

Memorandum

Date: July 28, 2010
To: MWAQC
From: Sunil Kumar, Sr. Environment Engineer, COG/DEP
Subject: MOVES and Air Quality Planning and Transportation Conformity Schedules

Introduction

The purpose of this memorandum is to outline the schedules for various air quality planning and transportation conformity activities in light of the release of a new EPA onroad mobile model called MOVES2010. There is a federally-required process to guarantee that expected transportation emissions in a new plan are consistent and do not exceed limits or “budgets” of pollutant emissions in the region’s air quality plan.

EPA released the MOVES2010 model in December 2009, which was published in the Federal Register on March 2, 2010. This model replaced the existing Mobile6.2 model and will be required for developing any new air quality plan such as, the upcoming State Implementation Plan (SIP) for the 2008 or 2010 ozone standard expected to be submitted by December 2013. Also all transportation conformity analyses initiated after March 2010 will have to be done using MOVES after a two year grace period ends in March 2012.

MOVES Vs Mobile6.2

The MOVES model is significantly different from the Mobile6.2 model in the structure, input data requirements, and emissions estimation for various criteria pollutants (e.g., VOC and NO_x) and greenhouse gas pollutants (e.g., CO₂ and N₂O). For this reason, a Task Force was set up at COG to develop a methodology and input data for emissions development using MOVES. The MOVES Task Force found an increase of 6%, 44%, and 132% in VOC, NO_x, and PM_{2.5} emissions respectively for MOVES2010 compared to Mobile6.2 based on a preliminary analysis. The Task Force is expected to provide its final recommendations around September 2010. MWAQC and the Transportation Planning Board (TPB) staff will then develop mobile emissions based on the methodology and the inputs suggested by the Task Force for MOVES. This will give an idea of the actual differences in emissions between the two models.

MOVES2010 and Air Quality Planning and Transportation Conformity Issues

The Washington region submitted SIPs for the 1997 ozone and fine particle standards in 2007 and 2008 respectively. These plans used Mobile6.2 for developing the onroad mobile emissions inventories and budgets. Currently the mobile budgets against which the transportation conformity analyses are done are based on Mobile6.2. However, beginning March 2012 the transportation conformity analyses will have to be done using MOVES, whose emissions are higher compared to Mobile6.2. This could potentially pose difficulties for conforming against the mobile budgets in the ozone and fine particle SIPs mentioned above. For this reason, various options are being looked into avoid any potential conformity issues. One such option is the revision of the mobile inventories and budgets in the ozone and fine particle SIPs submitted above with MOVES. MWAQC and the

Transportation Planning Board (TPB) will be weighing on this and other options in the coming months.

MOVES2010 and Air Quality Planning and Transportation Conformity Schedules

Following flow-chart shows the schedule for various air quality planning and transportation conformity activities: