

## **APPENDIX E**

### **Highway Vehicle Sources Inventory Information**

**Bureau of Air Quality  
Department of Environmental Protection**

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# **APPENDIX E**

## **Pittsburgh-Beaver Valley Nonattainment Area: Emissions Inventory for the PM<sub>2.5</sub> NAAQS**

### **Technical Support Document *Mobile Source Highway Emissions Inventory***

#### **Executive Summary**

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**Pittsburgh-Beaver Valley Nonattainment Area: Mobile Source Emissions Inventory**  
**Executive Summary**  
March 2009

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- Appendix E-2:** Pittsburgh-Beaver Valley Nonattainment Area PM<sub>2.5</sub> Emissions Results  
(By Year, Functional Class and Vehicle Type)
- Appendix E-3:** MOBILE6.2 Input Parameter Summary
- Appendix E-4:** MOBILE6.2 Sample Input Files
- Appendix E-5:** Traffic Growth Forecasting System

# INTRODUCTION

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This technical document supports the PM<sub>2.5</sub> State Implementation Plan (SIP) for the Pittsburgh-Beaver Valley nonattainment area (Allegheny County not including the townships part of the Liberty-Clairton nonattainment area; Lincoln Borough, Clairton City, Glassport Borough, Liberty, Port Vue Borough; Elderton Borough, Plumcreek, and Washington Townships in Armstrong County; Beaver County; Butler County; Monongahela Township in Greene County; Taylor township south of New Castle City in Lawrence County; Washington County; and Westmoreland County), Pennsylvania. To meet the emission inventory requirements of section 172(c)(3) of the Clean Air Act, a regional mobile source highway inventory has been prepared for direct and precursor PM<sub>2.5</sub> emissions.

The pollutants included in the inventory are primary emissions (including condensibles) of PM<sub>2.5</sub> and PM<sub>10</sub> and the precursor emissions of VOC, CO, NO<sub>x</sub>, SO<sub>2</sub>, and NH<sub>3</sub>.

This document provides the 2002 base year and 2009 projections of mobile (highway) vehicle miles of travel (VMT) and annual PM<sub>2.5</sub> direct and precursor emissions that are needed to satisfy the SIP requirements. The following sections summarize the methodology and data inputs used to produce the mobile emissions inventory.

## *Methodology*

Guidance documents from EPA have been used to develop the base and future year emissions inventories for the Pittsburgh-Beaver Valley nonattainment area. They include:

- *Guidance for Creating Annual On-Road Mobile Source Emission Inventories for PM<sub>2.5</sub> Nonattainment Areas for Use in SIPs and Conformity*, US EPA Office of Transportation and Air Quality, dated August, 2005.
- *User's Guide to MOBILE 6.1 and MOBILE6.2, Mobile Source Emission Factor Model*, EPA420-R-02-028, dated August 2003.
- *Technical Guidance on the Use of MOBILE6.2 for Emission Inventory Preparation*, US EPA Office of Air and Radiation, and Office of Transportation and Air Quality, dated August 2004.

Mobile source emission factors have been calculated using EPA's MOBILE6.2 emission model. The methodologies used to produce the emission results conform to the recommendations provided in the above guidance documents. A mix of local data and national default (internal to MOBILE6.2) data has been used for this submission. Local data has been used for the primary data items that have a significant impact on emissions. These include:

- VMT and speeds
- Vehicle type mixes
- Vehicle age distributions
- Hourly distributions
- Temperatures/humidity
- Inspection/Maintenance parameters
- Fuel program characteristics

For this submission, the 2002 base year emission estimates are consistent with past analyses and submissions utilizing 2002 traffic and environmental data. Future year estimates for 2009 are based on the latest available 2005 traffic data, PENNDOT growth rates, and environmental parameters. Current assumptions are used for control strategies (e.g. Inspection-Maintenance, Pennsylvania Clean Vehicle programs) and fuel characteristics. The analysis methodology is consistent with past statewide inventory efforts including the 2005 National Emissions Inventory (NEI) submission. Annual VMT and emissions are produced using a sum of 12 monthly analysis scenarios. A detailed methodology is provided in **Appendix E-1**. Detailed information on the Commonwealth’s Traffic Growth Forecasting System is provided in **Appendix E-5**. The following sections address the key input data sources and analysis tools used for the preparation of the emissions inventory.

***Inventory Submission Materials***

To complement this document, attachments have been provided with additional detail regarding the analysis methodology, the MOBILE6.2 input parameters, and the output VMT and emission results for the region. These include:

**Table 1: Summary of Appendices**

<b>Appendix</b>	<b>Title</b>	<b>Description</b>
<b>E-1</b>	Mobile Source Highway Emissions Inventory – An Explanation of Methodology	Provides summary of methodology used to calculate the VMT and emissions.
<b>E-2</b>	Pittsburgh-Beaver Valley Nonattainment Area PM <sub>2.5</sub> Emission Results (By Year, Functional Class and Vehicle Type)	Provides county by functional class and county by vehicle type annual emission tables for 2002 and 2009.
<b>E-3</b>	MOBILE6.2 Input Parameter Summary	Provides summary of input parameters related to traffic data sources, fuel, weather, I/M, and other MOBILE6.2 related parameters.
<b>E-4</b>	MOBILE6.2 Sample Input File	Provides examples of the MOBILE6.2 input files.
<b>E-5</b>	Traffic Growth Forecasting System	Provides detailed explanation of the Commonwealth’s revised methodology for VMT forecasting based on socioeconomic and demographic projections.

## DATA SOURCES AND ANALYSIS TOOLS

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This section provides a summary of the key input data and analysis tools used for producing the regional emissions inventory. The key elements to the modeling protocol are described in the sections below. A more detailed description of the analysis process and tools is provided in the methodology report in **Appendix E-1 and E-5**.

### *Analysis Tools*

The inventory analysis utilizes several key software/programs for producing the county emissions totals. These tools are outlined in **Table 2**.

**Table 2: Summary of Inventory Analysis Tools**

<b>Tool</b>	<b>Purpose</b>
MOBILE6.2	Produces emission factors for each pollutant in Grams/Mile for direct PM <sub>2.5</sub> and NOx
PPSUITE	Processes the highway data, Calculates hourly congested speeds for each state roadway segment, Prepares MOBILE6.2 input files, Processes MOBILE6.2 output files
Custom SCC Output Reformatting Program	Prepares output database files by EPA's Source Classification Codes (SCC)

The inventory reflects the highway mobile source emission estimations using EPA's MOBILE6.2 emission model, which accounts for changes in vehicle technology and regulations. MOBILE6.2 is a software application program that provides estimates of current and future emissions from highway motor vehicles. All states other than California must use MOBILE6.2 for the development of SIP and conformity emission analyses. The model can estimate both direct particulate matter emissions and the emissions of certain particulate precursors for cars, trucks, buses, and motorcycles.

PPSUITE represents an enhanced version of the Post Processor for Air Quality (PPAQ) software system that has been used for previous inventory and conformity submissions in Pennsylvania. The software has undergone significant revisions to ensure consistency with the MOBILE6.2 emissions model. PPSUITE plays a key role in the development of hourly roadway speed estimates, which are supplied as input to the MOBILE6.2 model. The software is also used to prepare the MOBILE6.2 input shell and to process the MOBILE6.2 outputs.

Custom programs have also been prepared to translate the VMT and emission results into a database file indexed by EPA's Source Classification Code (SCC). This code represents combinations of vehicle type groupings, functional classes, and time periods.

## ***Traffic Data Source/Fleet Data Inputs***

The PENNDOT Roadway Management System (RMS) data serves as the primary highway data source for the county and functional class VMT estimates. The data source is used to provide a “snapshot” of the regional roadway system and volumes in 2002 and 2005. The data includes the average annual daily traffic (AADT) volumes for all state roadways in Pennsylvania. To account for additional local roadway VMT and to ensure consistency with reported HPMS totals, the 2002 and 2005 VMT totals are adjusted to match the annual HPMS VMT totals reported to FHWA.

Annual VMT and emission results are based on a MOBILE6.2 analysis for an average day in each of the 12 months. These results are then expanded to monthly sub-totals and then to an annual total. The daily and monthly seasonal factors, used to adjust the AADT traffic volumes, are developed from data contained in the document, *2005 Pennsylvania Traffic Data*, as prepared by PENNDOT’s Bureau of Planning and Research. The seasonal and daily factors provided in this document are based on statistical analyses of 2005 traffic counts taken at permanent and in-pavement ATR (automatic traffic recorder) locations throughout the state. The factors are used to adjust AADT volumes to an average day in each month, and the PPSUITE software calculates unique congested speeds for each roadway segment.

PPSUITE calculates congested speeds by hour of the day for each roadway segment and provides the information as input to the MOBILE6.2 software. To disaggregate the daily RMS volumes to hourly volumes, auto and truck hourly pattern data from PENNDOT’s *2005 Pennsylvania Traffic Data* report are used to determine the temporal variations of future year traffic volumes.

Vehicle mix patterns are calculated for each county / functional class grouping utilizing a combination of 2002/2005 RMS truck percentages and MOBILE6.2 default vehicle mix distributions. The development of vehicle type pattern data input to the MOBILE6.2 software is described in more detail in **Appendix E-1**. The distribution of vehicles to fuel type (diesel, gas) is determined from the MOBILE6.2 default diesel sales fractions.

Vehicle age distributions are input to MOBILE6.2 for each county based on registered vehicles that reflect July 1 summer conditions. These distributions reflect the percentage of vehicles in the fleet up to 25 years old and are listed by the 16 composite MOBILE6 vehicle types. 2002 and 2005 vehicle age distributions have been used for this inventory from the PENNDOT Bureau of Motor Vehicles Registration Database. Due to insufficient data, only data for light-duty vehicles are used as local inputs. The heavy-duty vehicles use the internal MOBILE6.2 defaults.

## ***Traffic Growth Assumptions***

Traffic forecasting plays a pivotal role in estimating future year emissions for each Pennsylvania county and region. The expected volume of traffic, measured in vehicle miles of travel (VMT), needs to be estimated for each county, or group of counties, for each relevant future year. This becomes the basis for further disaggregation of VMT to the roadway types on which the miles are expected to occur, vehicle types and vehicle age.

This PM<sub>2.5</sub> inventory utilizes a VMT growth rate projection methodology developed by PENNDOT as documented in the report “*Statistical Evaluation of Projected Traffic Growth, Traffic Growth Forecasting System: Final Report, March 14, 2005*”. As part of that study, a statewide traffic growth forecasting system was developed that incorporates traffic data from PENNDOT’s Traffic Information System and



available socioeconomic forecasts. The study methodology has been shared among PENNDOT, DEP, and other interagency consultation group members, including the Pennsylvania Air Quality Work Group (which includes EPA, FHWA, and representatives from larger PA Metropolitan Planning Organizations (MPOs), and approved by PENNDOT. The methodology contains the following improvements over past statewide forecasting approaches:

- Strong statistical basis and consistent with state of the art.
- Thorough documentation of approach vs. alternatives.
- Increased data robustness through the inclusion of both county-level historical traffic trends from the PENNDOT Roadway Management System (RMS) databases (the basis for VMT reporting to the Federal Highway Administration of USDOT through the Highway Performance Monitoring System (HPMS) and county-based demographic projections from an independent 3<sup>rd</sup> party (Woods and Poole Economics, Inc.).
- Expedient and inexpensive update process.

The data inputs to the traffic growth forecasting system are periodically updated to produce revised forecast growth factors for each county in the state. The frequency of this update is at least every 5 years, consistent with EPA and FHWA “Latest Planning Assumptions” guidance.

