

Questions & Answers on MOVES Demo

What is MOVES?

MOVES, the Motor Vehicle Emission Simulator, is a model currently under development at EPA to estimate air pollution emissions and energy consumption by cars, trucks, non-road equipment and other mobile sources. Eventually, MOVES will replace EPA's MOBILE6.2 model of highway vehicle emissions and EPA's NONROAD model of emissions from non-road mobile sources.

What is MOVES Demo?

MOVES Demo, also known as MOVES-HVI (Motor Vehicle Emissions Simulator Highway Vehicle Implementation) Demonstration Version, is an update to MOVES2004. MOVES Demo replaces and expands upon MOVES2004 software which allows users to compute energy consumption, methane and nitrous oxide emissions.

MOVES Demo also adds the capability to model criteria pollutants (hydrocarbons, nitrogen oxides, carbon monoxide, and particulate matter) but all of the criteria pollutant emission rates in MOVES Demo are placeholder values and do not represent actual emission rates.

MOVES Demo adds many of the major software features planned for the future final MOVES, including among other features:

- a trip processor to compute vehicle start and soak times
- a post-processor to produce summary output
- a limited pre-processor for inspection and maintenance (I/M) inputs
- optional output in grams/mile

How does MOVES Demo differ from the final official release of MOVES?

MOVES Demo does not contain all of the features and capabilities planned for the official release of MOVES. For example, we expect to further refine the I/M pre processor and add more pre-processors to MOVES that will simplify the input of some local data. And, of course, the final version of MOVES will replace the current "placeholder" values for emission rates with real rates.

What is the purpose of MOVES Demo?

MOVES Demo provides an excellent opportunity for modelers to start learning to use the advanced features of the MOVES model and to provide feedback to EPA as we continue our work on the MOVES model. MOVES Demo also provides an opportunity for modelers to begin thinking about how to integrate MOVES into existing inventory development and air quality modeling processes. We encourage users to make suggestions about features and capabilities not currently in MOVES Demo and to report any difficulties you have with the software.

How can I contact EPA to make suggestions about the MOVES Demo or to report difficulties?

If you want to make suggestions about the MOVES Demo or report difficulties with it, please email the MOVES team at mobile@epa.gov.

Does MOVES Demo require any specific software knowledge?

MOVES Demo has a graphical user interface which is described in detail in the MOVES User Guide. MOVES relies on MySQL databases to manage user input and output. While prior experience with MySQL is not required to run MOVES Demo, knowledge of MySQL or experience with relational databases may be needed to do more complicated analysis with MOVES.

May MOVES Demo be used to estimate emissions for State Implementation Plans (SIPs) and conformity determinations?

No. Users may not use MOVES for any submissions for State Implementation Plans (SIPs) or conformity determinations until EPA approves an “official” version of MOVES.

What model should be used to estimate highway vehicle emissions for SIPs and conformity determinations now?

Currently, MOBILE6.2 is EPA’s official model for estimating emissions from highway vehicles. See the February, 24, 2004, “Policy Guidance on the Use of MOBILE6.2 and the December 2003 AP-42 Method for Re-Entrained Road Dust for SIP Development and Transportation Conformity” for more details. This document is on the Web at www.epa.gov/otaq/models/mobile6/mobile6.2_letter.pdf.

What is the schedule for the release of future versions of MOVES?

MOVES Demo will be followed by a comprehensive draft version of MOVES for highway vehicles that will include draft emission rates that are EPA’s best estimates of actual emissions. We plan to schedule an additional significant comment period on this draft model to assure that all stakeholders have adequate time to review the comprehensive draft model. The date of the draft model release will depend on EPA progress resolving emission rate technical issues, but is estimated to be in the fall of 2008.

After we complete stakeholder review of MOVES Demo and the future comprehensive draft MOVES for highway vehicles, we plan to release an official version of MOVES, approved for use estimating highway vehicle emissions in SIPs and conformity determinations. The timing

for the official MOVES version will depend on the comments received on MOVES Demo and the future draft MOVES, but is most likely to be in the fall of 2009. Future versions of MOVES will also incorporate the capability to model emissions of nonroad equipment, but the schedule for adding that capability has not been determined.

Where can I get more information on MOVES Demo?

Software and documentation for MOVES Demo are available on the web at www.epa.gov/otaq/ngm.htm. If you have additional questions about MOVES Demo, e-mail the MOVES team at mobile@epa.gov.