

# Air Quality Dispersion Models Revision Process U.S. Environmental Protection Agency Office of Inspector General Report



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The United States Environmental Protection Agency (“EPA”) Office of Inspector General (“OIG”) issued a September 5th report titled:

*EPA Can Strengthen Its Process for Revising Air Quality Dispersion Models that Predict Impact of Pollutant Emissions (“Report”)*

The Report is derived from an audit OIG took undertook to assess the effectiveness of EPA’s process for reviewing and approving air quality dispersion models that are utilized by state, local and tribal air pollution control agencies.

Air quality dispersion modeling is often used in conjunction with air quality monitoring. It is used to estimate the probable concentration of the given pollutant at a certain geographical point. The models typically use emission data along with meteorological information to produce such predictions. Additional informational components utilized may include chemistry of air emissions and topographical features in the relevant area. Changes to model components (i.e., meteorological data, etc.) will affect the result in estimated air pollutant concentrations. The models are sometimes adjusted (i.e., calibrated) as better information becomes available to improve their accuracy. The complexity of the models can vary.

EPA review/approval process for designated preferred models is found in Appendix W to 40 CFR Part 51. The federal agency’s goal is to identify the best-performing model as the preferred model. The Appendix lists preferred models.

The OIG report notes that EPA has guidance on the recommended procedures for reviewing the development and evaluation of new air quality dispersion model. However, it states similar guidance is not available for revisions to air quality dispersion models.

OIG concludes that the development of standard operating procedures along with quality assurance project plans (or equivalent documents for model revisions) could assure consistent application of quality assurance and quality control activities.

OIG makes four recommendations to EPA’s Assistant Administer for Air and Radiation. These include:

- Development of standard operating procedures to guide and document the agencies process for reviewing and approving revisions to preferred air quality dispersion models

- Developing a quality assurance project plans or equivalent documents to describe results of systematic planning for air quality dispersion model revisions
- Updating the Office of Air Quality Planning and Standards' Quality Management Plan
- Training EPA staff

A copy of the OIG report can be found [below](#).