The most recent available forecasts, used in the development of this inventory, include historic HPMS VMT through 2005 and use of the *2006 State Profile*, developed by Woods & Poole Economics. The *2006 State Profile* includes historical demographic data and forecasts by year from 1969 through 2030 for every county and Metropolitan Statistical Area (MSA) in Pennsylvania. The county VMT forecast growth rates are developed for four functional classifications in each county: urban interstate, urban non-interstate, rural interstate and rural non-interstate. The PENNDOT statistical VMT forecasting model incorporates historical VMT trends, socio and economic data (households, mean household income), and a relative measure of transportation capacity (lane miles per capita).

The forecasts used for this annual PM<sub>2.5</sub> emissions inventory have been developed to account for potential variability in future regional VMT growth. Variability from the base forecast may be caused by multiple factors which influence vehicle travel, many or most of which may be influenced by outside factors or events. The county-level growth rates from the PENNDOT VMT forecasting system have been evaluated to determine an overall regional growth rate for the nonattainment area. Growth rates were examined for counties within the nonattainment area and for nearby counties that might impact future conditions within the region.

**Table 3** summarizes the assumed projected growth of VMT for future analysis years within the nonattainment area.

**Table 3: Pittsburgh-Beaver Valley Nonattainment Area VMT Growth Assumptions**

<b>Analysis Year</b>	<b>Total Growth From 2002</b>	<b>Annualized Growth From Previous Analysis Year</b>
<b>Allegheny County (Partial)</b>		
2002	-----	-----
2009	9.2%	1.3%
<b>Armstrong County (Partial)</b>		
2002	-----	-----
2009	35.2%	5.0%
<b>Beaver County</b>		
2002	-----	-----
2009	9.4%	1.3%
<b>Butler County</b>		
2002	-----	-----
2009	13.1%	1.9%
<b>Greene County (Partial)</b>		
2002	-----	-----
2009	10.6%	1.5%
<b>Lawrence County (Partial)</b>		
2002	-----	-----
2009	13.1%	1.9%
<b>Washington County</b>		
2002	-----	-----
2009	20.1%	2.9%
<b>Westmoreland County</b>		
2002	-----	-----
2009	7.2%	1.0%

***I/M and Fuel Parameters***

The Inspection Maintenance (I/M) program inputs to the MOBILE6.2 model are based on past and current programs within the Pittsburgh area.

Pennsylvania’s first inspection and maintenance (I/M) program was implemented in 1984 which required applicable vehicles to undergo an annual one-speed idle test. This basic I/M program applied to model-year 1975-1980 gasoline cars and light duty trucks up to 9,000 pounds GVW registered in the 5-county Philadelphia region (Bucks, Chester, Delaware, Montgomery and Philadelphia counties) and the 4-county Pittsburgh metropolitan region (Allegheny, Beaver, Washington and Westmoreland counties).

In October 1997, Pennsylvania began an enhanced I/M Program to include ASM 5015 tailpipe testing, two-speed idling test, gas cap and visual anti-tempering inspection. Model-year 1981 and newer cars and light duty trucks registered in the above nine counties in the Philadelphia and Pittsburgh regions are subject to the enhanced I/M Program. New model years are exempt for the first year.

The Commonwealth's I/M program was upgraded and expanded throughout the state with a phase-in period starting in December 2003 and fully implemented by June 2004. The program test requirements vary by region and include on-board diagnostics (OBD) technology that uses the vehicle's computer for model years 1996 and newer to download potential engine problems that could effect emissions. The program, named PAOBDII, is implemented in the Philadelphia, Pittsburgh, and South Central / Lehigh Valley Regions. The Northern Region receives gas cap and visual inspections and the other 42 counties in the Commonwealth receive a visual inspection. Vehicles subject to the program include 1975 and newer model year gasoline cars and light duty trucks up to 9,000 pounds GVW. New model years are exempt for the first year. The county of registration determines which inspections are required.

Within the current Pittsburgh PM<sub>2.5</sub> nonattainment area, Allegheny, Beaver, Washington, and Westmoreland counties have an I/M program. The I/M program parameters for analysis year 2002 include:

<b>Model Years</b>	<b>Program Parameters</b>
1981 & newer	2500/Idle
1975 & newer	Gas Cap
1975 – 1980	Idle
1975 & newer	ATP

The 2009 I/M program parameters for Allegheny, Beaver, Washington, and Westmoreland counties include:

<b>Model Years</b>	<b>Program Parameters</b>
1996 & newer	PAOBDII Gas Cap
1981 – 1995	2500/Idle
1975 – 1995	Gas Cap
1975 & newer	ATP

Armstrong, Butler, Greene and Lawrence counties fall under the 42 counties in the Commonwealth where vehicles receive only a visual inspection. The new program expanded to these counties during December 2003 to February 2004. There were no prior emission inspection programs in these counties. The program parameters include:

<b>Model Years</b>	<b>Program Parameters</b>
1975 & newer	ATP

The RVP values, varying by month, are consistent with values used for past inventory efforts. These assumptions, as well as the I/M program and fuel parameters, are summarized in **Appendix E-3**.

## ***Weather Data***

Updated weather information has been obtained from the National Climatic Data Center to calculate the minimum and maximum temperatures and absolute humidity data inputs to the MOBILE6.2 model. These assumptions are consistent with the 2005 NEI inventory submission. Average minimum and maximum temperatures and barometric pressure values for each month were obtained for each of the weather station locations in Pennsylvania. In addition, average relative humidity values were obtained for 6-hour intervals (4 intervals during a 24 day period) for each of the 12 months. Absolute humidity values by month were then calculated from the relative humidity, barometric pressure, and temperature for each of the 4 daily intervals using EPA's M6HUMID program. The lowest of these 4 values for each month is determined to be the absolute humidity for that month.

Other weather data required by MOBILE6.2 are assumed as the program defaults. These include the cloud cover, peak sun, and sunrise/sunset options.

## ***Other Inputs***

### Federal Programs

Federal vehicle emissions control and fuel programs are incorporated into the MOBILE6.2 software. The programs include:

- The Federal Motor Vehicle Control Program (FMVCP) including the National Low Emission Vehicle Program (NLEV) and federal Tier II / Low Sulfur Fuel Program;
- Emissions standards for medium and heavy duty vehicles in 2002, 2004 and 2007;
- Stage II and Onboard Refueling Vapor Recovery (ORVR).

*Note: Pennsylvania considers emissions from refueling operations an area source category. While MOBILE6.2 is employed to calculate emissions factors for that source category, refueling emissions are not included in highway vehicle emissions estimations.*

### State Programs

The MOBILE6.2 software also allows for modeling of permissible state activities control emissions from highway vehicles.

In 1998, Pennsylvania promulgated the New Motor Vehicle Emissions Control Program. This program created the Pennsylvania Clean Vehicles Program that required new light-duty highway motor vehicles offered for sale within Pennsylvania to be certified by the California Air Resources Board (CARB) under that Board's Low Emitting Vehicle (LEV) program. The Pennsylvania Clean Vehicles Program does not require the California Zero Emitting Vehicle (ZEV) requirement. As a compliance alternative to the Pennsylvania Clean Vehicles Program, automakers have elected to comply with the National Low Emission Vehicle (NLEV) program. The NLEV program began phase-in starting in model year 1999. The Pennsylvania rules allow the NLEV compliance option for the duration of Pennsylvania's participation in the NLEV program. Pennsylvania is in the process of amending the Pennsylvania Clean Vehicles Program to initiate in model year 2008. As a result, the modeling results assume a 2008 start year for the Pennsylvania Clean Vehicles Program. Benefits from this program are realized in 2008 and beyond.

The methodology employed to estimate the benefits of adopting CA LEV II emissions standards is consistent with the approach provided in the EPA's June 2002 Guidance (*Modeling Alternative NLEV Implementation and Adoption of California Standards in MOBILE6, June 5, 2002*). The approach assumes:

- Tier2 phase-in schedule consistent with MOBILE6.2 defaults
- LEVII phase-in schedule as provided in EPA's June 2002 Guidance
- Assumes PZEV and AT-PZEV vehicles share the same evaporative emissions as LEVII/Tier2 vehicles

**Appendix E-4** contains the modified MOBILE6.2 files used to model the above assumptions. They are consistent with the June 2002 EPA guidance.

The federal Tier 2 / Low Sulfur Fuel Program took effect in 2004 and in practicality supplanted the NLEV program for new light-duty vehicles.

## RESOURCES

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*Guidance for Creating Annual On-Road Mobile Source Emission Inventories for PM2.5 Nonattainment Areas for Use in SIPs and Conformity*, US EPA Office of Transportation and Air Quality, dated August, 2005.

*Consolidated Emissions Reporting*, Federal Register, June 10, 2002

*2005 Pennsylvania Traffic Data*, PennDOT Bureau of Planning and Research, 2005.

*User's Guide to MOBILE6.1 and MOBILE6.2*, Mobile Source Emission Factor Model, EPA420-R-02-028, dated August 2003.

*Technical Guidance on the Use of MOBILE6 for Emission Inventory Preparation*, US EPA Office of Transportation and Air Quality, August 2004.

*Policy Guidance on the Use of MOBILE6 for Emission Inventory Preparation*, US EPA Office of Air and Radiation, January 18, 2002.

*Modeling Alternative NLEV Implementation and Adoption of California Standards in MOBILE6*, EPA, June 5, 2002.

*Technical Guidance on the Use of MOBILE6.2 for Emission Inventory Preparation*, US EPA Office of Air and Radiation, and Office of Transportation and Air Quality, August 2004.

*Statistical Evaluation of Projected Traffic Growth, Traffic Growth Forecasting System: Final Report*, Michael Baker Jr., Inc., March 14, 2005.

**APPENDIX E-1**

**MOBILE SOURCE HIGHWAY EMISSIONS INVENTORY:  
AN EXPLANATION OF METHODOLOGY**

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**APPENDIX E-2**

**Highway Emissions Inventory 2002, 2009**

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**APPENDIX E-3**

**MOBILE6.2 Input Parameter Summary**

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## **APPENDIX E-3**

### **MOBILE6.2 Input Parameter Summary**

**Table E-3-1: General Parameters and Options**

<b>Input parameter</b>	<b>Assumptions Used</b>
Output Pollutants	PM <sub>2.5</sub> , NOX
Analysis Estimate	Annual
<b>Traffic Data</b>	
PENNDOT Roadway Management System (RMS) Source Data Year	2002 for year 2002 2005 for year 2009
HPMS VMT Adjustment Year	
PENNDOT Seasonal Factor Data	
PENNDOT Hourly Pattern Data	
PENNDOT RMS Truck Percentages Used for Vehicle Mixes	
MOBILE6 Defaults Used to Disaggregate Auto and Truck Vehicle Mix Categories	
Traffic Volume Forecasted Growth	Forecasted using PennDOT study growth factors; expanded 2005 volumes to 2009
<b>M6 Parameters</b>	
Emissions Calendar Year	Varies by Analysis Year (2002, 2009)
Evaluation Month	Annual – 12 months 1 – Jan ~ Jun 7 – Jul ~ Dec
Season	1 – May ~ September 2 – January ~ April, October ~ December
CAAA Standards	Enabled
Tier2 Standards	Enabled
North-East NLEV	Included
Pennsylvania Clean Vehicle Program	Included (2009)
2007 HDDV Rule	Enabled
Refueling Emissions	Not Included
Registration Data	02 Local Data + National Truck Defaults for year 2002 05 Local Data + National Truck Defaults for year 2009
Diesel Sales Fractions	National Defaults
VMT by Hour	02 Local Data for year 2002 (varies by cty, fc) 05 Local Data for year 2009 (varies by cty, fc)
VMT by Facility	Each facility run as separate scenario
VMT by Speed	Calculated by PPSUITE
Min/Max Temps	2002 data for year 2002 (from January to December): 28.1/42.8 25.3/44.6 30.8/51 42.2/63.2 45.1/68.3 60.1/81.1 65.2/86.8 62.9/85.2 55.8/78.9 43.3/58.7 33.8/46.7 24.5/36.8 2005 data for year 2009 (from January to December): 22.1/37.3 24.5/40.3 27/43.5 40.9/63.6 45.4/67.1 61.1/82.3 65.4/84.8 64.3/83 56.3/78.2 45/61.8 34.2/53.7 21.6/33.6
Absolute Humidity	2002 data for year 2002 (from January to December): 20.771 18.116 24.722 40.671 48.569 72.679 79.463 73.197 65.71 44.562 28.86 19.911 2005 data for year 2009 (from January to December): 19.967 19.944 21.941 32.295 41.871 79.651 88.323 83.969 62.59 44.913 27.184 17.075
Fuel Program	1
RVP	Allegheny, Armstrong, Beaver, Butler, Washington and Westmoreland Counties: 13.47 – January, February, December 10.95 – March, April, October, November 7.8 – May ~ September Greene and Lawrence Counties: 13.47 – January, February, December 11.04 – March, April, October, November 8.7 – May ~ September

