

EPA's Approval of the MOVES2010a and EMFAC2007 Emissions Models for Transportation Conformity Hot-Spot Analyses, and Availability of Modeling Guidance: Questions and Answers

1. What action is EPA taking in today's Federal Register notice?

In today's Federal Register notice, EPA is approving the latest version of the Motor Vehicle Emissions Simulator model (MOVES2010a) for official use for quantitative carbon monoxide (CO) and particulate matter (PM_{2.5} and PM₁₀) hot-spot analyses for transportation conformity purposes outside of California. EPA is also approving the latest version of the California Emission FACTor model (EMFAC2007) for quantitative PM hot-spot analyses for transportation conformity purposes within California. EPA is also announcing a two-year transportation conformity grace period before use of these models for these purposes is required.

While EPA is approving the MOVES2010a and EMFAC2007 models for project-level transportation conformity purposes, today's notice is applicable to current and future versions of the MOVES and EMFAC models, unless EPA notes otherwise when approving the models for conformity purposes.

Finally, the notice announces the availability of two new EPA guidance documents for: (1) completing quantitative PM hot-spot analyses using MOVES, EMFAC, and other models, and (2) completing project-level CO analyses using MOVES.

The Federal Register notice, guidance documents, a fact sheet, and other documentation are available online at the EPA website: www.epa.gov/otaq/stateresources/trans-conf/policy.htm. EPA and the Department of Transportation (DOT) will provide outreach and training for using the guidance documents.

2. What is transportation conformity and what is a hot-spot analysis?

Transportation conformity is a Clean Air Act requirement that ensures that federally supported highway and transit project activities are consistent with (“conform to”) the state air quality implementation plan (SIP). Conformity ensures that public health is protected by early consideration of the air quality impact of transportation decisions in cities with air quality challenges. Transportation conformity is required in nonattainment and maintenance areas for transportation-related criteria pollutants and national ambient air quality standards (NAAQS) (PM2.5, PM10, ozone, CO, and nitrogen dioxide). A “hot-spot analysis” allows for the local air quality impacts of a project to be considered before the project receives federal funding or approval.

3. For what purposes are these models being approved?

In today’s notice, EPA is approving the MOVES2010a model for official use for completing quantitative CO, PM2.5 and PM10 hot-spot analyses for transportation conformity purposes (with a grace period – see Question #4). EPA previously approved MOVES2010 for use in SIPs and transportation conformity regional emissions analyses in March 2010. MOVES2010a is a minor update to the original MOVES2010 model.

Today EPA also is approving EMFAC2007 for official use when completing quantitative PM hot-spot analyses for transportation conformity purposes within California (also with a grace period – see Question #4). EPA previously approved EMFAC2007 for use in SIPs, regional emissions analyses, and quantitative CO hot-spot analyses in January 2008. Nothing in today’s action affects that approval.

4. Is there a grace period for using these models for quantitative hot-spot analyses?

Today’s Federal Register notice announces a two-year grace period before (1) the MOVES2010a emissions model is required to be used in quantitative CO and PM hot-spot analyses for transportation conformity purposes, and (2) the EMFAC2007 model is required to be used for PM hot-spot analyses for transportation conformity purposes within California.

During the grace period in PM areas, the requirement to conduct qualitative analyses will continue to apply, using previously issued joint EPA-Federal Highway Administration (FHWA) guidance on such analyses. New quantitative PM hot-spot analyses started after the conclusion of the grace period must use MOVES2010a or EMFAC2007 (within California). See Question #5 for more on the quantitative PM hot-spot analysis guidance also released today.

During the grace period in CO areas outside of California, project sponsors will have the option to use either MOVES2010a or EPA’s MOBILE6.2 model. New quantitative CO hot-spot analyses started after the conclusion of the grace period must use MOVES2010a.

5. What is the quantitative PM hot-spot guidance?

Today's notice includes the announcement that EPA's final "Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas" is available. This is conformity guidance for modeling the local air quality impacts of certain transportation projects on the PM_{2.5} and PM₁₀ NAAQS.

This guidance describes how to complete quantitative hot-spot analyses for certain highway and transit projects in PM nonattainment and maintenance areas. This guidance describes conformity requirements for hot-spot analyses, and provides technical guidance on estimating project emissions with EPA's MOVES model, California's EMFAC model, and other methods. It also outlines how to apply air quality models for PM hot-spot analyses and includes additional references and examples. Finally, the guidance includes additional resources to assist state and local agencies in conducting quantitative PM hot-spot analyses.

While this guidance addresses quantitative PM hot-spot analyses for transportation conformity purposes, certain sections of this guidance may be applicable when completing air quality analyses for transportation projects for other purposes.

A draft of this guidance was made available for public comment on May 26, 2010 with a closing date of July 19, 2010 (75 FR 29537-29538). EPA received 15 sets of comments on the draft guidance and considered these comments when developing its final guidance.

This guidance can be found on EPA's web site at: www.epa.gov/otaq/stateresources/transconf/policy.htm.

6. What is the project-level CO guidance?

Today's notice also includes the announcement that EPA's final guidance document "Using MOVES in Project-Level Carbon Monoxide Analyses" is available. This guidance describes how to use the MOVES emissions model to estimate CO emissions from transportation projects, including roadway intersections, highways, transit projects, parking lots and intermodal terminals. This guidance can be applied when using MOVES to complete any project-level quantitative CO analysis, including hot-spot analyses for transportation conformity determinations, modeling project-level emissions for SIP development, and completing analyses pursuant to the National Environmental Policy Act. This MOVES guidance applies in all states other than California.

This guidance does not address air quality modeling for project-level CO analyses, as there are other existing resources that support CO project-level analyses. For example, EPA's regulatory recommendations for CO air quality modeling can be found in Appendix W to 40 CFR Part 51. Users should also continue to consult the "1992 Guideline for Modeling Carbon Monoxide from Roadway Intersections," (EPA-454/R-92-005, November 1992).

The new CO project-level MOVES guidance can be found on EPA's web site at: www.epa.gov/otaq/stateresources/transconf/policy.htm.

7. How has EPA coordinated with other agencies and stakeholders on the actions taken in today's notice?

As required by the transportation conformity rule, EPA consulted with the FHWA and Federal Transit Administration (FTA) when establishing the two-year transportation conformity grace period described in today's notice.

EPA also coordinated with FHWA and FTA when developing the guidance documents released today. In addition, EPA worked with the California Air Resources Board (CARB) and the California Department of Transportation (Caltrans) to develop the portions of the PM hot-spot guidance relating to the use of CARB's EMFAC model in California.

Finally, EPA developed the guidance documents in coordination with state and local agencies and other stakeholder groups. EPA considered comments from conformity stakeholders when developing the final guidance documents.

8. Who do I contact for more information?

Any general questions regarding the actions taken today can be directed to Meg Patulski at:

U.S. Environmental Protection Agency
Office of Transportation and Air Quality
Transportation and Regional Programs Division
(734) 214-4842
E-mail: patulski.meg@epa.gov

Technical questions about completing emissions and air quality modeling for hot-spot analyses can also be sent to:

conformity-hotspot@epa.gov

For specific questions concerning using the guidance documents for a project in a particular nonattainment or maintenance area, please contact the transportation conformity staff person responsible for your state at the appropriate EPA Regional Office. Contact information for EPA Regional Offices can be found at:

www.epa.gov/otaq/stateresources/transconf/contacts.htm