



Modeling Guidance Updates:

Guidance on Ozone and PM_{2.5} Permit Modeling

12th Conference on Air Quality Modeling
RTP, North Carolina
October 3, 2019

Quick History Lesson

- The EPA granted a petition by the Sierra Club in 2010 and committed to engage in rulemaking to evaluate updates to the *Guideline on Air Quality Models*, and, as appropriate incorporate new analytical techniques or models for Ozone and secondary PM_{2.5}.
- EPA's PM₁₀ Surrogate Policy officially ended in 2011.
- The PM_{2.5} NAAQS (annual and daily form) was revised in 2012.
- In 2013, the U.S. Court of Appeals for the District of Columbia Circuit vacated the SMC for PM_{2.5} and two provisions in EPA's PSD regulations containing SILs for PM_{2.5}.
- During this while, the EPA embarked on a multi-year effort to develop guidance on assessing single-source PM_{2.5} impacts for the purposes of NSR-PSD permitting, which included co-regulator involvement and informal stakeholder comment/feedback.
- In 2014, the EPA "finalized" (released as a non-draft version) the *Guidance on PM_{2.5} Permit Modeling*.

Quick History Lesson (cont.)

- In January 2017, the EPA revised the *Guideline on Air Quality Models* with specific recommendations for quantitatively assessing ozone and secondarily formed PM_{2.5} using existing chemical transport modeling tools and techniques.
- In association with the *Guideline* revisions, the EPA released the following guidance:
 - Draft version of *Guidance on the Development of Modeled Emissions Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM_{2.5}* under the PSD Permitting Program in December, 2016.
 - Final version of *Guidance on the use of models for assessing the impacts of emissions from single sources on the secondarily formed pollutants ozone and PM_{2.5}* in December 2016.
- The *Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program* was “finalized” on April 17, 2018.
 - Provides a policy, legal, and technical basis for recommended 8-hour ozone and daily/annual PM_{2.5} SILs.
- April 30, 2019, the EPA “finalized” the MERPs Guidance (as was just presented by Kirk Baker).

Status of the Guidance and Schedule

- Our efforts have focused on updating 2014 PM_{2.5} Permit Modeling guidance to incorporate ozone and reflect the 2017 Guideline revisions and 2018 SILs guidance.
- Updated drafts have undergone significant internal coordination between OAR, OAQPS-AQPD, OAQPS-AQMG, and OGC.
- The EPA will release the Draft *Guidance on Ozone and PM_{2.5} Permit Modeling* for informal public comment shortly following the 12th Modeling Conference.
- Similar to the 2014 *Guidance on PM_{2.5} Permit Modeling*, the EPA will accept comments and feedback on the draft guidance for 45-days.

How to Proceed in the Interim?

- EPA recommends that applicants engage with the appropriate reviewing authority and that the co-regulatory agency consult with the appropriate EPA Regional Office for any permit action needed in address ozone or secondary PM_{2.5} impacts.
- EPA is currently not recommending the holistic assessment approach as presented at the 2018 RSL Modelers' Workshop. Rather, engagement with the appropriate reviewing authority is the current recommendation until the draft guidance is released for informal public comment in the coming weeks.
- Finally, the EPA also does not endorse or recommend any 'scaling' techniques for the assessment of primary PM_{2.5}. If one needs to or is required to assess primary PM_{2.5}, then it should be done with the EPA recommended screening model, AERSCREEN, or the EPA preferred model, AERMOD, as described in Section 4.2.3.5 of Appendix W.

O₃ & PM_{2.5} Permit Modeling Guidance (*cont.*)

- Questions and comments about the Draft *Guidance on Ozone and PM_{2.5} Permit Modeling* can be directed to George Bridgers (Bridgers.George@epa.gov).