**Table E-3-2: Inspection/Maintenance Program Input Parameters  
(Applies to Allegheny, Beaver, Washington, Westmoreland Counties)**

MOBILE6 I/M Test Types:	Pittsburgh* PA97 with 2500/Idle Program (2002)			Pittsburgh* Annual OBDII and PA97 with 2500/Idle Program (2004 and above)			
	Idle	2500/Idle	GC	OBD I/M	2500/Idle	EVAP OBD & GC	GC
I/M Program	Idle	2500/Idle	GC	OBD I/M	2500/Idle	EVAP OBD & GC	GC
Program Start Year	1984	1997	1997	2004	1997	2004	1997
I/M Stringency	20	20		20	20		
I/M Model Years							
<i>First Year</i>	1975	1981	1975	1996	1981	1996	1975
<i>Last Year</i>	1980	2050	2050	2050	1995	2050	1995
I/M Waiver Rates							
Pre-81 Model Years	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Post-81 Model Years	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
I/M Compliance	96.0%	96.0%	96.0%	96.0%	96.0%	96.0%	96.0%
Program Type: Test Only (T/O) Test & Repair computerized (TRC) Test & Repair Manual (TRM)	TRC	TRC	TRC	TRC	TRC	TRC	TRC
Inspection Frequency Annual Biennial	Annual	Annual	Annual	Annual	Annual	Annual	Annual
I/M Vehicles 1 = I/M Benefits not calculated 2 = I/M Benefits calculated							
LDGV	2	2	2	2	2	2	2
LDGT1	2	2	2	2	2	2	2
LDGT2	2	2	2	2	2	2	2
LDGT3	2	2	2	2	2	2	2
LDGT4	2	2	2	2	2	2	2
HDGV2B	1	1	1	1	1	1	1
HDGV3	1	1	1	1	1	1	1
HDGV4	1	1	1	1	1	1	1
HDGV5	1	1	1	1	1	1	1
HDGV6	1	1	1	1	1	1	1
HDGV7	1	1	1	1	1	1	1
HDGV8A	1	1	1	1	1	1	1
HDGV8B	1	1	1	1	1	1	1
GAS BUS	1	1	1	1	1	1	1
I/M Effectiveness I/M TTC Credits New Model Year Exemption I/M Exemptions (<5000 mi)	1.00 Included First Model Year <5000 mi			1.00 Included First Model Year Not Modeled			

\*Allegheny, Beaver, Washington, Westmoreland Counties

**Table E-3-3: Anti-Tampering Program Input Parameters**

<b>ATP Parameters</b>	<b>Pittsburgh* (2002 and above)</b>	<b>NO-IM Counties** (2004 and above)</b>
Program Start Year	97	04
I/M Model Years		
First Year	75	75
Last Year	50	50
I/M Vehicles 1 = I/M Benefits not calculated 2 = I/M Benefits calculated		
LDGV	2	2
LDGT1	2	2
LDGT2	2	2
LDGT3	2	2
LDGT4	2	2
HDGV2B	1	1
HDGV3	1	1
HDGV4	1	1
HDGV5	1	1
HDGV6	1	1
HDGV7	1	1
HDGV8A	1	1
HDGV8B	1	1
GAS BUS	1	1
Inspection Frequency: Annual Biennial	Annual	Annual
I/M Compliance	96.0%	96.0%
Inspections Performed: 1 = Not Performed 2 = Performed		
Air Pump System	2	2
Catalyst Removal	2	2
Fuel Inlet Restrictor	2	2
Tailpipe Lead Deposit Test	1	1
EGR System	2	2
Evaporative Control System	2	2
PCV System	2	2
Gas Cap	2	2

\* Allegheny, Beaver, Washington, Westmoreland Counties

\*\* Armstrong, Butler, Greene, Lawrence Counties



**APPENDIX E-4**

**MOBILE6.2 Sample Input File**

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## **APPENDIX E-4**

### **MOBILE6.2 Sample Input Files**

# Annual MOBILE6.2 Input Settings

## Allegheny County, 2002

### MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_ALLE02.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0021

MIN/MAX TEMPERATURE: 28.1 42.8 (*Temperatures vary by month*)  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)  
EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : ALLE02ag.dat (*2002 Age Data*)  
I/M PROGRAM : 1 1984 2050 1 TRC IDLE  
I/M PROGRAM : 2 1997 2050 1 TRC 2500/IDLE  
I/M PROGRAM : 3 1997 2050 1 TRC GC  
I/M MODEL YEARS : 1 1975 1980  
I/M MODEL YEARS : 2 1981 2050  
I/M MODEL YEARS : 3 1975 2050  
I/M VEHICLES : 1 22222 11111111 1  
I/M VEHICLES : 2 22222 11111111 1  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 1 20  
I/M STRINGENCY : 2 20  
I/M COMPLIANCE : 1 96.0  
I/M COMPLIANCE : 2 96.0  
I/M COMPLIANCE : 3 96.0  
I/M WAIVER RATES : 1 3.0 3.0  
I/M WAIVER RATES : 2 3.0 3.0  
I/M WAIVER RATES : 3 3.0 3.0  
I/M EFFECTIVENES : 1.00 1.00 1.00  
ANTI-TAMP PROGRAM : 97 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD :[02 0021] 2

CALENDAR YEAR :2002  
EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)  
ABSOLUTE HUMIDITY : 20.8 (*Humidity varies by month*)  
SEASON : 2 (*Season setting varies by month*)  
VMT FRACTIONS :  
0.473594 0.071999 0.239452 0.073790 0.033979 0.032671 0.003250 0.002566  
0.001883 0.007182 0.008549 0.009315 0.033354 0.001625 0.000767 0.006024

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY :V002102F.def

VMT BY HOUR :V002102H.def  
SPEED VMT :V002102S.def  
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV  
PARTICLE SIZE : 2.5  
DIESEL SULFUR : 317  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## **Armstrong County, 2002**

### MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_ARMS02.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0031

MIN/MAX TEMPERATURE: 28.1 42.8 *(Temperatures vary by month)*  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 *(RVP varies by month)*  
EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : ARMS02ag.dat *(2002 Age Data)*

SCENARIO RECORD :[02 0031] 2

CALENDAR YEAR :2002  
EVALUATION MONTH : 1 *(1 - January ~ June; 7 - July ~ December)*  
ABSOLUTE HUMIDITY : 20.8 *(Humidity varies by month)*  
SEASON : 2 *(Season setting varies by month)*  
VMT FRACTIONS :  
0.473833 0.072039 0.239563 0.073838 0.033993 0.032516 0.003238 0.002557  
0.001875 0.007158 0.008503 0.009280 0.033198 0.001629 0.000758 0.006022

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY :V003102F.def  
VMT BY HOUR :V003102H.def  
SPEED VMT :V003102S.def  
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV  
PARTICLE SIZE : 2.5  
DIESEL SULFUR : 317  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Beaver County, 2002

### MOBILE6 INPUT FILE

```
REPORT FILE      : m6output.out      REPLACE
DATABASE OUTPUT :
WITH FIELDNAMES :
EMISSIONS TABLE : M6OUTPUT_BEAV02.TB1 REPLACE
POLLUTANTS      : HC CO NOX CO2
PARTICULATES    : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3
AGGREGATED OUTPUT :
RUN DATA       : 0041

MIN/MAX TEMPERATURE: 28.1 42.8 (Temperatures vary by month)
94+ LDG IMP       : NLEVNE.D
FUEL RVP         : 13.47 (RVP varies by month)
EXPRESS HC AS VOC :
EXPAND EXHAUST   :
EXPAND EVAPORATIVE :
NO REFUELING     :
REG DISTRIBUTION : BEAV02ag.dat (2002 Age Data)
I/M PROGRAM      : 1 1984 2050 1 TRC IDLE
I/M PROGRAM      : 2 1997 2050 1 TRC 2500/IDLE
I/M PROGRAM      : 3 1997 2050 1 TRC GC
I/M MODEL YEARS  : 1 1975 1980
I/M MODEL YEARS  : 2 1981 2050
I/M MODEL YEARS  : 3 1975 2050
I/M VEHICLES     : 1 22222 11111111 1
I/M VEHICLES     : 2 22222 11111111 1
I/M VEHICLES     : 3 22222 11111111 1
I/M STRINGENCY   : 1 20
I/M STRINGENCY   : 2 20
I/M COMPLIANCE   : 1 96.0
I/M COMPLIANCE   : 2 96.0
I/M COMPLIANCE   : 3 96.0
I/M WAIVER RATES : 1 3.0 3.0
I/M WAIVER RATES : 2 3.0 3.0
I/M WAIVER RATES : 3 3.0 3.0
I/M EFFECTIVENES : 1.00 1.00 1.00
ANTI-TAMP PROGRAM : 97 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD  : [01 0041] 1

CALENDAR YEAR    : 2002
EVALUATION MONTH : 1 (1 - January ~ June; 7 - July ~ December)
ABSOLUTE HUMIDITY : 20.8 (Humidity varies by month)
SEASON          : 2 (Season setting varies by month)
VMT FRACTIONS   :
0.405737 0.061683 0.205140 0.063223 0.029109 0.074254 0.007384 0.005838
0.004275 0.016325 0.019428 0.021181 0.075817 0.003701 0.001747 0.005158

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY FACILITY  : V004101F.def
VMT BY HOUR      : V004101H.def
SPEED VMT       : V004101S.def
PARTICULATE EF   : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
```

PARTICLE SIZE : 2.5  
DIESEL SULFUR : 317  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Butler County, 2002

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_BUTL02.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0101

MIN/MAX TEMPERATURE: 28.1 42.8 (*Temperatures vary by month*)  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)  
EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : BUTL02ag.dat (*2002 Age Data*)

SCENARIO RECORD : [01 0101] 1

CALENDAR YEAR : 2002  
EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)  
ABSOLUTE HUMIDITY : 20.8 (*Humidity varies by month*)  
SEASON : 2 (*Season setting varies by month*)  
VMT FRACTIONS :  
0.430816 0.065493 0.217820 0.067128 0.030907 0.058884 0.005853 0.004631  
0.003392 0.012948 0.015409 0.016795 0.060124 0.002936 0.001385 0.005479

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V010101F.def  
VMT BY HOUR : V010101H.def  
SPEED VMT : V010101S.def  
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV  
PARTICLE SIZE : 2.5  
DIESEL SULFUR : 317  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Greene County, 2002

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE

DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_GREE02.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0301

MIN/MAX TEMPERATURE: 28.1 42.8 (*Temperatures vary by month*)  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)  
EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : GREE02ag.dat (*2002 Age Data*)

SCENARIO RECORD : [02 0301] 2

CALENDAR YEAR : 2002  
EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)  
ABSOLUTE HUMIDITY : 20.8 (*Humidity varies by month*)  
SEASON : 2 (*Season setting varies by month*)  
VMT FRACTIONS :  
0.495643 0.075308 0.250579 0.077244 0.035593 0.019185 0.001935 0.001515  
0.001094 0.004207 0.005049 0.005469 0.019521 0.000926 0.000421 0.006311

