize that modernization of the CAA is necessary for state and local governments to implement the CAA in the most cost-effective and efficient manner. Substantial progress has been made in improving air quality through implementation of the CAA, but significant changes are needed to meet the challenges that lie ahead. Since 1990, the science and practice of air quality management has evolved and many requirements from 20 years ago are not appropriate today. Statutory, regulatory, scientific and technical limitations continue to hinder progress toward efficient and effective ways to reduce air pollution, improve air quality, protect public health, and meet NAAQS. Frequently, the EPA's statutory timetable is upset by the cumbersome review process. As an example, on September 29, 2008, the EPA announced[10] a call for information to update the Integrated Science Assessment (ISA) for ozone. This document was not finalized until February, 2013. The Regulatory Impact Assessment, the last in the series of assessment documents, did not appear until late November, 2014 (almost simultaneously with the Proposed Rule). This assessment took six years to be completed for a NAAQS review that is required to be completed in five years. This coupled with late guidance, makes it clear the statutory five-year NAAQS review period is not sufficient considering the work involved.

[10] 73 FR 56581, "Notice of Workshop and Call for Information on Integrated Science Assessment for Ozone"

There are many changes that, while small, will enhance the effectiveness of the CAA. For example, CAA section 182(b)(1) could be rewritten to allow a 15 percent reduction of either NO_x or VOC. This would allow VOC-insensitive areas such as South Carolina to concentrate efforts to reduce ozone on the pollutant that locally contributes most to its formation.

Furthermore, the Department urges the EPA to address air quality more holistically. The CAA regulates air quality in a pollutant-by-pollutant manner. As the EPA states (Page 75285), "Reductions in O_3 precursor emissions (i.e. NO_x) could also increase public health protection by reducing the ambient concentrations of pollutants other than O_3..." The time is right for a paradigm shift to a comprehensive multi-pollutant air quality management approach that will combine pollution-control efforts and maximize resources.

Thank you again for the opportunity to comment on the ozone NAAQS proposed rule. If you have questions or need further information, please contact Robert Brown of my staff by telephone at (803) 898-4105 or e-mail at brownrj@dhec.sc.gov.

Respectfully,

Myra C. Reece, Chief
Bureau of Air Quality

ec: Ms. Beverly Banister, Director, Air, Pesticides and Toxics Management Division, EPA Region 4