ENCLOSURE 2

Commonwealth of Virginia
Department of Environmental Quality

Technical Support Document For The Redesignation Request and Maintenance Plan For Hampton Roads 8-hour Ozone Nonattainment Area

Final

October 16, 2006

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Commonwealth of Virginia
Technical Support Document

1. Introduction

The following sections provide detailed information on the point, area, non-road, and mobile source emission estimates used in the request for re-designation to attainment and the ozone maintenance plan for the Hampton Roads non-attainment area. The sections below provide information on growth factors used to project emission inventories as well as methods used to determine the growth factors.

2. Emissions Summary

The table below, Table 2-1, provides a summary of the 2002, 2005, 2011, and 2018 emissions for the Hampton Roads area, by classification.

Table 2-1					
VOC Emissions, Tons per Typical Summer Weekday					
Year	**Point**	**Area**	**Nonroad[1]**	**Mobile[2]**	**Total**
2002	18.758	87.402	46.543	67.293	219.996
2005	20.091	91.980	42.320	50.591	204.982
Difference 2002-2005	1.333	4.578	-4.223	-16.702	-15.014
2011	23.280	100.960	33.912	37.846	195.998
Difference 2005-2011	3.189	8.980	-8.408	-12.745	-8.984
2018	26.700	112.790	31.315	27.574	198.379
Difference 2005-2018	6.609	20.810	-11.005	-23.017	-6.603
NO_X Emissions, Tons per Typical Summer Weekday					
Year	**Point**	**Area**	**Nonroad[1]**	**Mobile[2]**	**Total**
2002	91.403	57.961	31.002	93.844	274.210
2005	62.536	55.207	30.208	78.169	226.120
Difference 2002-2005	-28.867	-2.754	-0.794	-15.675	-48.090
2011	69.333	56.974	29.116	50.387	205.810
Difference 2005-2011	6.797	1.767	-1.092	-27.782	-20.310
2018	75.241	60.105	23.093	31.890	190.329
Difference 2005-2018	12.705	4.898	-7.115	-46.279	-35.791

[1]Includes site/project specific emissions estimates and projections. See Chapter 7.3 for details.
[2]Includes site specific emissions estimates and transportation conformity safety margins for VOC and NO_X. See Chapters 4 and 7.3 for details.

Table 2-1, Continued					
CO Emissions, Tons per Typical Summer Weekday					
Year	**Point**	**Area**	**Nonroad[1]**	**Mobile[2]**	**Total**
2002	91.282	54.950	394.471	848.362	1,389.065
2005	91.306	56.555	417.125	642.103	1,207.089
Difference 2002-2005	0.024	1.605	22.654	-206.259	-181.976
2011	95.066	59.568	445.663	449.703	1,050.000
Difference 2005-2011	3.760	3.013	28.538	-192.400	-157.089
2018	99.407	65.457	480.778	406.251	1,051.893
Difference 2005-2018	8.101	8.902	63.653	-235.852	-155.196

[1]Includes site/project specific emissions estimates and projections. See Chapter 7.3 for details.
[2]Includes site specific emissions estimates. See Chapter 7.3 for details.

3. Point Source Emissions

The purpose of this section is to document the development of the actual and projected stationary point source emission inventories for the Hampton Roads non-attainment area to support the request for re-designation to attainment and the ozone standard maintenance plan. The emission inventories developed for these purposes include actual inventories for the calendar year 2002 and projected inventories for the calendar years 2005, 2011, and 2018. Particularly, for large utilities, available actual NO_X emissions for the year 2005 based on the continuous emission monitors (CEM) has been used. This information was downloaded from the Clean Air Markets Division (CAMD) website. The point source inventories presented here cover all stationary sources with pollutant emissions of ten tons per year or greater. As is the case with all inventories developed for ozone state implementation plan (SIP) planning purposes, these inventories are presented as average summer weekday emissions.

In general, the process of estimating stationary point source emissions is as follows. All these sources are permitted and/or registered with Virginia DEQ and are subsequently recorded and maintained electronically in the Department's Comprehensive Environmental Data System (CEDS). The emissions for these sources are updated annually by collecting year-specific emissions and/or activity level information. In this way, annual emissions inventories are developed and maintained by the Department for air quality purposes. In addition, major sources of ozone precursor pollutant emissions located in non-attainment areas are required to submit yearly emission statements containing detailed information on annual and typical summer weekday emissions.

The programs mentioned above are the main sources of the emission information used in this re-designation/maintenance package. Data collected from the sources involved is entered into the agency data system as annual air pollutant emissions estimates. These estimates are based on a number of acceptable estimation methods including continuous emissions monitors, source specific testing, emissions factors, and other methods. The annual estimates are converted into typical summer weekday emissions using standard internal calculation routines in the CEDS system. These internal calculations account for weekly/seasonal variation in source operations as well as other pertinent factors such as rule effectiveness (RE).

When developing these point source inventories, a cutoff emissions level of 10 tons/year of ozone precursor pollutants was used to determine whether a source was included in these inventories. Smaller emissions sources are assumed to be included in the area source emissions inventories.