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V030102F.def  
VMT BY HOUR : V030102H.def  
SPEED VMT : V030102S.def  
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV  
PARTICLE SIZE : 2.5  
DIESEL SULFUR : 317  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Lawrence County, 2002

### MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_LAWR02.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0371

MIN/MAX TEMPERATURE: 28.1 42.8 (*Temperatures vary by month*)  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)



EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : LAWR02ag.dat (2002 Age Data)

SCENARIO RECORD : [07 0371] 7

CALENDAR YEAR : 2002  
EVALUATION MONTH : 1 (1 - January ~ June; 7 - July ~ December)  
ABSOLUTE HUMIDITY : 20.8 (Humidity varies by month)  
SEASON : 2 (Season setting varies by month)  
VMT FRACTIONS :  
0.477237 0.072571 0.241301 0.074375 0.034214 0.030405 0.003007 0.002406  
0.001737 0.006682 0.007952 0.008687 0.031073 0.001537 0.000735 0.006081

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V037107F.def  
VMT BY HOUR : V037107H.def  
SPEED VMT : V037107S.def  
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV  
PARTICLE SIZE : 2.5  
DIESEL SULFUR : 317  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Washington County, 2002

### MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_WASH02.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0621

MIN/MAX TEMPERATURE: 28.1 42.8 (Temperatures vary by month)  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (RVP varies by month)  
EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : WASH02ag.dat (2002 Age Data)  
I/M PROGRAM : 1 1984 2050 1 TRC IDLE  
I/M PROGRAM : 2 1997 2050 1 TRC 2500/IDLE  
I/M PROGRAM : 3 1997 2050 1 TRC GC  
I/M MODEL YEARS : 1 1975 1980  
I/M MODEL YEARS : 2 1981 2050  
I/M MODEL YEARS : 3 1975 2050

I/M VEHICLES : 1 22222 11111111 1  
 I/M VEHICLES : 2 22222 11111111 1  
 I/M VEHICLES : 3 22222 11111111 1  
 I/M STRINGENCY : 1 20  
 I/M STRINGENCY : 2 20  
 I/M COMPLIANCE : 1 96.0  
 I/M COMPLIANCE : 2 96.0  
 I/M COMPLIANCE : 3 96.0  
 I/M WAIVER RATES : 1 3.0 3.0  
 I/M WAIVER RATES : 2 3.0 3.0  
 I/M WAIVER RATES : 3 3.0 3.0  
 I/M EFFECTIVENES : 1.00 1.00 1.00  
 ANTI-TAMP PROGRAM : 97 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD : [01 0621] 1

CALENDAR YEAR : 2002  
 EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)  
 ABSOLUTE HUMIDITY : 20.8 (*Humidity varies by month*)  
 SEASON : 2 (*Season setting varies by month*)  
 VMT FRACTIONS :  
 0.416122 0.063258 0.210388 0.064838 0.029852 0.067890 0.006749 0.005341  
 0.003911 0.014928 0.017766 0.019364 0.069320 0.003384 0.001598 0.005291

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V062101F.def  
 VMT BY HOUR : V062101H.def  
 SPEED VMT : V062101S.def  
 PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
 PMDDR2.CSV  
 PARTICLE SIZE : 2.5  
 DIESEL SULFUR : 317  
 END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

## Westmoreland County, 2002

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
 DATABASE OUTPUT :  
 WITH FIELDNAMES :  
 EMISSIONS TABLE : M6OUTPUT\_WEST02.TB1 REPLACE  
 POLLUTANTS : HC CO NOX CO2  
 PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
 AGGREGATED OUTPUT :  
 RUN DATA : 0641

MIN/MAX TEMPERATURE: 28.1 42.8 (*Temperatures vary by month*)  
 94+ LDG IMP : NLEVNE.D  
 FUEL RVP : 13.47 (*RVP varies by month*)  
 EXPRESS HC AS VOC :  
 EXPAND EXHAUST :  
 EXPAND EVAPORATIVE :

```

NO REFUELING          :
REG DISTRIBUTION      : WEST02ag.dat  (2002 Age Data)
I/M PROGRAM          : 1 1984 2050 1 TRC IDLE
I/M PROGRAM          : 2 1997 2050 1 TRC 2500/IDLE
I/M PROGRAM          : 3 1997 2050 1 TRC GC
I/M MODEL YEARS      : 1 1975 1980
I/M MODEL YEARS      : 2 1981 2050
I/M MODEL YEARS      : 3 1975 2050
I/M VEHICLES         : 1 22222 11111111 1
I/M VEHICLES         : 2 22222 11111111 1
I/M VEHICLES         : 3 22222 11111111 1
I/M STRINGENCY       : 1 20
I/M STRINGENCY       : 2 20
I/M COMPLIANCE       : 1 96.0
I/M COMPLIANCE       : 2 96.0
I/M COMPLIANCE       : 3 96.0
I/M WAIVER RATES     : 1 3.0 3.0
I/M WAIVER RATES     : 2 3.0 3.0
I/M WAIVER RATES     : 3 3.0 3.0
I/M EFFECTIVENES     : 1.00 1.00 1.00
ANTI-TAMP PROGRAM    : 97 75 50 22222 11111111 1 11 096. 22212222

```

```

SCENARIO RECORD      : [01 0641] 1

```

```

CALENDAR YEAR        : 2002
EVALUATION MONTH     : 1 (1 - January ~ June; 7 - July ~ December)
ABSOLUTE HUMIDITY    : 20.8 (Humidity varies by month)
SEASON               : 2 (Season setting varies by month)
VMT FRACTIONS        :
0.376021 0.057164 0.190118 0.058591 0.026976 0.092461 0.009192 0.007274
0.005325 0.020331 0.024196 0.026373 0.094409 0.004610 0.002177 0.004782

```

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

```

VMT BY FACILITY      : V064101F.def
VMT BY HOUR          : V064101H.def
SPEED VMT            : V064101S.def
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE        : 2.5
DIESEL SULFUR        : 317
END OF RUN           :

```

*(Scenarios Repeated for each Area, Functional Class Combination)*

## Allegheny County, 2009

MOBILE6 INPUT FILE

```

REPORT FILE          : m6output.out          REPLACE
DATABASE OUTPUT      :
WITH FIELDNAMES      :
EMISSIONS TABLE     : M6OUTPUT_ALLE09.TB1  REPLACE
POLLUTANTS           : HC CO NOX CO2
PARTICULATES         : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3

```

```

AGGREGATED OUTPUT :
RUN DATA : 0021

MIN/MAX TEMPERATURE: 22.1 37.3 (Temperatures vary by month)
T2 EXH PHASE-IN : pal2exh.08
T2 EVAP PHASE-IN : pal2evp.08 } CALLEVII Phase-In Files
T2 CERT : leviistd.d
94+ LDG IMP : NLEVNE.D
FUEL RVP : 13.47 (RVP varies by month)
EXPRESS HC AS VOC :
EXPAND EXHAUST :
EXPAND EVAPORATIVE :
NO REFUELING :
REG DISTRIBUTION : ALLE05ag.dat (2005 Age Data)
I/M PROGRAM : 1 2004 2050 1 TRC OBD I/M
I/M PROGRAM : 2 1997 2050 1 TRC 2500/IDLE
I/M PROGRAM : 3 2004 2050 1 TRC EVAP OBD & GC
I/M PROGRAM : 4 1997 2050 1 TRC GC
I/M MODEL YEARS : 1 1996 2050
I/M MODEL YEARS : 2 1981 1995
I/M MODEL YEARS : 3 1996 2050
I/M MODEL YEARS : 4 1975 1995
I/M VEHICLES : 1 22222 11111111 1
I/M VEHICLES : 2 22222 11111111 1
I/M VEHICLES : 3 22222 11111111 1
I/M VEHICLES : 4 22222 11111111 1
I/M STRINGENCY : 1 20
I/M STRINGENCY : 2 20
I/M COMPLIANCE : 1 96.0
I/M COMPLIANCE : 2 96.0
I/M COMPLIANCE : 3 96.0
I/M COMPLIANCE : 4 96.0
I/M WAIVER RATES : 1 3.0 3.0
I/M WAIVER RATES : 2 3.0 3.0
I/M WAIVER RATES : 3 3.0 3.0
I/M WAIVER RATES : 4 3.0 3.0
I/M EFFECTIVENES : 1.00 1.00 1.00
ANTI-TAMP PROGRAM : 97 75 50 22222 11111111 1 11 096. 22212222

```

```

SCENARIO RECORD :[02 0021] 2

```

```

CALENDAR YEAR :2009
EVALUATION MONTH : 1 (1 - January ~ June; 7 - July ~ December)
ABSOLUTE HUMIDITY : 20.0 (Humidity varies by month)
SEASON : 2 (Season setting varies by month)
VMT FRACTIONS :
0.376174 0.089106 0.296696 0.091450 0.042075 0.031757 0.003096 0.002612
0.001963 0.007100 0.008406 0.009141 0.032484 0.001635 0.000813 0.005492

```

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

```

VMT BY FACILITY :V002102F.def
VMT BY HOUR :V002102H.def
SPEED VMT :V002102S.def
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE : 2.5
DIESEL SULFUR : 43

```

END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Armstrong County, 2009

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_ARMS09.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0031

MIN/MAX TEMPERATURE: 22.1 37.3 (*Temperatures vary by month*)

T2 EXH PHASE-IN : pal2exh.08  
T2 EVAP PHASE-IN : pal2evp.08 } *CALLEVII Phase-In Files*  
T2 CERT : leviistd.d

94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)

EXPRESS HC AS VOC :

EXPAND EXHAUST :

EXPAND EVAPORATIVE :

NO REFUELING :

REG DISTRIBUTION : ARMS05ag.dat (*2005 Age Data*)

ANTI-TAMP PROGRAM : 04 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD : [02 0031] 2

CALENDAR YEAR : 2009

EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)

ABSOLUTE HUMIDITY : 20.0 (*Humidity varies by month*)

SEASON : 2 (*Season setting varies by month*)

VMT FRACTIONS :

0.367664 0.087090 0.289989 0.089378 0.041121 0.038301 0.003741 0.003151  
0.002360 0.008561 0.010129 0.011021 0.039178 0.001971 0.000978 0.005367

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V003102F.def

VMT BY HOUR : V003102H.def

SPEED VMT : V003102S.def

PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV

PARTICLE SIZE : 2.5

DIESEL SULFUR : 43

END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Beaver County, 2009

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
 DATABASE OUTPUT :  
 WITH FIELDNAMES :  
 EMISSIONS TABLE : M6OUTPUT\_BEAV09.TB1 REPLACE  
 POLLUTANTS : HC CO NOX CO2  
 PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
 AGGREGATED OUTPUT :  
 RUN DATA : 0041

MIN/MAX TEMPERATURE: 22.1 37.3 (*Temperatures vary by month*)

T2 EXH PHASE-IN : pal2exh.08 }  
 T2 EVAP PHASE-IN : pal2evp.08 } *CALLEVII Phase-In Files*  
 T2 CERT : leviistd.d }

94+ LDG IMP : NLEVNE.D  
 FUEL RVP : 13.47 (*RVP varies by month*)

EXPRESS HC AS VOC :  
 EXPAND EXHAUST :  
 EXPAND EVAPORATIVE :  
 NO REFUELING :

REG DISTRIBUTION : BEAV05ag.dat (*2005 Age Data*)

I/M PROGRAM : 1 2004 2050 1 TRC OBD I/M  
 I/M PROGRAM : 2 1997 2050 1 TRC 2500/IDLE  
 I/M PROGRAM : 3 2004 2050 1 TRC EVAP OBD & GC  
 I/M PROGRAM : 4 1997 2050 1 TRC GC

I/M MODEL YEARS : 1 1996 2050  
 I/M MODEL YEARS : 2 1981 1995  
 I/M MODEL YEARS : 3 1996 2050  
 I/M MODEL YEARS : 4 1975 1995  
 I/M VEHICLES : 1 22222 11111111 1  
 I/M VEHICLES : 2 22222 11111111 1  
 I/M VEHICLES : 3 22222 11111111 1  
 I/M VEHICLES : 4 22222 11111111 1

