Recommendations to Mobile Sources Technical Review Subcommittee

Professor Matthew Barth, UCR March 1, 2017

Process

- Work Group provides recommendations to MSTRS (not to EPA directly)
- Goal is to provide suggestions to MSTRs by late May/early June meeting
 - Recommendations needed in this time frame for consideration for next MOVES release
- Work Group will provide more refined recommendations to MSTRS at a later time:
 - Will include short-term recommendations for MOVES updates in the next version
 - Will include longer term recommendations on general directions for MOVES future development

Work Group Charter

- The MOVES Review Work Group shall serve as an advisory group to the MSTRS on:
 - Evaluating data sources and analysis methods proposed for use in developing **emission rates** to be used in the MOVES model.
 - Evaluating data sources and analysis methods proposed for use in developing fleet and activity inputs to be used in the MOVES model.
 - Evaluating data sources and analysis methods proposed for use in developing emission adjustment factors to be used in the MOVES model.
 - Evaluating the **format** of MOVES input and output **structures** and the usefulness of these formats in meeting the needs of modelers developing State Implementation Plans (SIPs) and transportation conformity determinations.

MOVES Overview and Plans for the Future

- What are the Work Group's priorities among emissions and activity data, model structure, model evaluation....?
- We will continue working on these long-term recommendations through the life of the Work Group.

Nonroad Model Plans and Data

- Starting with data updates to equipment population growth.
- Improving documentation.
- Looking for feedback on long-term updated design.

Simplifying MOVES Source Types and Ramps

- Onroad Source Types— Can we get rid of some?
 - Support for merging various source types.
 - Interest from some in keeping most source types available as options.
 - Are there source types that should be dropped in the short-term?
- Ramps— Can we remove them from national and county level?
 - Ok to drop ramps from all but project level

Onroad Vehicle Population & Activity Update

- Support keeping as up-to-date as possible.
- Continue using variety of data sources to provide information at regional and county level, as well as national.
- Develop skills and resources to mine connected-vehicle data sets.

Updating Hoteling Hours in MOVES

- Move ahead as planned.
- Use available data sources for validation and/or updates.

Heavy Duty Running Exhaust Updates

- For long-term, consider changing the operating modes used for heavy-duty (as well as light-duty)
- Take advantage of the latest data from more recent in-use heavy duty projects.

Idling

- Update HD extended idling emission rates and rates for auxiliary power units (APUs) with new data.
- Thoughts on plans to incorporate additional off-network idle time based on instrumented vehicle data?

Next Steps

- Examine summary of comments, add more and identify the ones you feel are most important
- Matt Barth (<u>barth@cert.ucr.edu</u>) will consolidate feedback (discussion and emails) and will prepare 5 slides for MSTRS meeting in late May/early June
- Keep thinking about long term improvements & recommendations & directions for MOVES, which will be the topic for MSTRS at a later date