



Appendix W / AERMOD Proposed Revisions

October NACAA Emissions and Modeling Committee

U.S. EPA / OAQPS / Air Quality Modeling Group

Tuesday, October 3, 2023



AERMOD/Appendix W Revision Rule

- The *Guideline on Air Quality Models* is published as Appendix W to 40 CFR Part 51.
 - Often referred to as “Appendix W” or “The *Guideline*”
 - The *Guideline* provides EPA’s preferred models and other modeling techniques as well as guidance for their use in estimating ambient concentrations of criteria air pollutants.
 - Satisfies requirements under the CAA for the EPA to “specify with reasonable particularity” air quality models to be used in regulatory compliance demonstrations (*e.g.*, NSR-PSD Permitting, Attainment Demo SIPs, etc.)
- EPA will be proposing to revise the scientific formulation in the AERMOD Modeling System and to make minor revisions to the *Guideline*
 - Only adding formulation options to the model system
 - Not removing any existing options or imposing any new requirements
- Full rule title is, “Revisions to the Guideline on Air Quality Models; Enhancements to the AERMOD Dispersion Modeling System; 13th Conference on Air Quality Models”
 - OMB has determined this regulatory actions to be non-significant
 - Goal is for EPA Administrator signature and publication in the Federal Register by late-October
 - Rule Docket – EPA-OAQ-2022-0872 (*Not publicly accessible until rule publication*)



AERMOD Modeling System (v23132)

- The most significant aspect of the proposed rule is updates to the AERMOD Modeling System
 - The AERMOD Modeling System includes the AERMAP and AERMET data preprocessors and the AERMOD dispersion model
- As noted on the last slide, we are only adding new regulatory options and are not taking anything away or altering how applicants and state/local permitting agencies can currently use the modeling system for regulatory compliance demonstrations.
- All regulatory updates will be proposed as “beta options” that will become “non-default regulatory options” in the final rule.
- Additionally, we will add several new “alpha options” and numerous bug fixes to AERMOD (v23132), but these additions do not need regulatory approval and are not formally part of the proposed action... albeit we will have to address all comments received.



EPA Conferences on Air Quality Modeling

- Per Section 320 of the Clean Air Act, the EPA is to conduct triennial air quality modeling conferences:
 - “Not later than six months after August 7, 1977, and at least every three years thereafter, the Administrator shall conduct a conference on air quality modeling. In conducting such conference, special attention shall be given to appropriate modeling necessary for carrying out part C of subchapter I (relating to prevention of significant deterioration of air quality)”
- EPA Conferences on Air Quality Modeling are formal public hearings and must be transcribed and docketed.
- While not set in any requirement, the 45-year history of these conferences reveals a precedence that most:
 - Even numbered conferences are associated with regulatory air quality model development discussions, exchanges, and feedback; and
 - Odd numbered conferences are associated with proposed rulemaking related to regulatory air quality models and modeling requirements.



13th Conference on Air Quality Models

- The 13th Modeling Conference is scheduled for November 14 – 15, 2023
 - EPA RTP, NC - Nantahala Room / C111
 - In-person only... no virtual / hybrid option
 - Everything presented, included transcripts will be placed into the proposed Rule Docket – EPA-OAQ-2022-0872 (*Not publicly accessible until rule publication*)
 - <https://www.epa.gov/scram/13th-conference-air-quality-modeling>
- The 13th Modeling Conference will both satisfy the Section 320 statutory requirement to have a triennial modeling conference and will serve as the public hearing for the AERMOD/Appendix W Revision Rule
 - Conference/Public Hearing Notice must be “published” in the Federal Register no later than 15-days prior to the public hearing
 - Public comment period must remain open for at least 30-days after the close of the public hearing



Post 13th Modeling Conference

- The *Guideline* and AERMOD Modeling System revisions proposal will have a 60-day comment period that will extend at least 30-days after the 13th Modeling Conference.
- So, the comment period will close near the end of the 2023 calendar year.
- It is EPA's intention, to work on the Response to Comments package and the final version of the revisions rule in early 2024
- If all goes to plan, the goal is for the final rule publication in late-Summer 2024 with a corresponding 24XXX release version of the AERMOD Modeling System.
- Of note, this will be only the second time since 2005 that EPA has made regulatory updates to either the *Guideline* or the AERMOD Modeling System.
 - Last updates were in 2016/2017, over a decade after initial model promulgation
 - Overall, fits within EPA's commitment to focus on more frequent regulatory updates
 - The hope is that this round of regulatory updates can become a model for additional regulatory updates within this decade



Questions

- Questions from the NACAA E&M Committee?