I/M STRINGENCY : 1 20  
 I/M STRINGENCY : 2 20  
 I/M COMPLIANCE : 1 96.0  
 I/M COMPLIANCE : 2 96.0  
 I/M COMPLIANCE : 3 96.0  
 I/M COMPLIANCE : 4 96.0

I/M WAIVER RATES : 1 3.0 3.0  
 I/M WAIVER RATES : 2 3.0 3.0  
 I/M WAIVER RATES : 3 3.0 3.0  
 I/M WAIVER RATES : 4 3.0 3.0  
 I/M EFFECTIVENES : 1.00 1.00 1.00

ANTI-TAMP PROGRAM : 97 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD : [01 0041] 1

CALENDAR YEAR : 2009  
 EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)  
 ABSOLUTE HUMIDITY : 20.0 (*Humidity varies by month*)  
 SEASON : 2 (*Season setting varies by month*)

VMT FRACTIONS :  
 0.313149 0.074178 0.246991 0.076128 0.035027 0.080187 0.007822 0.006598  
 0.004947 0.017920 0.021221 0.023070 0.082010 0.004124 0.002052 0.004576

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

```

VMT BY FACILITY      :V004101F.def
VMT BY HOUR          :V004101H.def
SPEED VMT            :V004101S.def
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE        : 2.5
DIESEL SULFUR        : 43
END OF RUN           :

```

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Butler County, 2009

### MOBILE6 INPUT FILE

```

REPORT FILE          : m6output.out          REPLACE
DATABASE OUTPUT      :
WITH FIELDNAMES      :
EMISSIONS TABLE     : M6OUTPUT_BUTL09.TB1  REPLACE
POLLUTANTS           : HC CO NOX CO2
PARTICULATES         : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3
AGGREGATED OUTPUT    :
RUN DATA            : 0101

```

```

MIN/MAX TEMPERATURE: 22.1 37.3 (Temperatures vary by month)
T2 EXH PHASE-IN     : pal2exh.08
T2 EVAP PHASE-IN    : pal2evp.08
T2 CERT              : leviistd.d
94+ LDG IMP         : NLEVNE.D
FUEL RVP             : 13.47 (RVP varies by month)
EXPRESS HC AS VOC   :
EXPAND EXHAUST      :
EXPAND EVAPORATIVE  :
NO REFUELING        :
REG DISTRIBUTION    : BUTL05ag.dat (2005 Age Data)
ANTI-TAMP PROGRAM   : 04 75 50 22222 11111111 1 11 096. 22212222

```

*CALLEVII Phase-In Files*

```

SCENARIO RECORD     :[01 0101] 1

```

```

CALENDAR YEAR       :2009
EVALUATION MONTH    : 1 (1 - January ~ June; 7 - July ~ December)
ABSOLUTE HUMIDITY   : 20.0 (Humidity varies by month)
SEASON              : 2 (Season setting varies by month)
VMT FRACTIONS       :
0.338856 0.080269 0.267267 0.082380 0.037903 0.060430 0.005897 0.004973
0.003730 0.013505 0.015993 0.017386 0.061806 0.003109 0.001544 0.004952

```

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

```

VMT BY FACILITY      :V010101F.def
VMT BY HOUR          :V010101H.def
SPEED VMT            :V010101S.def
PARTICULATE EF       : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE        : 2.5

```

DIESEL SULFUR : 43  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Greene County, 2009

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_GREE09.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0301

MIN/MAX TEMPERATURE: 22.1 37.3 (*Temperatures vary by month*)

T2 EXH PHASE-IN : pal2exh.08  
T2 EVAP PHASE-IN : pal2evp.08 } *CALLEVII Phase-In Files*  
T2 CERT : leviistd.d }

94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)

EXPRESS HC AS VOC :

EXPAND EXHAUST :

EXPAND EVAPORATIVE :

NO REFUELING :

REG DISTRIBUTION : GREE05ag.dat (*2005 Age Data*)

ANTI-TAMP PROGRAM : 04 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD : [02 0301] 2

CALENDAR YEAR : 2009

EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)

ABSOLUTE HUMIDITY : 20.0 (*Humidity varies by month*)

SEASON : 2 (*Season setting varies by month*)

VMT FRACTIONS :

0.394533 0.093435 0.311044 0.095864 0.044099 0.017761 0.001746 0.001442  
0.001063 0.003947 0.004706 0.005085 0.018140 0.000911 0.000455 0.005769

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V030102F.def

VMT BY HOUR : V030102H.def

SPEED VMT : V030102S.def

PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV

PARTICLE SIZE : 2.5

DIESEL SULFUR : 43

END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Lawrence County, 2009



MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_LAWR09.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0371

MIN/MAX TEMPERATURE: 22.1 37.3 (*Temperatures vary by month*)

T2 EXH PHASE-IN : pal2exh.08  
T2 EVAP PHASE-IN : pal2evp.08 } *CALLEVII Phase-In Files*  
T2 CERT : leviistd.d

94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 (*RVP varies by month*)

EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :

REG DISTRIBUTION : LAWR05ag.dat (*2005 Age Data*)  
ANTI-TAMP PROGRAM : 04 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD : [07 0371] 7

CALENDAR YEAR : 2009  
EVALUATION MONTH : 1 (*1 - January ~ June; 7 - July ~ December*)  
ABSOLUTE HUMIDITY : 20.0 (*Humidity varies by month*)  
SEASON : 2 (*Season setting varies by month*)  
VMT FRACTIONS :  
0.367239 0.087074 0.289702 0.089366 0.040918 0.038627 0.003928 0.003273  
0.002291 0.008511 0.010148 0.011130 0.039609 0.001964 0.000982 0.005238

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V037107F.def  
VMT BY HOUR : V037107H.def  
SPEED VMT : V037107S.def  
PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
PMDDR2.CSV  
PARTICLE SIZE : 2.5  
DIESEL SULFUR : 43  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Washington County, 2009

MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_WASH09.TB1 REPLACE

```

POLLUTANTS          : HC CO NOX CO2
PARTICULATES       : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3
AGGREGATED OUTPUT  :
RUN DATA          : 0621

MIN/MAX TEMPERATURE: 22.1 37.3 (Temperatures vary by month)
T2 EXH PHASE-IN    : pal2exh.08
T2 EVAP PHASE-IN   : pal2evp.08 } CALLEVII Phase-In Files
T2 CERT            : leviistd.d
94+ LDG IMP        : NLEVNE.D
FUEL RVP           : 13.47 (RVP varies by month)
EXPRESS HC AS VOC  :
EXPAND EXHAUST     :
EXPAND EVAPORATIVE:
NO REFUELING       :
REG DISTRIBUTION   : WASH05ag.dat (2005 Age Data)
I/M PROGRAM        : 1 2004 2050 1 TRC OBD I/M
I/M PROGRAM        : 2 1997 2050 1 TRC 2500/IDLE
I/M PROGRAM        : 3 2004 2050 1 TRC EVAP OBD & GC
I/M PROGRAM        : 4 1997 2050 1 TRC GC
I/M MODEL YEARS    : 1 1996 2050
I/M MODEL YEARS    : 2 1981 1995
I/M MODEL YEARS    : 3 1996 2050
I/M MODEL YEARS    : 4 1975 1995
I/M VEHICLES       : 1 22222 11111111 1
I/M VEHICLES       : 2 22222 11111111 1
I/M VEHICLES       : 3 22222 11111111 1
I/M VEHICLES       : 4 22222 11111111 1
I/M STRINGENCY     : 1 20
I/M STRINGENCY     : 2 20
I/M COMPLIANCE     : 1 96.0
I/M COMPLIANCE     : 2 96.0
I/M COMPLIANCE     : 3 96.0
I/M COMPLIANCE     : 4 96.0
I/M WAIVER RATES   : 1 3.0 3.0
I/M WAIVER RATES   : 2 3.0 3.0
I/M WAIVER RATES   : 3 3.0 3.0
I/M WAIVER RATES   : 4 3.0 3.0
I/M EFFECTIVENES   : 1.00 1.00 1.00
ANTI-TAMP PROGRAM  : 97 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD    : [01 0621] 1

CALENDAR YEAR      : 2009
EVALUATION MONTH   : 1 (1 - January ~ June; 7 - July ~ December)
ABSOLUTE HUMIDITY  : 20.0 (Humidity varies by month)
SEASON             : 2 (Season setting varies by month)
VMT FRACTIONS      :
0.337065 0.079845 0.265858 0.081945 0.037703 0.061806 0.006030 0.005086
0.003815 0.013813 0.016357 0.017782 0.063212 0.003179 0.001579 0.004925

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY FACILITY    : V062101F.def
VMT BY HOUR        : V062101H.def
SPEED VMT          : V062101S.def
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV

```

PARTICLE SIZE : 2.5  
DIESEL SULFUR : 43  
END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

---

## Westmoreland County, 2009

### MOBILE6 INPUT FILE

REPORT FILE : m6output.out REPLACE  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : M6OUTPUT\_WEST09.TB1 REPLACE  
POLLUTANTS : HC CO NOX CO2  
PARTICULATES : SO4 OCARBON ECARBON GASPM LEAD BRAKE TIRE SO2 NH3  
AGGREGATED OUTPUT :  
RUN DATA : 0641

MIN/MAX TEMPERATURE: 22.1 37.3 *(Temperatures vary by month)*

T2 EXH PHASE-IN : pal2exh.08  
T2 EVAP PHASE-IN : pal2evp.08  
T2 CERT : leviistd.d  
94+ LDG IMP : NLEVNE.D  
FUEL RVP : 13.47 *(RVP varies by month)*

} *CALLEVII Phase-In Files*

EXPRESS HC AS VOC :  
EXPAND EXHAUST :  
EXPAND EVAPORATIVE :  
NO REFUELING :  
REG DISTRIBUTION : WEST05ag.dat *(2005 Age Data)*  
I/M PROGRAM : 1 2004 2050 1 TRC OBD I/M  
I/M PROGRAM : 2 1997 2050 1 TRC 2500/IDLE  
I/M PROGRAM : 3 2004 2050 1 TRC EVAP OBD & GC  
I/M PROGRAM : 4 1997 2050 1 TRC GC  
I/M MODEL YEARS : 1 1996 2050  
I/M MODEL YEARS : 2 1981 1995  
I/M MODEL YEARS : 3 1996 2050  
I/M MODEL YEARS : 4 1975 1995  
I/M VEHICLES : 1 22222 11111111 1  
I/M VEHICLES : 2 22222 11111111 1  
I/M VEHICLES : 3 22222 11111111 1  
I/M VEHICLES : 4 22222 11111111 1  
I/M STRINGENCY : 1 20  
I/M STRINGENCY : 2 20  
I/M COMPLIANCE : 1 96.0  
I/M COMPLIANCE : 2 96.0  
I/M COMPLIANCE : 3 96.0  
I/M COMPLIANCE : 4 96.0  
I/M WAIVER RATES : 1 3.0 3.0  
I/M WAIVER RATES : 2 3.0 3.0  
I/M WAIVER RATES : 3 3.0 3.0  
I/M WAIVER RATES : 4 3.0 3.0  
I/M EFFECTIVENES : 1.00 1.00 1.00  
ANTI-TAMP PROGRAM : 97 75 50 22222 11111111 1 11 096. 22212222

SCENARIO RECORD :[01 0641] 1

CALENDAR YEAR : 2009  
 EVALUATION MONTH : 1 (1 - January ~ June; 7 - July ~ December)  
 ABSOLUTE HUMIDITY : 20.0 (Humidity varies by month)  
 SEASON : 2 (Season setting varies by month)  
 VMT FRACTIONS :  
 0.286023 0.067756 0.225600 0.069536 0.031993 0.101024 0.009857 0.008314  
 0.006236 0.022580 0.026736 0.029067 0.103322 0.005196 0.002582 0.004178