The remainder of this section discusses the individual calendar year inventories and the methods used in their development.

3.1. 2002 Point Source Inventory

A design year emissions inventory, representing non-attainment conditions and a "worst case" emissions scenario contributing to ozone violations in the Hampton Roads area, is required as the starting point for the re-designation request. In this case, the design year selected is 2002, which is the middle year of the three year period of 2001 to 2003 used to determine the non-attainment status of the area for designation purpose under the 8-hour ozone standard. This year also represents the most active ozone year of this period in terms of ozone exceedances. To develop this inventory, actual annual and summer weekday point source emissions for 2002 were obtained from the CEDS data base. This inventory year has undergone substantial analysis and quality assurance review because of its status as the base year for air quality planning purposes for ozone, fine particulate matter, and regional haze. This inventory is also consistent with the 2002 data submitted to the National Emissions Inventory (NEI) for base and periodic emissions inventory (PEI) year purposes. The resulting annual and summer weekday point source emissions inventory is presented in Table 3.1-1.

TABLE 3.1-1

2002 HAMPTON ROADS NON-ATTAINMENT AREA POINT SOURCE INVENTORY FOR VOC, NO_X AND CO

Jurisdiction County/City	State-County-Plant ID Reg#	Facility Name	SIC	VOC	NOX	CO
				2002 Emissions, Tons/day		
Gloucester	51-073-00032 40920	**Middle Peninsula Landfill**	4953	0.0236	0.0970	0.0175
	51-073-52004 52004	**Middle Peninsula Landfill and Recyc Fac - Portable**	4953	0.0044	0.0548	0.0118
		Total		**0.0280**	**0.1518**	**0.0293**
Isle of Wight	51-093-00004 60102	**Walters Grain and Supply**	5153	0.0002	0.0011	0.0002
	51-093-00006 60214	**International Paper Company**	2621	3.2266	8.7828	8.4891
	51-093-00011 60270	**Smithfield Foods Inc**	2011	0.0410	0.2323	0.1889
	51-093-00018 60171	**Nevamar Company LLC**	2493	1.0063	0.4148	0.3338
	51-093-00038 61342	**Southern Structural Steel, Incorporated**	3441	0.0339		
	51-093-00057 61448	**International Paper - Franklin Lumber Mill**	2421	0.3970		
		Total		**4.7051**	**9.4310**	**9.0119**
James City	51-095-00008 60065	**Ball Metal Beverage Container Corporation**	3411	0.9998	0.0372	0.0233
	51-095-00010 60152	**Anheuser-Busch Incorporated**	2082	0.5024	0.2892	0.2218
	51-095-00022 60923	**Owens-Brockway Glass Container**	3221	0.0510	1.2178	0.0607
	51-095-00023 60355	**HRSD Williamsburg Sewage Treatment Plant**	4952	0.0312	0.0905	0.3180
	51-095-00024 60611	**Branscome Inc - Lee Hall**	2951	0.0941	0.0415	0.0210
		Total		**1.6785**	**1.6763**	**0.6448**
York	51-199-00001 60137	**Dominion - Yorktown Power Station**	4911	0.2981	27.0254	2.0722
	51-199-00002 60301	**US Navy Naval Weapons Station Yorktown**	9711	0.0487	0.2950	0.0960
	51-199-00004 60116	**Giant Yorktown Refinery**	2911	3.7426	4.4882	63.5449
		Total		**4.0893**	**31.8086**	**65.7131**

