GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Air Protection Branch
4244 International Parkway
Suite 120
Atlanta, Georgia 30354
404-363-7000

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Submitted via electronic email to: bridgers.george@epa.gov

Mr. George Bridgers
Air Quality Modeling Group
Air Quality Assessment Division
U. S. EPA Office of Air Quality Planning and Standards

Dear Mr. Bridgers:

The Georgia Environmental Protection Division (Georgia EPD) appreciates the opportunity to provide the following comments on the "DRAFT Guidance for Ozone and Fine Particulate Matter Permit Modeling" document (Draft Guidance) dated September 20, 2021.

Overall, EPA's Draft Guidance provides clear and comprehensive guidance on demonstrating compliance with the NAAQS for ozone and $PM_{2.5}$ and analyzing PSD increments for $PM_{2.5}$. Below, we would like to offer both general and specific comments for EPA to consider as they finalize the Draft Guidance.

General Comments

1. Georgia EPD requests that EPA clarify whether any PSD application that triggers 1-hour NO_2 or SO_2 analysis (i.e., major NO_2 or SO_2 sources) will be automatically subject to air quality analysis for ozone and/or $PM_{2.5}$. Further, GA EPD recommends the establishment of a *de minimus* level of primary $PM_{2.5}$ emissions that would not trigger unintended and unnecessary AERMOD modelling analysis for primary $PM_{2.5}$. This clarification and request for a *de minimus* emission level is critical to avoid unnecessary burden on the regulated community and agency staff.

2. Georgia EPD recommends that EPA include the overall change (including nitrate, sulfate, OC, EC, and others) as part of $PM_{2.5}$ MERPs. No reason is given for excluding ammonium or the impacts of SO_2 and NOx on other secondary $PM_{2.5}$ species. Since SO_2 can impact ammonium, nitrate, and OC $PM_{2.5}$ concentrations and NOx can impact ammonium, sulfate, and OC $PM_{2.5}$ concentrations, the impact of SO_2 and NOx on total $PM_{2.5}$ should be examined rather than just SO_2 on sulfate ion concentrations and NOx on nitrate ion concentrations. If there is justification for ignoring the impact of SO_2 and NO_X on other components of $PM_{2.5}$, it should be included in the guidance.

3. Georgia EPD recommends that EPA use consistent terminology for "background concentrations." Throughout the Draft Guidance, EPA uses both "background levels" and "monitored background." If these terms are not equivalent, EPA should provide clear definitions for each in the final guidance document.

4. Georgia EPD recommends that EPA clearly define the phrases – "air quality assessment", "air quality demonstration", and "air quality impact" – used throughout the document. Additionally, EPA should clarify whether these phrases' definition and use are congruent with their definitions and use in 40 CFR 52.21(k) and 40 CFR 52.21(m).

5. Georgia EPD recommends that EPA conduct analyses similar to what are presented in "Appendix A: Draft Conceptual Description of O_3 and $PM_{2.5}$ Concentrations in the U.S" with more recent data.

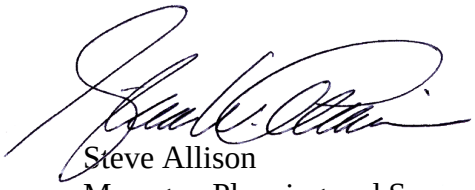
6. While it is not specifically part of the Draft Guidance, Georgia EPD recommends that EPA send out automatic notifications to all permitting authorities when a new data set is added to the MERPs View Qlik website (https://www.epa.gov/scram/merps-view-qlik).

Specific Comments

The attached Table 1. contains Georgia EPD's comments on specific items in EPA's Draft Guidance. We attempted to include the original text of the Draft Guidance in Table 1 so that EPA staff can easily locate our discussion items.

If you have any questions about our comments, please contact Byeong-Uk Kim at Byeong.Kim@dnr.ga.gov.