*(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)*

VMT BY FACILITY : V064101F.def  
 VMT BY HOUR : V064101H.def  
 SPEED VMT : V064101S.def  
 PARTICULATE EF : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV  
 PMDDR2.CSV  
 PARTICLE SIZE : 2.5  
 DIESEL SULFUR : 43  
 END OF RUN :

*(Scenarios Repeated for each Area, Functional Class Combination)*

**Table 1: Weather Data for 2002 and 2009**

Month	2002			2009		
	Maximum Temp	Minimum Temp	Humidity	Maximum Temp	Minimum Temp	Humidity
January	42.8	28.1	20.771	37.3	22.1	19.967
February	44.6	25.3	18.116	40.3	24.5	19.944
March	51.0	30.8	24.722	43.5	27.0	21.941
April	63.2	42.2	40.671	63.6	40.9	32.295
May	68.3	45.1	48.569	67.1	45.4	41.871
June	81.1	60.1	72.679	82.3	61.1	79.651
July	86.8	65.2	79.463	84.8	65.4	88.323
August	85.2	62.9	73.197	83.0	64.3	83.969
September	78.9	55.8	65.710	78.2	56.3	62.590
October	58.7	43.3	44.562	61.8	45.0	44.913
November	46.7	33.8	28.860	53.7	34.2	27.184
December	36.8	24.5	19.911	33.6	21.6	17.075

**Table 2: Evaluation Month Relationship with Analysis Season**

Month	Evaluation Month	Season (RFG Areas Only)	Calendar Year	RVP (Greene/Lawrence)	RVP (Rest of the Counties)
January	1	2	Current Year	13.47	13.47
February	1	2	Current Year	13.47	13.47
March	1	2	Current Year	11.04	10.95
April	1	2	Current Year	11.04	10.95
May	1	1	Current Year	8.7	7.8
June	1	1	Current Year	8.7	7.8
July	7	1	Current Year	8.7	7.8
August	7	1	Current Year	8.7	7.8
September	7	1	Current Year	8.7	7.8
October	7	2	Current Year + 1	11.04	10.95
November	7	2	Current Year + 1	11.04	10.95
December	7	2	Current Year + 1	13.47	13.47

## Allegheny County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0581	0.0900	0.0984	0.0897	0.0821	0.0765	0.0675	0.0689	0.0614	0.0537
	0.0450	0.0420	0.0361	0.0329	0.0251	0.0191	0.0148	0.0108	0.0076	0.0039
	0.0024	0.0020	0.0018	0.0024	0.0078					
2	0.0336	0.0612	0.0790	0.0707	0.0702	0.0571	0.0434	0.0530	0.0721	0.0598
	0.0517	0.0563	0.0435	0.0480	0.0474	0.0335	0.0293	0.0208	0.0155	0.0085
	0.0083	0.0061	0.0037	0.0069	0.0201					
3	0.0336	0.0612	0.0790	0.0707	0.0702	0.0571	0.0434	0.0530	0.0721	0.0598
	0.0517	0.0563	0.0435	0.0480	0.0474	0.0335	0.0293	0.0208	0.0155	0.0085
	0.0083	0.0061	0.0037	0.0069	0.0201					
4	0.0591	0.1023	0.0978	0.0899	0.0683	0.0830	0.0542	0.0711	0.0590	0.0385
	0.0334	0.0256	0.0314	0.0317	0.0246	0.0176	0.0213	0.0165	0.0115	0.0071
	0.0055	0.0044	0.0034	0.0123	0.0304					
5	0.0591	0.1023	0.0978	0.0899	0.0683	0.0830	0.0542	0.0711	0.0590	0.0385
	0.0334	0.0256	0.0314	0.0317	0.0246	0.0176	0.0213	0.0165	0.0115	0.0071
	0.0055	0.0044	0.0034	0.0123	0.0304					
16	0.0592	0.0956	0.0956	0.0776	0.0567	0.0474	0.0449	0.0371	0.0319	0.0285
	0.0224	0.0175	0.0172	0.0171	0.0160	0.0187	0.0332	0.0298	0.0227	0.0320
	0.0375	0.0297	0.0265	0.0175	0.0879					

(Truck Age Distributions Assume MOBILE6 National Defaults)

## Armstrong County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0394	0.0686	0.0763	0.0749	0.0696	0.0717	0.0677	0.0695	0.0626	0.0576
	0.0517	0.0509	0.0464	0.0437	0.0374	0.0279	0.0212	0.0171	0.0123	0.0063
	0.0041	0.0030	0.0026	0.0038	0.0137					
2	0.0245	0.0384	0.0490	0.0529	0.0548	0.0573	0.0455	0.0535	0.0682	0.0517
	0.0498	0.0614	0.0482	0.0625	0.0658	0.0443	0.0384	0.0304	0.0203	0.0165
	0.0110	0.0075	0.0053	0.0116	0.0313					
3	0.0245	0.0384	0.0490	0.0529	0.0548	0.0573	0.0455	0.0535	0.0682	0.0517
	0.0498	0.0614	0.0482	0.0625	0.0658	0.0443	0.0384	0.0304	0.0203	0.0165
	0.0110	0.0075	0.0053	0.0116	0.0313					
4	0.0470	0.0834	0.0797	0.0698	0.0523	0.0789	0.0503	0.0718	0.0567	0.0368
	0.0365	0.0247	0.0340	0.0353	0.0255	0.0236	0.0294	0.0255	0.0236	0.0135
	0.0109	0.0066	0.0063	0.0220	0.0560					
5	0.0470	0.0834	0.0797	0.0698	0.0523	0.0789	0.0503	0.0718	0.0567	0.0368
	0.0365	0.0247	0.0340	0.0353	0.0255	0.0236	0.0294	0.0255	0.0236	0.0135
	0.0109	0.0066	0.0063	0.0220	0.0560					
16	0.0579	0.0971	0.0780	0.0589	0.0447	0.0371	0.0393	0.0360	0.0262	0.0256
	0.0185	0.0207	0.0131	0.0229	0.0191	0.0213	0.0409	0.0420	0.0235	0.0311
	0.0458	0.0507	0.0327	0.0207	0.0960					

(Truck Age Distributions Assume MOBILE6 National Defaults)

## Beaver County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0438	0.0752	0.0837	0.0823	0.0775	0.0743	0.0697	0.0744	0.0664	0.0587
	0.0487	0.0470	0.0407	0.0386	0.0304	0.0223	0.0174	0.0129	0.0088	0.0048
	0.0029	0.0026	0.0022	0.0035	0.0114					
2	0.0289	0.0503	0.0602	0.0574	0.0655	0.0547	0.0452	0.0507	0.0707	0.0634
	0.0579	0.0602	0.0474	0.0564	0.0510	0.0366	0.0318	0.0255	0.0187	0.0091
	0.0084	0.0074	0.0050	0.0084	0.0294					
3	0.0289	0.0503	0.0602	0.0574	0.0655	0.0547	0.0452	0.0507	0.0707	0.0634

	0.0579	0.0602	0.0474	0.0564	0.0510	0.0366	0.0318	0.0255	0.0187	0.0091
	0.0084	0.0074	0.0050	0.0084	0.0294					
4	0.0497	0.0871	0.0790	0.0772	0.0637	0.0852	0.0596	0.0699	0.0625	0.0434
	0.0362	0.0252	0.0340	0.0325	0.0278	0.0189	0.0252	0.0177	0.0139	0.0083
	0.0064	0.0051	0.0057	0.0197	0.0460					
5	0.0497	0.0871	0.0790	0.0772	0.0637	0.0852	0.0596	0.0699	0.0625	0.0434
	0.0362	0.0252	0.0340	0.0325	0.0278	0.0189	0.0252	0.0177	0.0139	0.0083
	0.0064	0.0051	0.0057	0.0197	0.0460					
16	0.0614	0.1029	0.0791	0.0682	0.0521	0.0399	0.0376	0.0373	0.0272	0.0259
	0.0193	0.0185	0.0196	0.0206	0.0182	0.0180	0.0365	0.0309	0.0243	0.0336
	0.0370	0.0352	0.0296	0.0299	0.0971					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Butler County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0728	0.1192	0.1316	0.0796	0.0683	0.0665	0.0593	0.0621	0.0515	0.0468
	0.0407	0.0373	0.0321	0.0319	0.0244	0.0179	0.0134	0.0096	0.0080	0.0041
	0.0023	0.0019	0.0017	0.0029	0.0141					
2	0.0314	0.0676	0.0906	0.0586	0.0594	0.0523	0.0457	0.0556	0.0652	0.0508
	0.0473	0.0558	0.0456	0.0512	0.0498	0.0365	0.0289	0.0214	0.0196	0.0114
	0.0086	0.0064	0.0037	0.0082	0.0284					
3	0.0314	0.0676	0.0906	0.0586	0.0594	0.0523	0.0457	0.0556	0.0652	0.0508
	0.0473	0.0558	0.0456	0.0512	0.0498	0.0365	0.0289	0.0214	0.0196	0.0114
	0.0086	0.0064	0.0037	0.0082	0.0284					
4	0.0566	0.0877	0.0921	0.0723	0.0591	0.0793	0.0501	0.0674	0.0523	0.0387
	0.0343	0.0255	0.0331	0.0377	0.0286	0.0213	0.0278	0.0244	0.0176	0.0105
	0.0077	0.0047	0.0055	0.0187	0.0472					
5	0.0566	0.0877	0.0921	0.0723	0.0591	0.0793	0.0501	0.0674	0.0523	0.0387
	0.0343	0.0255	0.0331	0.0377	0.0286	0.0213	0.0278	0.0244	0.0176	0.0105
	0.0077	0.0047	0.0055	0.0187	0.0472					
16	0.0560	0.0969	0.0867	0.0670	0.0577	0.0538	0.0433	0.0337	0.0299	0.0286
	0.0191	0.0181	0.0183	0.0181	0.0197	0.0209	0.0347	0.0364	0.0232	0.0329
	0.0404	0.0313	0.0274	0.0191	0.0867					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Greene County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0441	0.0654	0.0792	0.0718	0.0664	0.0670	0.0623	0.0669	0.0611	0.0597
	0.0510	0.0552	0.0505	0.0452	0.0409	0.0304	0.0236	0.0174	0.0131	0.0056
	0.0042	0.0028	0.0028	0.0029	0.0106					
2	0.0258	0.0426	0.0648	0.0575	0.0547	0.0554	0.0496	0.0516	0.0660	0.0545
	0.0454	0.0516	0.0490	0.0533	0.0509	0.0447	0.0432	0.0294	0.0254	0.0130
	0.0128	0.0081	0.0058	0.0130	0.0320					
3	0.0258	0.0426	0.0648	0.0575	0.0547	0.0554	0.0496	0.0516	0.0660	0.0545
	0.0454	0.0516	0.0490	0.0533	0.0509	0.0447	0.0432	0.0294	0.0254	0.0130
	0.0128	0.0081	0.0058	0.0130	0.0320					
4	0.0607	0.0897	0.0839	0.0784	0.0574	0.0712	0.0481	0.0705	0.0399	0.0306
	0.0313	0.0296	0.0292	0.0423	0.0275	0.0261	0.0327	0.0248	0.0244	0.0138
	0.0076	0.0069	0.0062	0.0203	0.0471					
5	0.0607	0.0897	0.0839	0.0784	0.0574	0.0712	0.0481	0.0705	0.0399	0.0306
	0.0313	0.0296	0.0292	0.0423	0.0275	0.0261	0.0327	0.0248	0.0244	0.0138
	0.0076	0.0069	0.0062	0.0203	0.0471					
16	0.0719	0.0887	0.0767	0.0576	0.0480	0.0420	0.0372	0.0384	0.0240	0.0192
	0.0144	0.0120	0.0096	0.0156	0.0216	0.0264	0.0456	0.0396	0.0300	0.0324
	0.0504	0.0348	0.0264	0.0288	0.1091					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Lawrence County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0373	0.0618	0.0733	0.0783	0.0747	0.0709	0.0703	0.0714	0.0666	0.0583
	0.0544	0.0509	0.0461	0.0433	0.0362	0.0257	0.0200	0.0159	0.0110	0.0063
	0.0035	0.0034	0.0025	0.0042	0.0138					
2	0.0179	0.0345	0.0560	0.0527	0.0583	0.0483	0.0459	0.0559	0.0770	0.0562
	0.0518	0.0617	0.0518	0.0588	0.0572	0.0412	0.0397	0.0288	0.0227	0.0129
	0.0126	0.0083	0.0078	0.0108	0.0312					
3	0.0179	0.0345	0.0560	0.0527	0.0583	0.0483	0.0459	0.0559	0.0770	0.0562
	0.0518	0.0617	0.0518	0.0588	0.0572	0.0412	0.0397	0.0288	0.0227	0.0129
	0.0126	0.0083	0.0078	0.0108	0.0312					
4	0.0436	0.0762	0.0743	0.0704	0.0600	0.0863	0.0564	0.0724	0.0574	0.0439
	0.0390	0.0283	0.0309	0.0384	0.0329	0.0208	0.0275	0.0233	0.0159	0.0104
	0.0075	0.0060	0.0058	0.0184	0.0542					
5	0.0436	0.0762	0.0743	0.0704	0.0600	0.0863	0.0564	0.0724	0.0574	0.0439
	0.0390	0.0283	0.0309	0.0384	0.0329	0.0208	0.0275	0.0233	0.0159	0.0104
	0.0075	0.0060	0.0058	0.0184	0.0542					
16	0.0548	0.1041	0.0878	0.0699	0.0427	0.0427	0.0396	0.0342	0.0330	0.0256
	0.0210	0.0117	0.0159	0.0186	0.0132	0.0163	0.0385	0.0357	0.0245	0.0369
	0.0451	0.0322	0.0268	0.0229	0.1061					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Washington County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0488	0.0752	0.0876	0.0853	0.0809	0.0746	0.0686	0.0699	0.0625	0.0555
	0.0469	0.0456	0.0422	0.0383	0.0312	0.0220	0.0175	0.0124	0.0094	0.0046
	0.0028	0.0024	0.0021	0.0032	0.0106					
2	0.0276	0.0496	0.0706	0.0642	0.0604	0.0580	0.0458	0.0551	0.0689	0.0580
	0.0524	0.0620	0.0453	0.0531	0.0537	0.0391	0.0313	0.0219	0.0158	0.0098
	0.0085	0.0075	0.0050	0.0089	0.0274					
3	0.0276	0.0496	0.0706	0.0642	0.0604	0.0580	0.0458	0.0551	0.0689	0.0580
	0.0524	0.0620	0.0453	0.0531	0.0537	0.0391	0.0313	0.0219	0.0158	0.0098
	0.0085	0.0075	0.0050	0.0089	0.0274					
4	0.0524	0.0899	0.0831	0.0823	0.0609	0.0863	0.0544	0.0773	0.0563	0.0423
	0.0342	0.0272	0.0332	0.0344	0.0300	0.0193	0.0244	0.0190	0.0125	0.0070
	0.0068	0.0048	0.0061	0.0160	0.0399					
5	0.0524	0.0899	0.0831	0.0823	0.0609	0.0863	0.0544	0.0773	0.0563	0.0423
	0.0342	0.0272	0.0332	0.0344	0.0300	0.0193	0.0244	0.0190	0.0125	0.0070
	0.0068	0.0048	0.0061	0.0160	0.0399					
16	0.0662	0.0977	0.0911	0.0703	0.0551	0.0559	0.0519	0.0359	0.0281	0.0240
	0.0214	0.0156	0.0164	0.0156	0.0115	0.0176	0.0246	0.0295	0.0242	0.0275
	0.0335	0.0305	0.0323	0.0226	0.1010					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Westmoreland County 2002 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0492	0.0747	0.0842	0.0800	0.0782	0.0760	0.0680	0.0737	0.0630	0.0577
	0.0500	0.0470	0.0403	0.0377	0.0307	0.0235	0.0182	0.0127	0.0093	0.0052



