

April 17, 2020

United States Environmental Protection Agency
Guidance for Ozone and Fine Particulate Matter Permit Modeling

Subject: Comments on EPA Draft Guidance

The South Carolina Department of Health and Environmental Control (SCDHEC) appreciates this opportunity to comment on the draft *Guidance for Ozone and Fine Particulate Matter Permit Modeling*. This guidance outlines the procedures EPA recommends applicants use in order to address compliance with the National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) Increments in the air quality analysis that is required as part of the PSD permitting process.

SCDHEC supports the overall procedures outlined in this guidance. We believe the guidance allows for a logical approach to the NAAQS and PSD Increment modeling assessments required under the PSD permitting program. In particular, we believe the recommended tiered approach through the use of the recently finalized MERPs guidance will protect public health while allowing permit applicants a graduated approach to addressing secondary formation of ozone and fine particulate matter without, in most cases, having to resort to the onerous burden of performing photochemical modeling.

We offer the following specific comments we believe will further improve EPA's guidance:

- In Section II.2, p. 12, the sentence that says "With respect to the unique nature of the criteria pollutants O₃ and PM_{2.5} emissions of individual O₃ and PM_{2.5} precursors (i.e., NO_x, VOC, SO₂, and direct PM_{2.5} are not summed..." should read (to correct typos) "With respect to the unique nature of the criteria pollutants O₃ and PM_{2.5}, emissions of individual O₃ and PM_{2.5} precursors (i.e., NO_x, VOC, and SO₂) and direct PM_{2.5} are not summed..."
- In Section V.1.2, Figure V-1, the PM_{2.5} Major Source Baseline Date should be 10/20/2010 instead of 10/20/2011 as written.
- In Section V.3.2, EPA states that "Unlike the guidance provided for the cumulative NAAQS analysis for PM_{2.5}, it is not typically practical to utilize ambient monitoring data to represent any portion of the impacts that affect the PM_{2.5} increments." However, in Section V.3.2.2, EPA states "in some cases, the impacts of secondary PM_{2.5} emissions may be addressed by a demonstration that provides ambient monitoring data that generally confirms a downward trend in contributions of precursor emissions occurring after the applicable PM_{2.5} minor source baseline date..." We agree with the exception indicated by the language in Section V.3.2.2, but request that EPA broaden the exception. It is important to note that the regulation cited by EPA on page 59 of the draft guidance regarding the measuring increment consumption (44 Fed. Reg. 51924, 51944 (September 5, 1979)) does not preclude the use of monitoring data. The caveats discussed in the regulation hinge around the inability of monitoring to distinguish

certain emissions changes that may be detected by an ambient monitor that would not be considered to consume increment. The caveats mentioned in the regulation would not likely affect the PM_{2.5} increment baseline concentrations. In situations where the concerns cited by EPA are not likely to apply in an area, it is clear that changes in ambient monitoring concentrations could be used to measure increment consumption. In addition, the discussion in the regulation is concerned with increment consumption. Where the situation exists that there is overall increment expansion in an area, monitoring data especially may provide a means to confirm the increment expansion. Since PM_{2.5} is a regional-scale pollutant, where PM_{2.5} monitoring data can be representative of large areas like those that may be under consideration for PSD increment changes, SCDHEC agrees that there are situations where PM_{2.5}, SO₂, and NO_x ambient monitoring data from one or more monitoring locations could confirm a downward trend in PM_{2.5} concentrations since a minor source baseline date (in particular), providing evidence for the expansion of the PM_{2.5} increment in an area. Regional emissions inventory data, documenting an overall decrease in direct PM_{2.5} and precursor emissions could also support the conclusions of a decrease in increment consumption or increment expansion in an area. In such cases, the PM_{2.5} increment analysis could be completed by focusing on just the increment consumption associated with the increase in the project emissions. We urge EPA to clarify this issue and to allow for the consideration of ambient monitoring data to address both the consumption and expansion of the PM_{2.5} increment in a modeling domain.

- In Appendix B, Section 2.1, EPA states "Maximum allowable emissions and continuous operation should also be assumed for nearby sources included in the modeled inventory for the 24-hr PM_{2.5} NAAQS..." Consistent with Table 8-2 of Appendix W, EPA should also include that the nearby source modeled inventory for the 24-hr PM_{2.5} NAAQS may also consider the temporally representative operating level when actually operating, reflective of the most recent 2 years.
- In Appendix B, Section 2.1, EPA also states "...maximum allowable emissions and the actual operating factor averaged over the most recent 2 years should be used..." For clarity, EPA should say "may" rather than "should" to indicate a more conservative option is acceptable.
- In Appendix B, Section 2.3, EPA states "If questions arise about proper source characterization or typing, users should consult the appropriate EPA Regional Office modeling contact." EPA should say "...users should consult the appropriate EPA Regional Office or State/Local modeling contact."
- The example in Table 2 in Appendix C and the discussion on page C-3 that use an SO₂ emission rate of 14.2 tons/yr as part of the MERPs analysis conflicts with the statement in Section II.2 that "Only precursors that would by themselves be emitted by the source in a significant amount are included in the air quality analysis" (as well as with Case 2 in Table III-2). EPA should revise the discussion and calculations to use an SO₂ emissions rate equal to or above the 40 TPY Significant Emission Rate for SO₂ so that the example is consistent with the guidance in Sections II and III.
- On page C-4 of Appendix C, the sentence "The Cadiz, KY, monitor was selected...due to its proximity to GCC, its comparable levels of precursor emissions in the county, and it

has the largest measurement scale..." should be revised to read "The Cadiz, KY, monitor was selected...and its measurement scale, which is the largest among the area background sites and indicates it is representative of regional air quality."

Again, we appreciate this opportunity to provide comment and participate in the stakeholder process for developing this guidance. If you have questions or need additional information, please contact John Glass at (803-898-4074) or glassjp@dhec.sc.gov.