TABLE 3.1-1						
2002 HAMPTON ROADS NON-ATTAINMENT AREA POINT SOURCE INVENTORY FOR VOC, NO_X AND CO						
Jurisdiction County/City	State-County-Plant ID Reg#	Facility Name	SIC	VOC	NOX	CO
				2002 Emissions, Tons/day		
Chesapeake	51-550-00004 60077	Lafarge Calcium Aluminates Incorporated	3241	0.0007	0.1700	0.0076
	51-550-00013 60016	Center Terminal Company – Norfolk	5171	0.0442		
	51-550-00015 60039	Chesapeake Grain Company	5153	0.0000	0.0026	
	51-550-00016 60050	Kinder Morgan/Elizabeth River Terminals, LLC	4491	0.0003	0.0066	0.0014
	51-550-00017 60069	Allied Terminals Incorporated – Chesapeake	4226	0.0650	0.0016	
	51-550-00023 60149	IMTT Chesapeake	4226	0.0230	0.0953	0.0801
	51-550-00025 60161	Citgo Petroleum Chesapeake Terminal	5171	0.1097	0.0053	0.0134
	51-550-00026 60163	Dominion – Chesapeake	4911	0.1504	28.7048	1.2516
	51-550-00028 60179	Apex Oil Company – Chesapeake Terminal Division	5171	0.0395	0.0554	0.0125
	51-550-00035 60242	Transmontaigne Product Services	4226	0.0602	0.0045	0.0113
	51-550-00044 60127	Royster-Clark Incorporated – Chesapeake Plant	2874	0.0005	0.0405	0.0037
	51-550-00047 60274	ExxonMobil Oil Corporation – Chesapeake	4226	0.1630		
	51-550-00052 60342	NOVA Chemicals Incorporated	2821	0.0139	0.0578	0.0255
	51-550-00056 60851	Chesapeake Hardwood Products Inc	2435	0.2569	0.0333	0.0200
	51-550-00092 60920	Amerada Hess Corporation – Chesapeake	5171	0.1198	0.0199	0.0018
	51-550-00138 61026	Dave's Cabinet	2434	0.0462		
	51-550-00161 61108	Commonwealth Atlantic Limited Partnership-Chesapea	4911	0.0482	3.7480	0.7977
	51-550-00182 61254	Port Allen Marine Services	3731	0.0486		
		Total		1.1903	32.9457	2.2267
Hampton	51-650-00006 60051	US NASA – Langley Research Center	9661	0.0138	0.1975	0.1434
	51-650-00007 60059	US Air Force Base Langley	9711	0.0284	0.1064	0.0228
	51-650-00010 60106	Hampton University	8221	0.0063	0.0961	0.0611
	51-650-00011 60141	US Department of Veterans Affairs Medical Ctr	9451	0.0039	0.0896	0.0200
	51-650-00061 61019	Hampton/NASA Steam Plant	4961	0.0109	0.4337	0.0198
	51-650-00069 60636	Howmet Castings, an Alcoa Company	3369	0.0221	0.0589	0.0354
	51-650-00093 61291	Bethel Landfill	4953	0.0181	0.0716	0.1116
		Total		0.1034	1.0537	0.4141
Newport News	51-700-00002 60333	US Army Fort Eustis (Army Transport Center)	9711	0.0386	0.0685	0.0404
	51-700-00013 60153	Newport News Shipbuilding	3731	0.6565	0.9920	0.2108
	51-700-00019 60208	Mica Company of Canada Inc	3299	0.4946	0.0014	0.0012
	51-700-00055 60476	Siemens VDO Automotive Corporation	3714	0.1636		
	51-700-00066 60913	Shorewood Packaging Corporation	2754	0.1343	0.0093	0.0078
	51-700-00068 60351	HRSD Boat Harbor Sewage Treatment	4952	0.0305	0.2218	0.3658

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2002 HAMPTON ROADS NON-ATTAINMENT AREA POINT SOURCE INVENTORY FOR VOC, NO_X AND CO						
Jurisdiction County/City	State-County-Plant ID Reg#	Facility Name	SIC	VOC	NOX	CO
				2002 Emissions, Tons/day		
		Plant				
	51-700-00089 61078	Basic Construction – Newport News	2951	0.0091	0.0320	0.1737
	51-700-00091 61085	Kinyo Virginia Incorporated	3069	0.1946	0.0120	0.0101
		Total		1.7218	1.3369	0.8098
Norfolk	51-710-00006 60246	Norfolk Shipbuilding and Drydock – Berkley	3731	0.1691	0.2051	0.0420
	51-710-00009 60268	Ford Motor Company Norfolk Plant	3711	2.4598	0.1534	0.1288
	51-710-00028 60108	Colonnas Shipyard Pescara Creek To Railway 4	3731	0.0950		
	51-710-00034 60134	Metro Machine Corporation	3731	0.1309	0.0075	0.0063
	51-710-00042 60164	Sentara Norfolk General Hospital	4961	0.0034	0.1090	0.0374
	51-710-00068 60234	U S Gypsum Co	3275	0.0002	0.0045	0.0015
	51-710-00113 60750	J H Miles & Company Incorporated	2092	0.0001	0.0110	0.0028
	51-710-00194 60941	US Navy Norfolk Naval Base-Sewells Point	9711	0.3027	0.7047	0.4005
	51-710-00196 60349	HRSD Army Base Sewage Treatment Plant	4952	0.0227	0.0366	0.2001
	51-710-00197 60350	HRSD Virginia Initiative Plant	4952	0.0487	0.1125	0.3389
	51-710-00219 61038	American Waste Industries, Incorporated	4952	0.0032	0.1059	0.0018
	51-710-00263 61336	Flowers Baking Company of Norfolk	2051	0.1063	0.0069	0.0058
	51-710-00267 61347	Sorrentino Mariani & Company Incorporated	2511	0.1002		
	51-710-00269 61351	Bock Drum Company, Incorporated	7699	0.0675	0.0008	0.0002
		Total		3.5098	1.4579	1.1661
Portsmouth	51-740-00006 60326	US Navy – Norfolk Naval Shipyard	9711	0.2126	0.2364	6.2302
	51-740-00007 60293	US Navy Portsmouth Naval Hospital	8062	0.0138	0.3842	0.1190
	51-740-00024 60291	BASF Corporation Portsmouth Plant	2821	0.1037		
	51-740-00037 60583	Fleet & Industrial Supply Center	5171	0.0572		
	51-740-00069 60884	Associated Naval Architects	3731	0.0294		
	51-740-00075 61000	APAC Virginia Incorporated 800 Constitution Avenue	2951	0.0146	0.0458	0.2290
	51-740-00078 61018	SPSA Refuse Derived Fuel Plant	4952	0.0003	4.6627	1.7813
	51-740-00081 61049	Cogentrix Virginia Leasing Corp	4911	0.0037	2.4071	0.1448
	51-740-00104 61329	Radva Corporation Portsmouth	3089	0.1169	0.0073	0.0061
		Total		0.5522	7.7436	8.5105
Suffolk	51-800-00033 60302	Blair Bros Incorporated	2951	0.1247	0.1629	0.0488
	51-800-00050 60467	VITEX Packaging Incorporated	2754	0.0828		
	51-800-00084 60894	Griffin Oil Company	5171	0.0422		
	51-800-00091 60998	Ciba Specialty Chemicals Corporation	2869	0.0380	0.0652	0.0230
	51-800-00101 61083	Branscome Inc – Suffolk	2951	0.0423	0.0644	0.0251
	51-800-00106 61100	Sonoco Products Company	2655	0.1225		
	51-800-00109 61137	Pow.Gen.(Suffolk) & Suff Energy	4911	0.0025	0.1181	0.1819