	0.0030	0.0024	0.0021	0.0031	0.0101					
2	0.0275	0.0463	0.0599	0.0581	0.0581	0.0548	0.0460	0.0550	0.0779	0.0585
	0.0528	0.0598	0.0468	0.0529	0.0562	0.0397	0.0310	0.0252	0.0192	0.0100
	0.0095	0.0064	0.0049	0.0095	0.0344					
3	0.0275	0.0463	0.0599	0.0581	0.0581	0.0548	0.0460	0.0550	0.0779	0.0585
	0.0528	0.0598	0.0468	0.0529	0.0562	0.0397	0.0310	0.0252	0.0192	0.0100
	0.0095	0.0064	0.0049	0.0095	0.0344					
4	0.0545	0.0840	0.0812	0.0778	0.0626	0.0814	0.0512	0.0697	0.0628	0.0388
	0.0362	0.0254	0.0337	0.0324	0.0287	0.0217	0.0270	0.0194	0.0161	0.0094
	0.0066	0.0051	0.0056	0.0188	0.0499					
5	0.0545	0.0840	0.0812	0.0778	0.0626	0.0814	0.0512	0.0697	0.0628	0.0388
	0.0362	0.0254	0.0337	0.0324	0.0287	0.0217	0.0270	0.0194	0.0161	0.0094
	0.0066	0.0051	0.0056	0.0188	0.0499					
16	0.0654	0.0997	0.0913	0.0730	0.0503	0.0437	0.0414	0.0290	0.0280	0.0242
	0.0203	0.0175	0.0151	0.0156	0.0137	0.0228	0.0362	0.0301	0.0269	0.0303
	0.0357	0.0369	0.0309	0.0215	0.1006					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Allegheny County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0615	0.0824	0.0844	0.0893	0.0820	0.0865	0.0742	0.0655	0.0602	0.0507
	0.0504	0.0428	0.0356	0.0285	0.0243	0.0195	0.0165	0.0120	0.0088	0.0068
	0.0050	0.0037	0.0019	0.0012	0.0063					
2	0.0517	0.0830	0.0789	0.0689	0.0690	0.0790	0.0678	0.0535	0.0579	0.0383
	0.0512	0.0488	0.0353	0.0281	0.0273	0.0251	0.0256	0.0231	0.0161	0.0150
	0.0106	0.0078	0.0042	0.0042	0.0295					
3	0.0517	0.0830	0.0789	0.0689	0.0690	0.0790	0.0678	0.0535	0.0579	0.0383
	0.0512	0.0488	0.0353	0.0281	0.0273	0.0251	0.0256	0.0231	0.0161	0.0150
	0.0106	0.0078	0.0042	0.0042	0.0295					
4	0.0567	0.1139	0.0934	0.0787	0.0767	0.0741	0.0655	0.0496	0.0645	0.0401
	0.0532	0.0419	0.0275	0.0232	0.0166	0.0196	0.0201	0.0163	0.0103	0.0115
	0.0089	0.0061	0.0037	0.0028	0.0252					
5	0.0567	0.1139	0.0934	0.0787	0.0767	0.0741	0.0655	0.0496	0.0645	0.0401
	0.0532	0.0419	0.0275	0.0232	0.0166	0.0196	0.0201	0.0163	0.0103	0.0115
	0.0089	0.0061	0.0037	0.0028	0.0252					
16	0.0670	0.0898	0.1119	0.0832	0.0708	0.0678	0.0552	0.0407	0.0337	0.0312
	0.0260	0.0221	0.0200	0.0153	0.0118	0.0112	0.0115	0.0102	0.0142	0.0213
	0.0196	0.0153	0.0206	0.0245	0.1050					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Armstrong County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0387	0.0657	0.0673	0.0741	0.0690	0.0821	0.0704	0.0638	0.0622	0.0602
	0.0593	0.0531	0.0449	0.0368	0.0328	0.0264	0.0235	0.0189	0.0128	0.0098
	0.0080	0.0062	0.0031	0.0017	0.0094					
2	0.0400	0.0736	0.0671	0.0578	0.0578	0.0642	0.0602	0.0506	0.0642	0.0404
	0.0576	0.0508	0.0352	0.0327	0.0300	0.0304	0.0325	0.0278	0.0212	0.0177
	0.0163	0.0105	0.0058	0.0065	0.0493					
3	0.0400	0.0736	0.0671	0.0578	0.0578	0.0642	0.0602	0.0506	0.0642	0.0404
	0.0576	0.0508	0.0352	0.0327	0.0300	0.0304	0.0325	0.0278	0.0212	0.0177
	0.0163	0.0105	0.0058	0.0065	0.0493					
4	0.0382	0.1044	0.0827	0.0670	0.0643	0.0685	0.0625	0.0467	0.0660	0.0392
	0.0597	0.0443	0.0266	0.0271	0.0203	0.0234	0.0246	0.0155	0.0163	0.0163
	0.0142	0.0121	0.0057	0.0060	0.0483					
5	0.0382	0.1044	0.0827	0.0670	0.0643	0.0685	0.0625	0.0467	0.0660	0.0392

	0.0597	0.0443	0.0266	0.0271	0.0203	0.0234	0.0246	0.0155	0.0163	0.0163
	0.0142	0.0121	0.0057	0.0060	0.0483					
16	0.0739	0.0977	0.1070	0.0724	0.0745	0.0595	0.0424	0.0336	0.0238	0.0253
	0.0233	0.0181	0.0222	0.0129	0.0134	0.0088	0.0165	0.0160	0.0134	0.0217
	0.0269	0.0176	0.0207	0.0357	0.1225					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Beaver County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG DIST										
1	0.0389	0.0743	0.0779	0.0825	0.0755	0.0852	0.0744	0.0676	0.0625	0.0547
	0.0562	0.0502	0.0395	0.0316	0.0281	0.0226	0.0204	0.0146	0.0106	0.0085
	0.0063	0.0045	0.0025	0.0014	0.0091					
2	0.0330	0.0732	0.0666	0.0597	0.0644	0.0710	0.0655	0.0563	0.0608	0.0458
	0.0505	0.0540	0.0420	0.0331	0.0309	0.0286	0.0284	0.0258	0.0171	0.0169
	0.0130	0.0106	0.0049	0.0056	0.0420					
3	0.0330	0.0732	0.0666	0.0597	0.0644	0.0710	0.0655	0.0563	0.0608	0.0458
	0.0505	0.0540	0.0420	0.0331	0.0309	0.0286	0.0284	0.0258	0.0171	0.0169
	0.0130	0.0106	0.0049	0.0056	0.0420					
4	0.0380	0.1059	0.0908	0.0707	0.0722	0.0702	0.0642	0.0533	0.0690	0.0460
	0.0535	0.0470	0.0300	0.0260	0.0184	0.0214	0.0207	0.0160	0.0105	0.0131
	0.0104	0.0082	0.0042	0.0035	0.0367					
5	0.0380	0.1059	0.0908	0.0707	0.0722	0.0702	0.0642	0.0533	0.0690	0.0460
	0.0535	0.0470	0.0300	0.0260	0.0184	0.0214	0.0207	0.0160	0.0105	0.0131
	0.0104	0.0082	0.0042	0.0035	0.0367					
16	0.0634	0.0974	0.1207	0.0816	0.0741	0.0598	0.0555	0.0350	0.0261	0.0256
	0.0265	0.0224	0.0182	0.0139	0.0128	0.0124	0.0130	0.0126	0.0137	0.0235
	0.0205	0.0160	0.0216	0.0231	0.1106					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Butler County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG DIST										
1	0.0903	0.1233	0.1075	0.0800	0.0653	0.0734	0.0651	0.0576	0.0543	0.0465
	0.0462	0.0376	0.0322	0.0251	0.0221	0.0165	0.0155	0.0107	0.0079	0.0058
	0.0043	0.0034	0.0017	0.0011	0.0065					
2	0.0602	0.0891	0.0729	0.0622	0.0598	0.0724	0.0635	0.0506	0.0569	0.0414
	0.0504	0.0470	0.0346	0.0299	0.0273	0.0275	0.0278	0.0236	0.0164	0.0157
	0.0129	0.0085	0.0053	0.0045	0.0397					
3	0.0602	0.0891	0.0729	0.0622	0.0598	0.0724	0.0635	0.0506	0.0569	0.0414
	0.0504	0.0470	0.0346	0.0299	0.0273	0.0275	0.0278	0.0236	0.0164	0.0157
	0.0129	0.0085	0.0053	0.0045	0.0397					
4	0.0589	0.1135	0.0856	0.0724	0.0643	0.0663	0.0603	0.0486	0.0647	0.0413
	0.0525	0.0398	0.0294	0.0250	0.0177	0.0226	0.0233	0.0182	0.0125	0.0153
	0.0125	0.0081	0.0048	0.0045	0.0378					
5	0.0589	0.1135	0.0856	0.0724	0.0643	0.0663	0.0603	0.0486	0.0647	0.0413
	0.0525	0.0398	0.0294	0.0250	0.0177	0.0226	0.0233	0.0182	0.0125	0.0153
	0.0125	0.0081	0.0048	0.0045	0.0378					
16	0.0588	0.0777	0.1003	0.0854	0.0768	0.0697	0.0539	0.0404	0.0377	0.0357
	0.0263	0.0223	0.0182	0.0143	0.0133	0.0141	0.0120	0.0131	0.0150	0.0254
	0.0246	0.0152	0.0261	0.0274	0.0962					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Greene County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG DIST