Sincerely,



Steve Allison
Manager, Planning and Support Program
GA EPD – Air Protection Branch

Table 1. Georgia EPD's specific comments on EPA's Draft Guidance.

Page	Original Text	Comment
12	"To make the required demonstration, sources should provide a full accounting of the combined impacts of their allowable precursor (and direct component in the case of $PM_{2.5}$) emissions on ambient concentrations of the relevant NAAQS (i.e., O_3 or $PM_{2.5}$) if any precursor(s) (or the direct component in the case of $PM_{2.5}$) would be emitted in a significant amount."	Georgia EPD recommends that EPA clarify if the word "demonstration" pertains to 40 CFR 52.21(k), 40 CFR 52.21(m), or both since 40 CFR 52.21(m) pertains to ambient monitoring data representative of the proposed/existing project site.
12	"Paragraph (m)(1)(iii) further provides that, for each NAAQS pollutant, the analysis shall contain continuous air quality monitoring data for determining whether emissions of that pollutant would cause or contribute to a violation of any NAAQS or PSD increment."	40 CFR 52.21(i)(5) specifies that Georgia EPD may exempt a stationary source or modification from the requirements of [40 CFR 52.21(m)] with respect to monitoring for a particular pollutant if the project modeling results in an MGLC less than the *significant monitoring concentrations (SMCs)*. GA EPD recommends that EPA clarify whether the project modeling results should include secondary formation of $PM_{2.5}$. 40 CFR 52.21(i)(5) requires that an *ambient impact analysis* for ozone be performed if the net emissions increase of NOx or VOC exceeds 100 tpy. The Draft Guidance incorporates a new requirement, namely, that secondary formation of ozone be accounted for if the net emissions increase of NOx or VOC exceed 40 tpy. Georgia EPD recommends that EPA clarify whether an applicant is required to perform an *ambient impact analysis* for ozone if the net emissions increase of VOC or NOx exceeds 40 tpy rather than 100 tpy. Georgia EPD recommends that EPA clarify whether an *ambient impact analysis* means as stated in 40 CFR 52.21(i)(5) as it relates to 40 CFR 52.21(m).

28	"For O_3, this characterization should take into consideration episodic high O_3 concentrations and any trends in the area. For $PM_{2.5}$, this characterization should take into consideration the seasonality and speciated composition of the current $PM_{2.5}$ concentrations and any long-term trends that may be occurring."	Georgia EPD recommends that EPA provide examples that states/permitting authorities can refer to.
38	"Under the Tier 1 approach, for source impact analyses, the highest of the multi-season (or episode) averages of the maximum modeled daily 8-hour O_3 concentrations predicted each season (or episode) should be compared to the appropriate O_3 SIL, since this metric represents the maximum potential daily 8-hour O_3 impact from the proposed source or modification."	Georgia EPD recommends that EPA provide an example calculation demonstrating how to compute "the multi-season (or episode) averages of the maximum modeled daily 8-hour O_3 concentrations" with MERPs.
49	The modeled O_3 impacts should be based on the average of the predicted annual (or episodic) fourth-highest daily maximum 8-hour averaged O_3 concentrations.	For "episodic" cases, Georgia EPD recommends that EPA use the episodic max (or the 99^{th} percentile if the episode is longer than 100 days) daily maximum 8-hour averaged O_3 concentration.
54	Similarly, for a monitor with every third day (1-in-3 day monitor) sampling frequency and 100% data completeness, the highest two monitored concentrations for each year should be excluded from the seasonal (or quarterly) subdivided datasets.	Georgia EPD recommends that EPA add more details for 1-in-6 day monitors. For 1-in-6 day monitors, what values can be excluded?
C-8	"3 Year Avg. 4th High 8-Hr Ozone Conc. (ppb) [1]"	The column heading is not correct Georgia EPD recommends that EPA change the heading to "MERP values for NOx and VOC (TPY)[1]".