TABLE 3.1-1						
2002 HAMPTON ROADS NON-ATTAINMENT AREA POINT SOURCE INVENTORY FOR VOC, NO_X AND CO						
Jurisdiction County/City	State-County-Plant ID Reg#	Facility Name	SIC	VOC	NOX	CO
				2002 Emissions, Tons/day		
		Partners				
	51-800-00112 61171	**Crown Cork and Seal (USA)**	3411	0.0858		
	51-800-00121 61341	**SPSA Regional Landfill 1 Bob Foeller Drive**	4953	0.0001	0.0097	0.1824
		Total		**0.5409**	**0.4204**	**0.4612**

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Jurisdiction County/City	State-County-Plant ID Reg#	Facility Name	SIC	VOC	NOX	CO
				2002 Emissions, Tons/day		
Virginia Beach	51-810-00001 60023	Contractors Paving Company, Incorporated 121 Chest	2951	0.0220	0.0703	0.2210
	51-810-00004 60294	US Navy Naval Air Station Oceana	9711	0.1847	1.0439	0.9242
	51-810-00005 60330	US Army Ft. Story	9711	0.1126	0.0092	0.0030
	51-810-00006 60280	US Navy Dam Neck Annex	9711	0.0070	0.1174	0.0384
	51-810-00013 60033	US Navy Little Creek Amphibious Base	9711	0.0651	0.4342	0.0557
	51-810-00034 60431	HRSD Chesapeake-Elizabeth Sewage Treatment Plant	4952	0.0382	0.1904	0.2855
	51-810-00044 60995	Stihl Incorporated	3546	0.0149	0.0057	0.2216
	51-810-00060 60741	Servitex Incorporated	7213	0.0020	0.2103	0.0470
	51-810-00105 61322	Virginia Beach Landfill II	4953	0.0019	0.0075	0.1404
	51-810-00109 61354	Storopack Incorporated	3086	0.0524	0.0014	0.0003
	51-810-00117 61423	INGENCO - Virginia Beach	4931	0.1356	1.2415	0.3195
		Total		**0.6363**	**3.3317**	**2.2566**
Williamsburg	51-830-00030 60401	Colonial Williamsburg Foundation	7999	0.0026	0.0453	0.0378
		Total		**0.0026**	**0.0453**	**0.0378**
		Grand Total		**18.7581**	**91.4030**	**91.2820**

3.2. 2005, 2011, and 2018 Projected Point Source Emissions

3.2.1. 2005 Attainment Year Emissions Inventory

An attainment year emissions inventory that is representative of conditions when the attainment of the ozone standard was recorded is also required for plan purposes. This inventory serves two important purposes. First, it documents the improvement in air quality through permanent and enforceable reductions from the design (non-attainment) year. Secondly, when combined with the other major inventory categories (area, non-road, and mobile), it establishes the overall pollutant emissions caps for the area. Future predicted emissions for the area must remain below these caps throughout the 10 year maintenance plan period. The attainment year selected for this purpose is 2005 since it was the year that compliance with the ozone standard was recorded in the area.

Since an actual 2005 emissions inventory for point sources has not yet been completed, the following procedure was used to develop this emissions inventory. The actual 2002 emissions inventory was used as a starting point and then projected to 2005 using the latest versions of the EPA developed and approved Economic Growth Analysis System (EGAS 5.0). However, for the utilities actual NO_X emission values based on CEM data as available have been used. The EGAS 5.0 model produces facility or process (SCC) level emissions growth factors based on national and regional economic models. These models are in turn driven by leading economic indicators such as earnings, production, and employment. The latest version of EGAS, which is in BETA form, was selected for use since it contains more recent national and regional economic forecasts than previous versions of EGAS. It allows for the selection of a specific base year for inclusion in the process to project growth factors. This system employs the following three tiered process to develop growth factors:

(#1) National Economic Tier - National final demand forecasts are developed using the Bureau of Labor Statistics (BLS) data by sector to drive the second step.
(#2) Regional Economic Tier – An economic model (REMI) translates non-fuel related national economic activity into regional, state, and/or area specific economic activity estimates (such as output, value added, and employment) by sector. Fuel-related sectors rely on Census division combustion projections from DOE.
(#3) Growth Factor Tier – Area specific activity projections are translated into emissions growth factors by SIC or SCC codes.