1	0.0376	0.0733	0.0718	0.0731	0.0699	0.0791	0.0653	0.0569	0.0571	0.0546
	0.0554	0.0532	0.0484	0.0391	0.0352	0.0327	0.0285	0.0210	0.0137	0.0100
	0.0072	0.0063	0.0021	0.0010	0.0074					
2	0.0367	0.0779	0.0707	0.0627	0.0658	0.0710	0.0600	0.0462	0.0530	0.0378
	0.0492	0.0474	0.0384	0.0324	0.0320	0.0317	0.0345	0.0311	0.0222	0.0216
	0.0155	0.0141	0.0060	0.0060	0.0365					
3	0.0367	0.0779	0.0707	0.0627	0.0658	0.0710	0.0600	0.0462	0.0530	0.0378
	0.0492	0.0474	0.0384	0.0324	0.0320	0.0317	0.0345	0.0311	0.0222	0.0216
	0.0155	0.0141	0.0060	0.0060	0.0365					
4	0.0411	0.1177	0.0950	0.0827	0.0757	0.0651	0.0593	0.0430	0.0537	0.0338
	0.0517	0.0302	0.0240	0.0254	0.0184	0.0229	0.0263	0.0204	0.0157	0.0184
	0.0131	0.0151	0.0056	0.0042	0.0414					
5	0.0411	0.1177	0.0950	0.0827	0.0757	0.0651	0.0593	0.0430	0.0537	0.0338
	0.0517	0.0302	0.0240	0.0254	0.0184	0.0229	0.0263	0.0204	0.0157	0.0184
	0.0131	0.0151	0.0056	0.0042	0.0414					
16	0.0647	0.0947	0.1039	0.1028	0.0751	0.0531	0.0462	0.0346	0.0289	0.0208
	0.0242	0.0162	0.0185	0.0115	0.0162	0.0081	0.0162	0.0196	0.0139	0.0289
	0.0139	0.0231	0.0185	0.0289	0.1178					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Lawrence County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG	DIST									
1	0.0350	0.0639	0.0698	0.0743	0.0685	0.0804	0.0739	0.0685	0.0624	0.0620
	0.0593	0.0526	0.0437	0.0383	0.0315	0.0265	0.0227	0.0175	0.0119	0.0096
	0.0076	0.0049	0.0029	0.0018	0.0105					
2	0.0571	0.0328	0.0389	0.0377	0.0680	0.0753	0.0632	0.0680	0.0535	0.0583
	0.0875	0.0522	0.0413	0.0340	0.0328	0.0328	0.0328	0.0377	0.0304	0.0182
	0.0170	0.0122	0.0024	0.0000	0.0158					
3	0.0571	0.0328	0.0389	0.0377	0.0680	0.0753	0.0632	0.0680	0.0535	0.0583
	0.0875	0.0522	0.0413	0.0340	0.0328	0.0328	0.0328	0.0377	0.0304	0.0182
	0.0170	0.0122	0.0024	0.0000	0.0158					
4	0.0402	0.0960	0.0778	0.0697	0.0645	0.0621	0.0694	0.0532	0.0694	0.0468
	0.0602	0.0428	0.0286	0.0271	0.0222	0.0218	0.0271	0.0200	0.0139	0.0163
	0.0114	0.0092	0.0047	0.0041	0.0414					
5	0.0402	0.0960	0.0778	0.0697	0.0645	0.0621	0.0694	0.0532	0.0694	0.0468
	0.0602	0.0428	0.0286	0.0271	0.0222	0.0218	0.0271	0.0200	0.0139	0.0163
	0.0114	0.0092	0.0047	0.0041	0.0414					
16	0.0552	0.0746	0.0943	0.0844	0.0787	0.0692	0.0525	0.0380	0.0308	0.0323
	0.0266	0.0205	0.0240	0.0183	0.0087	0.0099	0.0110	0.0122	0.0148	0.0278
	0.0304	0.0175	0.0217	0.0278	0.1187					

(Truck Age Distributions Assume MOBILE6 National Defaults)

### Washington County 2005 Vehicle Age Distributions Input to MOBILE6.2

REG	DIST									
1	0.0447	0.0780	0.0827	0.0886	0.0754	0.0858	0.0728	0.0664	0.0597	0.0523
	0.0527	0.0458	0.0388	0.0305	0.0274	0.0228	0.0197	0.0149	0.0106	0.0080
	0.0059	0.0044	0.0025	0.0014	0.0082					
2	0.0400	0.0764	0.0717	0.0654	0.0703	0.0735	0.0661	0.0510	0.0584	0.0419
	0.0532	0.0484	0.0358	0.0299	0.0302	0.0277	0.0274	0.0263	0.0183	0.0166
	0.0134	0.0085	0.0047	0.0051	0.0397					
3	0.0400	0.0764	0.0717	0.0654	0.0703	0.0735	0.0661	0.0510	0.0584	0.0419
	0.0532	0.0484	0.0358	0.0299	0.0302	0.0277	0.0274	0.0263	0.0183	0.0166
	0.0134	0.0085	0.0047	0.0051	0.0397					
4	0.0402	0.1079	0.0885	0.0754	0.0792	0.0688	0.0658	0.0478	0.0661	0.0406
	0.0597	0.0428	0.0292	0.0234	0.0179	0.0221	0.0215	0.0180	0.0123	0.0142
	0.0109	0.0066	0.0033	0.0036	0.0342					
5	0.0402	0.1079	0.0885	0.0754	0.0792	0.0688	0.0658	0.0478	0.0661	0.0406
	0.0597	0.0428	0.0292	0.0234	0.0179	0.0221	0.0215	0.0180	0.0123	0.0142

	0.0109	0.0066	0.0033	0.0036	0.0342					
16	0.0693	0.0927	0.1087	0.0911	0.0652	0.0706	0.0490	0.0410	0.0384	0.0338
	0.0255	0.0207	0.0158	0.0155	0.0095	0.0113	0.0106	0.0075	0.0144	0.0185
	0.0214	0.0142	0.0171	0.0203	0.1179					

**(Truck Age Distributions Assume MOBILE6 National Defaults)**

### **Westmoreland County 2005 Vehicle Age Distributions Input to MOBILE6.2**

REG DIST										
1	0.0415	0.0766	0.0809	0.0866	0.0763	0.0839	0.0732	0.0668	0.0617	0.0528
	0.0553	0.0458	0.0393	0.0323	0.0286	0.0228	0.0193	0.0148	0.0108	0.0085
	0.0060	0.0044	0.0025	0.0015	0.0077					
2	0.0381	0.0782	0.0717	0.0632	0.0665	0.0715	0.0675	0.0518	0.0571	0.0397
	0.0515	0.0535	0.0362	0.0309	0.0282	0.0277	0.0279	0.0273	0.0177	0.0171
	0.0122	0.0103	0.0056	0.0049	0.0438					
3	0.0381	0.0782	0.0717	0.0632	0.0665	0.0715	0.0675	0.0518	0.0571	0.0397
	0.0515	0.0535	0.0362	0.0309	0.0282	0.0277	0.0279	0.0273	0.0177	0.0171
	0.0122	0.0103	0.0056	0.0049	0.0438					
4	0.0407	0.1108	0.0928	0.0762	0.0750	0.0703	0.0666	0.0501	0.0623	0.0387
	0.0518	0.0438	0.0288	0.0237	0.0157	0.0213	0.0197	0.0172	0.0123	0.0153
	0.0099	0.0099	0.0053	0.0035	0.0382					
5	0.0407	0.1108	0.0928	0.0762	0.0750	0.0703	0.0666	0.0501	0.0623	0.0387
	0.0518	0.0438	0.0288	0.0237	0.0157	0.0213	0.0197	0.0172	0.0123	0.0153
	0.0099	0.0099	0.0053	0.0035	0.0382					
16	0.0809	0.0952	0.1114	0.0806	0.0692	0.0644	0.0517	0.0367	0.0322	0.0277
	0.0202	0.0182	0.0180	0.0129	0.0117	0.0119	0.0113	0.0095	0.0164	0.0228
	0.0196	0.0186	0.0179	0.0234	0.1172					

**(Truck Age Distributions Assume MOBILE6 National Defaults)**

**California LEVII Exhaust Certification Bin File (LEVIISTD.D)**

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0.075, 0.075, 0.100, 0.140, 0.140,  
0.125, 0.125, 0.125, 0.160, 0.195,  
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0.075, 0.075, 0.100, 0.160, 0.195,  
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0.200, 0.200, 0.400, 0.400, 0.600,  
0.000, 0.000, 0.000, 0.000, 0.000/

**California LEVII Phase-In Percentages by Exhaust Certification Bin (PAL2EXH.08)**

\* This file is a combination of MOBILE6.2 default T2EVAP.d file (2004-2007)  
\* and California LEVIIPH.D file (2008 and above) from EPA

T2 EXH PHASE-IN  
0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000  
0.000,0.000,0.000,0.100,0.450,0.505,0.552,0.598,0.653,0.653,0.653,0.683  
0.000,0.000,0.000,0.300,0.000,0.293,0.246,0.200,0.144,0.144,0.144,0.113  
0.000,0.000,0.000,0.200,0.147,0.101,0.101,0.101,0.101,0.101,0.101,0.102  
0.000,0.000,0.000,0.000,0.252,0.061,0.061,0.061,0.061,0.061,0.061,0.061  
0.386,0.787,1.000,0.400,0.151,0.040,0.040,0.040,0.041,0.041,0.041,0.041  
0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000  
0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000  
0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000  
0.614,0.213,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000  
0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000,0.000  
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0.000,0.000,0.000,0.100,0.450,0.505,0.552,0.598,0.653,0.653,0.653,0.683  
0.000,0.000,0.000,0.300,0.000,0.293,0.246,0.200,0.144,0.144,0.144,0.113  
0.000,0.000,0.000,0.200,0.147,0.101,0.101,0.101,0.101,0.101,0.101,0.102  
0.386,0.787,1.000,0.400,0.151,0.061,0.061,0.061,0.061,0.061,0.061,0.061  
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**APPENDIX E-5**

**Statistical Evaluation of Projected Traffic Growth:  
Traffic Growth Forecasting System Report**

**Bureau of Air Quality  
Department of Environmental Protection**

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