ADDENDUM/Appendix A: Specific QUESTIONS for Contractor PEER REVIEW CHARGE Letter

The peer-review consists of the material in the attached documents:

2 MOVES2014 Evaporative Report.pdf

Several test programs dealing with evaporative emissions have been underway and completed over the past decade to bolster our understanding of evaporative emissions processes and to understand the effects of aging on the newer technology enhanced evaporative emissions vehicles. These programs are listed in Chapter 2 of the report. Several of the studies were conducted with the Coordinating Research Council (CRC) and therefore underwent substantial review processes. Three other reports have been peer reviewed on other studies and models developed. This peer review will focus on how we used the data collected to characterize evaporative emissions of the in-use fleet of vehicles in MOVES

The reports reference other MOVES2014 draft reports. We will provide these to you at your request.

We are submitting this material for you to review selected methods and underlying assumptions, their consistency with the current science as you understand it, and the clarity and completeness of the presentation. The attached list of charge questions is designed to focus your review on specific topics related to the report. For this review, no independent data analysis or information summary is required. Rather, we ask that you assess whether the information provided is representative of the state of current understanding, and incorporating the information in MOVES will results in appropriate predictions and conclusions.

1. Does the document 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 that might be a better source for estimating 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 evaporative emissions

formation and control? Are the resulting model inputs empirically consistent with the body of data and literature that has come to your attention?

6. Compared to current methods, is the proposed methodology for estimating evaporative emissions a significant improvement? Would a simpler application of the ideas contained in this method be adequate? Are there other existing models for evaporative emissions that might be possible candidates for inclusion in MOVES?