Using the process described above, specific Source Classification Code (SCC) level growth factors for the years 2005, 2011, and 2018 were derived with 2002 as the base year and then applied to the 2002 emissions inventory. Growth factors were also developed with 2005 as the base year applicable to cases for which NO_x emissions are available for the year 2005. An example of the output from the EGAS model is provided in Table 3.2.1-1.

Table 3.2-1
Example Output from the EGAS5.0 Growth Factor Model

SCC	FIPS	2005	2011	20118
10100404	51199	0.483585984	0.4184753	0.262624055
10100501	51199	0.772472203	0.804917872	0.812774181
20400101	51810	0.925970495	1.114782572	1.361614466
30500204	51095	0.971316338	1.03093195	1.136312604
10100202	51550	0.974378943	1.063360214	1.194668055
39000489	51095	1	1	1
30600201	51199	1.001047969	1.03232646	1.077717781
30699999	51710	1.001671791	1.084388375	1.195233345
30600504	51199	1.002924562	1.086594582	1.197665095
40600131	51199	1.012943149	1.044654608	1.079226494
30600801	51199	1.022017121	1.152595997	1.294766068
40400202	51650	1.024238467	1.083624482	1.148266928
30588801	51800	1.032025099	1.141705513	1.271843791
10101201	51740	1.039118648	1.121626854	1.180644512
30101899	51550	1.040368319	1.136613369	1.252796531
40714698	51095	1.04039669	1.138939857	1.255360961
30701399	51093	1.042516589	1.142236948	1.258994937
30100702	51550	1.048369527	1.150581837	1.268192887
30201997	51550	1.048950672	1.145911694	1.263045549
30203299	51710	1.050208926	1.149607778	1.267119169
40588801	51650	1.050662756	1.152226448	1.270005703
30500606	51550	1.055210948	1.162916064	1.261186719
50100506	51095	1.057888389	1.189111829	1.335786223
50200506	51700	1.065449357	1.183582783	1.315103054
30288801	51073	1.067248702	1.174549699	1.294610739
40600238	51199	1.067299604	1.197655797	1.345384002
30201302	51093	1.069949865	1.176066041	1.296282053
50200505	51700	1.070171714	1.194597721	1.322842956
30103001	51550	1.079145074	1.204116225	1.327199697
40500511	51700	1.081935048	1.197697163	1.320124269
40200110	51095	1.085156083	1.262896061	1.45959866
30200907	51095	1.087010026	1.207625747	1.331067681
30400701	51700	1.088971734	1.38006711	1.685637474
30700104	51093	1.100611806	1.27781415	1.480768681
30501402	51095	1.113309503	1.385914564	1.692780018
30800799	51740	1.113620758	1.243225932	1.370307088
40201901	51710	1.117909193	1.327110767	1.620955825

Table 3.2-1				
Example Output from the EGAS5.0 Growth Factor Model				
SCC	FIPS	2005	2011	20118
40201721	51095	1.130254507	1.428963423	1.745360374
40202399	51710	1.134020448	1.410734892	1.723095894
30700808	51650	1.135704875	1.432498574	1.749678135
40201606	51710	1.137973547	1.45216918	1.77370441
40100303	51095	1.144827247	1.439027548	1.757653117
30402210	51740	1.150152922	1.472134709	1.798090458
39999992	51650	1.158547044	1.478971362	1.80644083
30700799	51093	1.171613336	1.501818657	1.834347129
30700598	51093	1.181269646	1.480875492	1.808766842
40202501	51550	1.244137406	1.611324072	1.96809876
10100604	51199	1.288614154	1.723748446	1.798840046

3.2.2. 2011 and 2018 Maintenance Year Emissions Inventories

Future projected maintenance year emissions inventories are also required for purposes of demonstrating continued attainment of the ozone standard. This is done by showing that future emissions in the area will remain at or below the established attainment year emissions caps during a period of more than ten years, known as the maintenance period. For the Hampton Roads area re-designation/maintenance package, an interim projection year of 2011 and a final projection year of 2018 are selected. Selection of these specific years has a bearing on the impact of Phase I and Phase II Clean Air Interstate Rule (CAIR) in the area. Using the same procedure described above for the 2005 attainment year inventory, the EGAS tool was used to develop process level growth factors for the three future projection years. Table 3.2.1-1 also includes growth factors for future years. These factors were then applied to the 2002 inventory to produce the resulting projection year inventories. For utilities for which actual 2005 emissions are available, growth factors are derived for the years 2011 and 2018 in the same manner with 2005 as the base year. For these line items the growth factors are missing in NO_X Table 3.2.2-2 for the year 2005.

