

1. Charge Questions and Scope of the Peer Review

In addition to reviewing the Brake and Tire Wear Emissions/Temperature Effects Report, the peer reviewers were also asked to review Chapter 2 (Temperature Adjustments) of the MOVES2013 Highway Vehicle Temperature, Humidity, Air Conditioning, and Inspection and Maintenance Adjustments Report. Responses were requested to five general questions and one catch-all question for both documents. Two report-specific charge questions were also included, one for the Brake and Tire Wear Emissions/Temperature Effects Report and another for Chapter 2 (Temperature Adjustments) of the MOVES2014 Highway Vehicle Temperature, Humidity, Air Conditioning, and Inspection and Maintenance Adjustments Report. These are repeated below.

1.1. General Charge Questions

The general charge questions were as follows:

1. Does the presentation give a description of selected data sources sufficient to allow the reader to form a general view of the quantity, quality and representativeness of data used in the development of emission rates? Are you able to recommend alternate data sources might better allow the model to estimate national or regional default values?
2. Is the description of analytic methods and procedures clear and detailed enough to allow the reader to develop an adequate understanding of the steps taken and assumptions made by EPA to develop the model inputs? Are examples selected for tables and figures well chosen and designed to assist the reader in understanding approaches and methods?
3. Are the methods and procedures employed technically appropriate and reasonable, with respect to the relevant disciplines, including physics, chemistry, engineering, mathematics and statistics? Are you able to suggest or recommend alternate approaches that might better achieve the goal of developing accurate and representative model inputs? In making recommendations please distinguish between cases involving reasonable disagreement in adoption of methods as opposed to cases where you conclude that current methods involve specific technical errors.
4. In areas where EPA has concluded that applicable data is meager or unavailable, and consequently has made assumptions to frame approaches and arrive at solutions, do you agree that the assumptions made are appropriate and reasonable? If not, and you are so able, please suggest alternative sets of assumptions that might lead to more reasonable or accurate model inputs while allowing a reasonable margin of environmental protection.
5. Are the resulting model inputs appropriate, and to the best of your knowledge and experience, reasonably consistent with physical and chemical processes involved in exhaust emissions formation and control? Are the resulting model inputs empirically consistent with the body of data and literature that has come to your attention?

The catch-all charge question was as follows:

1. Please provide any additional thoughts or review of the material you feel important to note that is not captured by the preceding questions.

1.2. Report-Specific Charge Question: Brake and Tire Wear Emissions / Temperature Effects Report

The question specific to the review of the Brake and Tire Wear Emissions/Temperature Effects Report was as follows.

1. MOVES2014 estimates total PM2.5 and PM10 emission rates from brake and tire wear. Additional PM2.5 speciation capabilities have been incorporated in MOVES2014 for exhaust emission processes. What recommendations do you have for EPA for incorporating the PM2.5 and PM10 speciation of tire and brake wear for future versions of MOVES?

1.3. Report-Specific Charge Question: Chapter 2 (Temperature Adjustments) of the MOVES2014 Highway Vehicle Temperature, Humidity, Air Conditioning, and Inspection and Maintenance Adjustments Report

The question specific to the review of Chapter 2 (Temperature Adjustments) of the MOVES2014 Highway Vehicle Temperature, Humidity, Air Conditioning, and Inspection and Maintenance Adjustments Report was as follows.

1. For the MOVES2014 update of Chapter 2: Temperature Adjustments, certain temperature adjustments were updated with new data (e.g. HC and CO cold starts from later model year gasoline vehicles, PM running effect for 2005+ my vehicles), while other adjustments were deemed sufficient from MOVES2010 and were left unchanged (e.g. HC and CO cold starts for pre-2000 MY vehicles, PM and NOx cold starts, PM running effect on pre-2005 vehicles). Did the EPA give sufficient description for its rationale for making or not making these changes in MOVES2014?