Memorandum

October 16, 2010

To: MOVES Task Force

From: Eulalie Lucas *ECL*

Department of Transportation Planning

Subject: Results of MOVES2010 Model Sensitivity Tests: Final scenario for average speed testing.

Introduction

This memo transmits results associated with the final scenario run to introduce local speeds into the County Data Manager (CDM). For this exercise staff has been preparing inputs for year 2005 and for Montgomery County only. Inputs for all jurisdictions and milestone years from the AQC analysis of the 2010 CLRP and the 2011-2016 TIP will be applied and results presented in phases over the next few MOVES Task Force meetings.

The following bullets briefly describe inputs for each speed scenario run and the one test for metrological data. Keep in mind all other inputs e.g., Vehicle population and vehicle miles of travel are the same for all scenarios.

Analysis

- Base scenario MOVES2010 default average speeds.

- Post Processor: Speeds for all vehicle types from MWCOG emissions post-processor.

- Default and Refuse Truck: MOVES2010 default average speeds with local refuse truck speeds.

- Default & Bus: MOVES2010 default average speeds with local average speeds for transit and school bus.

- Sip_Temp: MOVES2010 inputs for all variables with metrological data from the 8-hour Ozone SIP and the annual PM25 and NOx SIP.

- Composite: All local data which includes post-processor speeds, local refuse truck, school and transit bus speeds, and local metrological data.
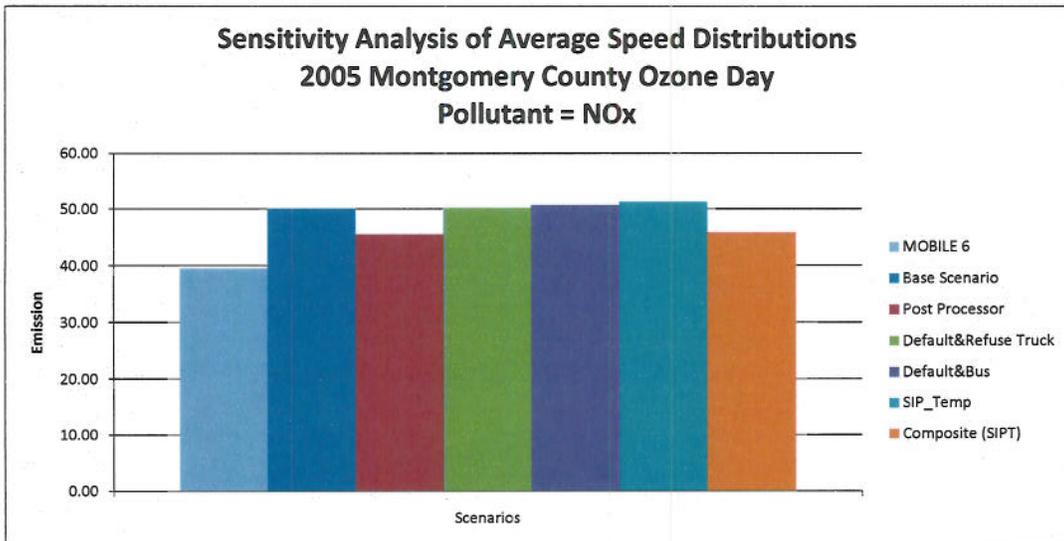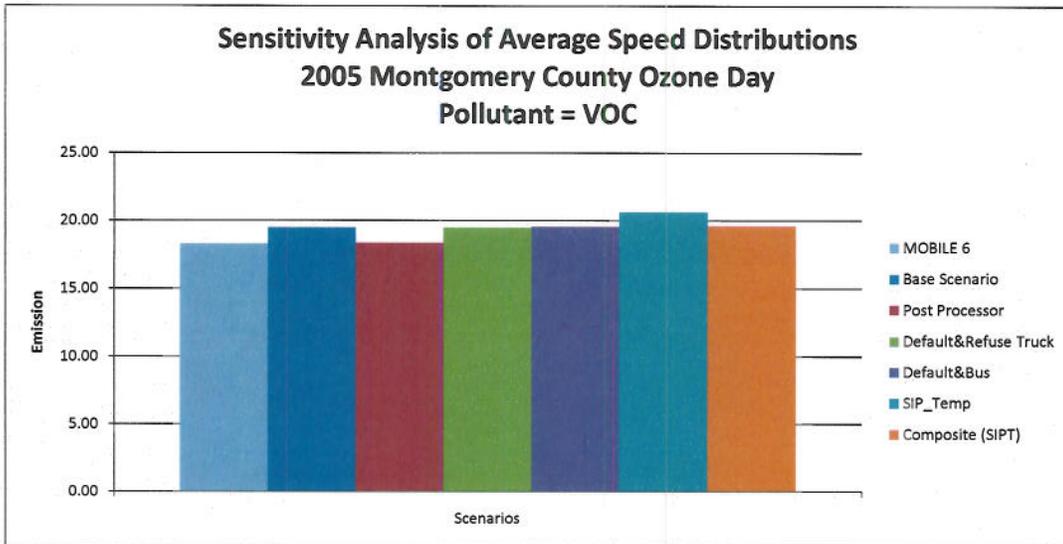
Results

Results are shown in the attached graphs. Graph 1 for ozone day pollutants, VOC and NOx and Graph 2 illustrate results for annual pollutants PM25 and NOx.

Next Steps

As indicated earlier our next step involves using all available local data formatted for the CDM with MOVES2010a with travel data provided from the 2010 CLRP and the FY 2011-2016 TIP.

Graph 1

Sensitivity Analysis of Average Speed Distributions
2005 Montgomery County Ozone Day
Pollutant = VOC

Sensitivity Analysis of Average Speed Distributions
2005 Montgomery County Ozone Day
Pollutant = NOx

Graph 2

**Sensitivity Analysis of Average Speed Distributions
2005 Montgomery County Annual
Pollutant = CO_2**

Legend: MOBILE 6, Base Scenario, Post Processor, Default&Refuse Truck, Default&Bus, SIP_Temp, Compostie

**Sensitivity Analysis of Average Speed Distributions
2005 Montgomery County Annual
Pollutant = NOx**

Legend: MOBILE 6, Base Scenario, Post Processor, Default&Refuse Truck, Default&Bus, SIP_Temp, Compostie

**Sensitivity Analysis of Average Speed Distributions
2005 Montgomery County Annual
Pollutant = PM2.5**

Legend: MOBILE 6, Base Scenario, Post Processor, Default&Refuse Truck, Default&Bus, SIP_Temp, Compostie