The overall result of using this methodology for projecting point source emissions inventories for the years of interest from the baseline 2002/2005 actual emissions inventory is provided in the following tables. In these tables segments that had no emissions during the year 2002 are excluded.

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
Gloucester Jurisdiction									
51-073-00032 40920	**Middle Peninsula Landfill**	50100410	0.0005	1.0579	0.0005	1.1891	0.0006	1.3358	0.0006
		30288801	0.0231	1.0672	0.0246	1.1745	0.0271	1.2946	0.0299
	Total		**0.0236**		**0.0251**		**0.0277**		**0.0305**
51-073-52004 52004	**Middle Peninsula Landfill**	10100501	0.0044	0.7725	0.0034	0.8049	0.0036	0.8128	0.0036
	Total		**0.0044**		**0.0034**		**0.0036**		**0.0036**
Isle of Weight Jurisdiction									

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
51-093-00006 60214	**International Paper Company**	20100101	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		10200401	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
51-093-00006 60214	**International Paper Company**	39000489	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		39000489	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10200401	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		39000489	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10200401	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		30700106	0.0016	1.1006	0.0018	1.2778	0.0021	1.4808	0.0024
		10200202	0.0019	1.0000	0.0019	1.0000	0.0019	1.0000	0.0019
		30700106	0.0028	1.1006	0.0031	1.2778	0.0036	1.4808	0.0041
		30700106	0.0035	1.1006	0.0038	1.2778	0.0044	1.4808	0.0051
		30700105	0.0040	1.1006	0.0044	1.2778	0.0051	1.4808	0.0059
		30700105	0.0043	1.1006	0.0047	1.2778	0.0055	1.4808	0.0063
		10200204	0.0046	1.0000	0.0046	1.0000	0.0046	1.0000	0.0046
		10200202	0.0055	1.0000	0.0055	1.0000	0.0055	1.0000	0.0055
		30700199	0.0061	1.1006	0.0067	1.2778	0.0078	1.4808	0.0090
		30700199	0.0061	1.1006	0.0067	1.2778	0.0078	1.4808	0.0090
		10200204	0.0068	1.0000	0.0068	1.0000	0.0068	1.0000	0.0068
		30700105	0.0095	1.1006	0.0104	1.2778	0.0121	1.4808	0.0140
		30701399	0.0103	1.0425	0.0108	1.1422	0.0118	1.2590	0.0130
		30701399	0.0117	1.0425	0.0122	1.1422	0.0134	1.2590	0.0147
		20100201	0.0330	1.2886	0.0425	1.7237	0.0568	1.7988	0.0593
		30700114	0.0836	1.1006	0.0920	1.2778	0.1068	1.4808	0.1237
		30700104	0.0914	1.1006	0.1006	1.2778	0.1168	1.4808	0.1354
		30700104	0.0988	1.1006	0.1087	1.2778	0.1262	1.4808	0.1463
		10200902	0.1001	1.0000	0.1001	1.0000	0.1001	1.0000	0.1001
		30700104	0.1055	1.1006	0.1161	1.2778	0.1348	1.4808	0.1562
		10200902	0.1111	1.0000	0.1111	1.0000	0.1111	1.0000	0.1111
		49099999	2.5220	1.0404	2.6239	1.1389	2.8724	1.2554	3.1660
	Total		**3.2266**		**3.3809**		**3.7198**		**4.1031**
51-093-00011 60270	**Smithfield Foods Inc**	10500106	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10500106	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30291001	0.0001	1.0672	0.0001	1.1745	0.0001	1.2946	0.0001
		10500106	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200602	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		30291001	0.0003	1.0672	0.0003	1.1745	0.0003	1.2946	0.0003
		30290003	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200602	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200602	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
51-093-00011 60270	**Smithfield Foods Inc**	10200602	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		30291001	0.0007	1.0672	0.0007	1.1745	0.0008	1.2946	0.0009

