

**WA 0-14: Peer Review of
“Fuel Supply Defaults: Regional Fuels and the Fuel Wizard in MOVES201X”**

Peer Review Charge

1. Purpose

Over 125 million Americans experience unhealthy levels of air pollution. Motor vehicle exhaust is a particularly important source of exposure to air pollutants, with more than 50 million people living, working, or going to school in close proximity to high-traffic roadways. The U.S. Environmental Protection Agency’s (EPA) Office of Transportation and Air Quality (OTAQ) is tasked with identifying policy options to reduce ozone, particulate matter (PM), and nitrogen dioxide emissions, among other pollutants, from light-duty vehicles (LDVs) in the U.S. As new policy options are brought forth, there is a need to evaluate their soundness and utility.

Models can be used to help address questions that may be too large to study directly but may yield to approximations from smaller sets of real data. These models can provide insights into how drivers will change their vehicle operating patterns in response to, for example, a required increase in fuel economy across the LDV fleet. Tools, like EPA’s MOrtor Vehicle Emission Simulator (MOVES), describe the result of various inquiries into the nature of fuel and vehicle emission interactions. Specifically, the MOVES model estimates the impact of LDV, heavy-duty vehicle, and nonroad equipment exhaust and/or evaporative emissions on air quality in the U.S.

EPA is updating the MOVES model to include information from “Fuel Supply Defaults: Regional Fuels and the Fuel Wizard in MOVES201X,” and thereby refine the model’s ability to estimate accurately the emissions impacts of motor vehicles. This report describes proposed updates to MOVES data and methods.

ICF, which is under contract with OTAQ to facilitate a peer review of the aforementioned report, has selected you as a reviewer. This charge letter provides you with a detailed scope of services for this review. It includes:

- A list of general questions for your review, with instructions;
- The review schedule;
- A draft copy of the report for review; and
- A list of materials, including a Conflict of Interest (COI) form, to be submitted to ICF at the conclusion of the review.

2. Charge Questions

EPA is seeking your review of and comments on the draft report entitled, “Fuel Supply Defaults: Regional Fuels and the Fuel Wizard in MOVES201X.” EPA requests that you review the selected methods and underlying assumptions, their consistency with the current science as you understand it, and the clarity and completeness of the presentation. For this review, no independent data analysis is required. Rather, EPA asks that you assess whether the information provided is representative of the state of current understanding, and whether incorporating the information into the MOVES model will result in appropriate predictions and conclusions. The draft report references other MOVES201X draft reports. We will provide these to you at your request, but emphasize that EPA does not anticipate they will be needed for this work.

Your written comments should address, sequentially, the substantive content of the draft report that you are charged with reviewing. Comments on organization, formatting, and other minor issues are welcome, but should be provided separately.

EPA has provided the following general charge questions to define the scope of your review. EPA does not expect individual responses to these questions, but would like the questions to help guide your comments. Please note that you are welcome to identify additional topics or depart from the questions as necessary to best apply your particular area(s) of expertise. You may also include any additional comments that are not specific to the charge questions using the table provided.

In your written comments, you should distinguish between recommendations for clearly defined improvements that can be readily made based on data or literature reasonably available to EPA, and improvements that are more exploratory or dependent on information not readily available to EPA. Your comments should be sufficiently clear and detailed to allow readers to understand thoroughly their relevance to the subject report.

EPA requests that you treat all materials as confidential. Do not release or discuss with others the peer review materials or your comments. Your comments will be listed as an appendix to EPA's final published report, along with EPA's responses to them.

If you are unclear about what is required to complete this review or need additional background material, please contact Ira Dassa at ICF by telephone (443-573-0551) or email (Ira.Dassa@icf.com).

Charge Questions

1. Does the presentation describe data sources sufficiently to allow the reader to form a general view of the quantity, quality, and representativeness of data used in the analysis? Please note that some or all of the data used as part of these analyses are considered Confidential Business Information, and cannot be provided for review directly. The data itself have already received review, and are not the focus of this peer review. Are you able to recommend alternate data sources that 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 while developing the model inputs? Are examples selected for tables and figures well-chosen and effective in improving the reader's understanding of 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 for alternate approaches, please distinguish between instances involving reasonable disagreement in adoption of methods as opposed to instances where you conclude that current methods involve specific technical errors.
4. 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 are appropriate and reasonable? If not, and you are

able to do so, please suggest alternative assumptions that might lead to more reasonable or accurate model inputs.

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 fuel distribution, fuel blending, and historical and projected trends in mobile source fuel properties? Are the resulting model inputs empirically consistent with the body of data and literature with which you are familiar?

ADDITIONAL OVERALL COMMENTS PROVIDED (NOT CHARGE QUESTION-SPECIFIC):
ADDITIONAL COMMENTS BY SPECIFIC REPORT CHAPTER:

3. Schedule

The schedule for this peer review is as follows:

- September 11, 2017 (tentative): Conference call with EPA, ICF, and all reviewers to address any preliminary questions.
- September 25, 2017: Comments/review due to ICF via email (send to Ira.Dassa@icf.com, with a cc to Lindsay.Kirschner@icf.com).

ICF will arrange the teleconference between the reviewers, relevant EPA staff, and ICF. The purpose of this teleconference will be to answer any questions you and the other reviewer may have regarding the EPA peer review process and the particular material you are reviewing. ICF will contact you in advance to assess the best time for you and the other reviewer to participate in the conference call.

Any questions that you have after this teleconference should be directed to ICF, which will then seek resolution from EPA. Any answer provided and the question to which it refers will be shared with the other reviewer.

4. Materials to Submit

Upon completion of your review, please submit the following to ICF:

1. A cover letter that states:
 - Your name; and
 - The name and address of your organization.
2. A completed COI form (attached).

3. Your written comments.

5. Material for Review

The following files are appended:

- *Fuel Supply Defaults Regional Fuels and the Fuel Wizard in MOVES201X.docx*
- *COI Form.pdf* (please complete this and submit it with your review)