MOVES Task Force Meeting

January 19, 2010, 10:00 AM – 12:00 PM
Meeting Summary

Present:
Diane Franks, MDE – Co-Chair
Jim Ponticello, VDOT - Co-Chair
Randy Carroll, MDE
Jessica Daniels, DDOE
Sonya Lewis-Cheatham, VDEQ
Bob Owolabi, Fairfax County DOT
Howard Simons, MDOT
Kanti Srikanth, VDOT
Chris Voigt, VDOT
Cecilia Ho, FHWA (phone)
Mohamed Khan, MDE (phone)

Staff:
Mike Clifford, Daivamani (Siva) Sivasailam, Eulalie Lucas, Yu Gao, Erin Morrow, JC Park, Daniel Son, Joan Rohlfs, Jeff King, Sunil Kumar

Item 1: Call to Order/Introductions
The meeting of the Task Force was called to order by co-chair Jim Ponticello, which was followed by introductions of members and staff including participants who joined the meeting by phone.

Item 2: Review of November 17th Meeting Highlights
The meeting highlights were accepted without changes.

Item 3: Review of MOVES 2010 Technical & Policy Guidance and Implications
Jim announced that the final version of the MOVES model (MOVES 2010) has been released along with some of the policy and technical guidance. There has not yet been an announcement in the Federal Register. Sunil spoke to a one page handout on technical guidance for SIP preparation for model options and inputs. MOVES 2010 has three options for domain/scale – only county and custom domains are acceptable for SIP/conformity. Both inventory and emission rate output options are acceptable. A quick analysis of the advantages and disadvantages of the two shows that runtimes for emission rate outputs are significantly higher; however, emissions rates developed for a state (using a custom domain) can be applied to individual counties which would be acceptable for a SIP but not for NEI. Emissions rates are not calculated by speed as in Mobile 6, but by road type or vehicle type by speed bins. Sunil was asked what the difference in emissions would be using the emissions rate approach versus the inventory approach. Sunil responded that EPA has not provided any comparative analysis in the technical guidance or other documents.

Jim said that he sees two main issues that the task force will have to address, whether to prepare emissions based on MOVES inventory approach or emission rate approach, and whether to create custom domains at the state level or model individual counties. Mike commented that whatever approach is chosen will have to be used for both SIP and conformity and sensitivity tests will need to be completed to back-up the decision for the final approach. He continued to say that while a post-processor has been used in the past that does not commit us to using it in the future as disaggregation of the trip cycle was important years ago to assess the effect of control strategies, but now it may be more efficient to model on an aggregate basis.

Sunil continued discussing the guidance. The only permissible option for time period is "hour;" local data are required for ecological (MET) data, and for the ozone season the MET data can either be from July or an average of the three month period that best represents ozone season; and the default fuel programs and default I/M programs in MOVES are from the 2005 NEI which should be checked and updated with local data if necessary.

Sunil spoke to a handout on MOVES policy guidance for SIPs. There was discussion on when the use of MOVES 2010 will be required for conformity and how this could affect the SIP schedule. Cecilia clarified that the release of the final version of MOVES does not trigger a new conformity. She explained that a conformity assessment that is initiated before the end of the two year grace period (which begins with a notice in the Federal Registry) can be completed using Mobile 6 provided that the budgets have not been set using MOVES. There was concern about the one-year clock in which to show conformity to the new ozone standards that are anticipated to be released in August 2010 and how that may conflict with the grace period for adopting MOVES.

Item 4: Review of MOVES 2010 Local Data Inputs

Siva spoke to a memo about local inputs and EPA-provided data converters. There were no changes to the vehicle age distribution and vehicle population converters with the release of MOVES 2010. For VMT, MOVES 2010 guidance recommends developing local VMT by developing a factor to get to VMT by hour. EPA now recommends we develop an average speed distribution instead of using default. Staff will test the new converter and provide a report next month.

Sunil spoke to a handout on temperature, fuel, and I/M programs. For temperature and relative humidity, he showed charts plotting Mobile 6 (based on the top 10, 8-hour ozone days from 2002-2004) vs. MOVES 2010 default for ozone season and annual. In general, Mobile 6 temperature and relative humidity were higher than MOVES 2010 default. This spurred discussion on whether it is still necessary to use the top 10 ozone days over the previous three years for temperature and relative humidity data as was used for Mobile 6. It was generally agreed to move away from using the Mobile 6 temperature and relative humidity data and the task force needs to decide over the next month or two whether to prepare local data or use MOVES 2010 default

Item 6: Status of FHWA's MOVES-Related Research Projects

Item 6 was moved ahead of Item 5. Cecilia briefly discussed four FHWA-sponsored MOVES-related research projects related to testing, evaluating, and validating new emissions models and

methodologies. She was unable to share details about the scope of each project but was able to say that the timeframe for all of the projects was 12-18 months and drafts of the reports would be released for comment. Cecilia also informed the task force that results using MOVES 2009 at the MOVES session at TRB were missing start emissions and the results shown were not a fair comparison.

Chris Voigt noted that, while all of the planned studies are of interest, VDOT would be particularly interested in the one relating to categorical determinations. VDOT has had significant success with this approach for carbon monoxide in the past, effectively reducing the need for MOBILE modeling for CO hotspot analyses for smaller projects implemented within Virginia. Similarly, categorical determinations based on MOVES would be expected, once approved by EPA and the US DOT, to reduce the need in the future for detailed project-level modeling by state and local agencies for many smaller projects. Given the grace period that has been established for the introduction of MOVES for project-level modeling is two years, however, it was recommended that FHWA place a priority on this study and aim to complete categorical determinations for both CO and particulate with EPA in this timeframe, i.e. before the end of the grace period. Cecilia asked if the group would help with reviews for this study, which was agreed.

Item 5: Review of MOVES 2009 Test Results
Eulalie referred to the memo which she presented at the January TPB Technical Committee meeting. The results in the memo are from MOVES 2009 and will change once the runs are completed with MOVES 2010. The results from "all default" should be compared with "Test 5" which used all local inputs that were available (MET data and fuel programs still outstanding).

Eulalie was asked if all of the test runs were going to be rerun with MOVES 2010 and she replied yes and that it would be advantageous for staff if the task force were to reach a decision on the MET data before beginning the new runs. Mike stated that there are 6-8 parameters in the second task of the MOVES work program to determine local inputs and for the next meeting, staff will prepare recommendations for the local inputs.

Item 7: Next Meeting/Agenda Items
The next meeting will be held on February 16, 2010.

Item 8: Other Business
There was no other business.

Meeting adjourned at 12:55 pm.