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		10200602	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		10200602	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		30201302	0.0015	1.0699	0.0016	1.1761	0.0018	1.2963	0.0020
		10200602	0.0016	1.0000	0.0016	1.0000	0.0016	1.0000	0.0016
		10200602	0.0017	1.0000	0.0017	1.0000	0.0017	1.0000	0.0017
		10200602	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		10200602	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		30299998	0.0274	1.0672	0.0292	1.1745	0.0322	1.2946	0.0355
	Total		**0.0410**		**0.0430**		**0.0462**		**0.0498**
51-093-00018 60171	**Nevamar Company LLC**	10200502	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200905	0.0045	1.0000	0.0045	1.0000	0.0045	1.0000	0.0045
		30703096	0.0845	1.1357	0.0959	1.4325	0.1210	1.7497	0.1478
		30700799	0.1049	1.1716	0.1229	1.5018	0.1576	1.8343	0.1924
		30700799	0.1498	1.1716	0.1755	1.5018	0.2249	1.8343	0.2748
		30700799	0.1643	1.1716	0.1925	1.5018	0.2467	1.8343	0.3014
		30703096	0.4984	1.1357	0.5660	1.4325	0.7139	1.7497	0.8720
	Total		**1.0063**		**1.1573**		**1.4686**		**1.7928**
51-093-00038 61342	**Southern Structural Steel, Incorporated**	40100398	0.0021	1.1448	0.0025	1.4390	0.0031	1.7577	0.0038
		40200610	0.0318	1.0852	0.0345	1.2629	0.0401	1.4596	0.0464
	Total		**0.0339**		**0.0370**		**0.0432**		**0.0502**
51-093-00057 61448	**International Paper - Franklin Lumber Mill**	30700598	0.3970	1.1813	0.4690	1.4809	0.5879	1.8088	0.7181
	Total		**0.3970**		**0.4690**		**0.5879**		**0.7181**
James City Jurisdiction									
51-095-00008 60065	**Ball Metal Beverage Container Corporation**	10200602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		39000689	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		39000689	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		39000689	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		39000689	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		20200102	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		40201799	0.0121	1.1303	0.0137	1.4290	0.0173	1.7454	0.0211
		40201799	0.0177	1.1303	0.0201	1.4290	0.0254	1.7454	0.0310
		40201721	0.0564	1.1303	0.0637	1.4290	0.0806	1.7454	0.0984
		40201728	0.2235	1.1303	0.2526	1.4290	0.3194	1.7454	0.3901
		40201722	0.6876	1.1303	0.7772	1.4290	0.9826	1.7454	1.2001
	Total		**0.9998**		**1.1297**		**1.4276**		**1.7431**
51-095-00010 60152	**Anheuser-Busch Incorporated**	30200967	0.0000	1.0870	0.0000	1.2076	0.0000	1.3311	0.0000
		40714698	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		10200401	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		10200401	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200401	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200401	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30200965	0.0000	1.0870	0.0000	1.2076	0.0001	1.3311	0.0001
		30200911	0.0003	1.0870	0.0003	1.2076	0.0003	1.3311	0.0004
		30200911	0.0004	1.0870	0.0005	1.2076	0.0005	1.3311	0.0006
		39000689	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		39000689	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		30200955	0.0005	1.0870	0.0006	1.2076	0.0006	1.3311	0.0007
		30200930	0.0005	1.0870	0.0006	1.2076	0.0006	1.3311	0.0007
		30200930	0.0005	1.0870	0.0006	1.2076	0.0006	1.3311	0.0007
		39000689	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		30200930	0.0008	1.0870	0.0009	1.2076	0.0010	1.3311	0.0011
		30200967	0.0013	1.0870	0.0014	1.2076	0.0016	1.3311	0.0017
		10200602	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		10200602	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		10200602	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		10200602	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		40100303	0.0027	1.1448	0.0031	1.4390	0.0039	1.7577	0.0047
		10200602	0.0030	1.0000	0.0030	1.0000	0.0030	1.0000	0.0030
		30200967	0.0032	1.0870	0.0035	1.2076	0.0039	1.3311	0.0043
		30200911	0.0034	1.0870	0.0037	1.2076	0.0041	1.3311	0.0045
		30200911	0.0048	1.0870	0.0052	1.2076	0.0058	1.3311	0.0064
		30200963	0.0058	1.0870	0.0063	1.2076	0.0070	1.3311	0.0077
		30200911	0.0069	1.0870	0.0075	1.2076	0.0083	1.3311	0.0091
		30200911	0.0069	1.0870	0.0075	1.2076	0.0083	1.3311	0.0092
		40200110	0.0076	1.0852	0.0083	1.2629	0.0096	1.4596	0.0111
		30200911	0.0107	1.0870	0.0116	1.2076	0.0129	1.3311	0.0142
		30200967	0.0129	1.0870	0.0140	1.2076	0.0155	1.3311	0.0171
		30200907	0.0451	1.0870	0.0490	1.2076	0.0544	1.3311	0.0600
		30200911	0.0451	1.0870	0.0490	1.2076	0.0544	1.3311	0.0600
		30200953	0.0717	1.0870	0.0779	1.2076	0.0866	1.3311	0.0954
		30200951	0.0992	1.0870	0.1078	1.2076	0.1198	1.3311	0.1320
		30200908	0.1578	1.0870	0.1715	1.2076	0.1905	1.3311	0.2100
	Total		**0.5024**		**0.5450**		**0.6048**		**0.6661**

