

## **Memorandum**

August 20, 2009

To: Motor Vehicle Emission Simulator (MOVES) Task Force Members

From: Daivamani Sivasailam  
Principal Transportation Engineer

Subject: Highlights of the August 18, 2009 MOVES Task Force Meeting

The inaugural meeting of the Task Force was called to order by co-chair Jim Ponticello of VDOT, which was followed by introductions of members and staff including participants who joined the meeting by phone. The sign sheet is shown as attachment A.

### **Item 2**

He proceeded to item # 2, a discussion on the mission and objective of the MOVES Task Force. He briefly provided an overview of the draft MOVES model, how the model differed from the Mobile 6.2 model, and when the final release of the model is expected. The main goal and objective of the task force is to discuss and come to a consensus on all the important inputs to the model. The urgency in discussing the issues now instead of later is due to the fact that time will be limited once the final version of the model is released; we will then have to develop SIPs and demonstrate conformity within a specified time window. Since preliminary analysis using the MOVES model and comparison of the inventories with the Mobile 6.2-developed inventories show substantial increases in NO<sub>x</sub>, PM, and in some cases VOC emissions, it will be necessary to develop new mobile budgets prior to using the MOVES model in conformity assessments.

Diane Franks of MDE, the co-chair of the Task Force, agreed with the assessments and went on to add her hope that the group can achieve the kind of agreements the Mobile 6.2 model task force was able to achieve. She added that even though the MOVES model shows higher emissions, in reality emissions remain the same. The release timing of the model is inconvenient (late) since the air agencies need to run the CMAQ air quality model for the next SIP submission soon. The group echoed the sentiment that EPA should have issued guidance and documentation along with the draft release of the model.

Mike Clifford thanked the members for participating and emphasized the importance of the model in conformity and SIP analysis. Joan Rohlf's suggested a short term objective of developing a group comment letter to EPA.

### **Item 3**

Sunil Kumar and Eulalie Lucas presented an overview (see web posting for material under this item) of the MOVES model and provided some comparisons to the Mobile 6.2 model. The inputs are in Excel file formats as opposed to text format; there are seven (7) major inputs and national defaults are available for all the inputs, and the model develops emissions internally using VMT provided as an input. Instead of weight/fuel-based vehicle types the MOVES model classifies the vehicle based on use. This was done to match HPMS vehicle types as EPA expects HPMS to be the main data source for total VMT and VMT fraction. They also discussed various local data that may be available in the region for input to the model such as vehicle registration, temperature, vehicle miles of travel, inspection and maintenance (I/M), and local fuel programs. There was discussion on how HPMS VMT data are used in the regional travel demand model and how we could possibly use a method similar to the process staff used in developing national emissions inventory (NEI) data by vehicle type and facility type in developing MOVES input.

Mike Clifford discussed how disaggregated the current mobile emissions inventory process is and whether we will be able to maintain it with the MOVES model. Marcia Ways of MDE cautioned the group that based on preliminary runs the MOVES model may need enormous resources and lots of time to run at the county level. Ram Tangirala of DDOE agency recommended that the group seriously consider running the model at the regional level and coming to an agreement on a regional I/M and fuel program inputs if needed. Jim Ponticello recommended staff run sensitivity tests of various components which could guide us in this effort. Diane Franks suggested that, since we spent a large amount of time in developing meteorology data during the Mobile 6.2 taskforce effort, we should review the current metrological data at the next meeting to see whether it needs to be updated. She also suggested developing a schedule as to when decisions have to be made working back from when different inventories are needed. The group also suggested inviting EPA region 3 and FHWA representatives who are familiar with the model, such as Janet Kremer of EPA and Cecilia Ho of FHWA to participate in future MOVES Task Force meetings.

### **Item 4**

Under this item Eulalie described her experience with running the MOVES model for DC as a test case. She did it for light duty vehicles using some local data and defaults where needed. Sunil ran the model for DC with all national defaults and for all vehicle types. Chris Voigt of VDOT described his experience in testing the model for

the Hampton Roads Maintenance area. Sonya Lewis-Cheatham of VDEQ also tested the model for light duty vehicles and reiterated the significant amount of time and resources that will be needed to develop inputs. Marcia Ways said Mohamed Khan of MDE ran the model for the Baltimore region and observed increases of 20 to 30 percent in pollutants over those predicted by the Mobile 6.2 model.

#### **Item 5**

Jim Ponticello discussed the AASHTO comment letter to EPA on the MOVES model and highlighted a number of important points in the letter. AASHTO is requesting guidance, full sensitivity analysis, and importers so emissions can be estimated at the link level. Chris Voigt of VDOT discussed the VDOT comment letter which was written to support and complement the AASHTO letter, and also addressed broader issues such as the need for federal categorical determinations to be completed for CO and PM, guidance on project-level conformity assessments using the MOVES model, allowing the full 2-year grace period for both regional and project-level conformity determinations, transition issues to include both more comprehensive and on-demand training, and the recommendation for a scenario manager similar in concept to that for the FHWA interface models. Mike Clifford discussed TPB staff comments to EPA requesting advice on the feasibility of a disaggregate approach in using the model. Marsha Ways discussed Mohamed Khan's comments which were more from a user perspective asking the EPA to modify the input and output screens for clarity (see web postings for comments).

#### **Item 6**

Jim Ponticello suggested that agenda items for the next meeting include: a work program on MOVES testing; more details on the inputs to the MOVES model; model tests to assess the sensitivity of the various MOVES input parameters; and reports from each jurisdiction on their fuel and I/M programs. The next meeting of the Task Force will be held on September 15, 2009 at 10 AM. It was suggested that we continue to invite members of TPB Tech and MWAQC TAC for the next two meetings and after that develop a membership list.

## **Meeting Attendees**

Monica Backmon	Prince William County
Austina Casey	DDOT
Jessica Daniels	DDOE
Diane Franks	MDE
Sonya Lewis-Cheatham	VDEQ
Robert Owolabi	Fairfax County
Jim Ponticello	VDOT
Greg Robinson	SHA
Rama Tangirala	DDOE
Christopher Voigt	VDOT
Marcia Ways	MDE

## **COG Staff**

Mike Clifford	COG/DTP
Eulalie Gower-Lucas	COG/DTP
Jeff King	COG/DEP
Sunil Kumar	COG/DEP
Erin Morrow	COG/DTP
Jane Posey	COG/DTP
Joan Rohlf	COG/DEP
Daivamani Sivasailam	COG/DTP