

Factsheet

Final Revisions to the Guideline on Air Quality Models; Enhancements to the AERMOD Dispersion Modeling System

Action

- On November 20, 2024, EPA finalized revisions to “*Guideline on Air Quality Models*” (also known as Appendix W or “*Guideline*,”) and to the AERMOD dispersion modeling system.
- EPA's *Guideline* revision will provide states, Tribes and private industry with updated air quality models and techniques, modeling procedures, and enhanced technical guidance. These revisions will improve efficiency, accuracy, and ability of regulatory modeling applications, increasing certainty in the degree and type of air pollution emission controls necessary to achieve health protective air quality levels.
- In this final action, EPA is improving AERMOD with changes to the modeling of:
 - Near-roadway mobile source emissions;
 - Conversion of NO_x to NO₂; and
 - Marine boundary layer environments for offshore sources.
- These improvements can now be used in a regulatory context without special permission. Before this action, industry, Tribes, states, and local air pollution agencies had to receive alternative model approval from the appropriate EPA regional administrator and concurrence with the EPA’s Model Clearinghouse (as required per the *Guideline*, sections 3.2 and 3.3) to use these three non-preferred alternative models.
- EPA is also updating recommendations for the development of appropriate background concentrations for cumulative impact analyses.

Background

- The *Guideline* establishes EPA’s preferred air pollution models and other recommended techniques, as well as guidance for their use in estimating ambient concentrations of air pollutants. It is incorporated into the EPA’s regulations, satisfying a requirement under the Clean Air Act (CAA) for the EPA to specify, with reasonable particularity, models to be used in the Prevention of Significant Deterioration (PSD) program.
- The *Guideline* is used by EPA, states, Tribes, and private industry in the review and preparation of permits for new sources for Prevention of Significant Deterioration (PSD), for state or Tribal Implementation Plan (SIP) revisions, and other regulatory modeling applications.
- For more information, read the final rule: <https://www.epa.gov/scram>.