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
51-095-00022 60923	Owens-Brockway Glass Container	39000699	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		39000699	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		30501402	0.0244	1.1133	0.0272	1.3859	0.0338	1.6928	0.0413
		30501402	0.0259	1.1133	0.0288	1.3859	0.0359	1.6928	0.0438
	Total		**0.0510**		**0.0567**		**0.0704**		**0.0858**
51-095-00023 60355	HRSD Williamsburg Sewage Treatment Plant	20200401	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		50100701	0.0132	1.0579	0.0140	1.1891	0.0157	1.3358	0.0177
		50100506	0.0168	1.0579	0.0178	1.1891	0.0200	1.3358	0.0225
	Total		**0.0312**		**0.0329**		**0.0369**		**0.0413**
51-095-00024 60611	Branscome Inc - Lee Hall	30500208	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30500206	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30500205	0.0088	0.9713	0.0085	1.0309	0.0091	1.1363	0.0100
		30500205	0.0217	0.9713	0.0211	1.0309	0.0224	1.1363	0.0247
		30500204	0.0633	0.9713	0.0615	1.0309	0.0653	1.1363	0.0720
	Total		**0.0941**		**0.0914**		**0.0970**		**0.1069**
York Jurisdiction									
51-199-00001 60137	Dominion - Yorktown Power Station	10100501	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		10100501	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		10100501	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		50300506	0.0001	1.0852	0.0001	1.2629	0.0001	1.4596	0.0001
		10100604	0.0001	1.2886	0.0001	1.7237	0.0002	1.7988	0.0002
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10100701	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		10100604	0.0071	1.2886	0.0092	1.7237	0.0123	1.7988	0.0128
		10100212	0.0347	0.9744	0.0338	1.0634	0.0369	1.1947	0.0415
		10100212	0.0384	0.9744	0.0374	1.0634	0.0408	1.1947	0.0459
		10100404	0.2150	0.4836	0.1040	0.4185	0.0900	0.2626	0.0565
	Total		**0.2981**		**0.1872**		**0.1829**		**0.1595**
51-199-00002 60301	US Navy Naval Weapons Station Yorktown	40301007	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301021	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301021	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301001	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301021	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301019	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301115	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40301019	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		10200602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
51-199-00002	US Navy Naval	10200504	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
60301	**Weapons Station Yorktown**	10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		40301001	0.0002	1.0029	0.0002	1.0866	0.0002	1.1977	0.0002
		40200110	0.0002	1.0852	0.0002	1.2629	0.0002	1.4596	0.0003
		20200401	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		20200301	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
		20200102	0.0016	1.0000	0.0016	1.0000	0.0016	1.0000	0.0016
		40301007	0.0018	1.0029	0.0018	1.0866	0.0019	1.1977	0.0021
		40200110	0.0051	1.0852	0.0056	1.2629	0.0065	1.4596	0.0075
		20200102	0.0184	1.0000	0.0184	1.0000	0.0184	1.0000	0.0184
		40100398	0.0185	1.1448	0.0212	1.4390	0.0266	1.7577	0.0325
	Total		**0.0487**		**0.0518**		**0.0584**		**0.0655**
51-199-00004 60116	**Giant Yorktown Refinery**	30600904	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40301118	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		40600135	0.0004	1.0029	0.0004	1.0866	0.0005	1.1977	0.0005
		30190004	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		40301099	0.0005	1.0029	0.0005	1.0866	0.0005	1.1977	0.0006
		40688802	0.0007	1.0029	0.0007	1.0866	0.0008	1.1977	0.0009
		10200701	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		40301107	0.0017	1.0029	0.0017	1.0866	0.0019	1.1977	0.0020
		10200701	0.0027	1.0000	0.0027	1.0000	0.0027	1.0000	0.0027
		40301019	0.0031	1.0029	0.0031	1.0866	0.0033	1.1977	0.0037
		40688802	0.0032	1.0029	0.0032	1.0866	0.0035	1.1977	0.0038
		40301097	0.0049	1.0029	0.0049	1.0866	0.0053	1.1977	0.0059
		30600104	0.0050	1.0000	0.0050	1.0000	0.0050	1.0000	0.0050
		40600246	0.0072	1.0673	0.0077	1.1977	0.0086	1.3454	0.0097
		40301021	0.0074	1.0029	0.0075	1.0866	0.0081	1.1977	0.0089
		40688802	0.0075	1.0029	0.0075	1.0866	0.0082	1.1977	0.0090
		40600131	0.0076	1.0129	0.0077	1.0447	0.0079	1.0792	0.0082
		39001299	0.0082	1.0000	0.0082	1.0000	0.0082	1.0000	0.0082
		30600104	0.0091	1.0000	0.0091	1.0000	0.0091	1.0000	0.0091
		10200701	0.0104	1.0000	0.0104	1.0000	0.0104	1.0000	0.0104
		40301097	0.0122	1.0029	0.0123	1.0866	0.0133	1.1977	0.0146
		30600104	0.0148	1.0000	0.0148	1.0000	0.0148	1.0000	0.0148
		40301117	0.0155	1.0029	0.0155	1.0866	0.0168	1.1977	0.0185
		40688802	0.0178	1.0029	0.0179	1.0866	0.0194	1.1977	0.0214
		40301099	0.0179	1.0029	0.0180	1.0866	0.0195	1.1977	0.0215
		40301111	0.0190	1.0029	0.0190	1.0866	0.0206	1.1977	0.0227
		40301110	0.0215	1.0029	0.0216	1.0866	0.0234	1.1977	0.0258
		40688802	0.0217	1.0029	0.0217	1.0866	0.0236	1.1977	0.0260
51-199-00004 60116	**Giant Yorktown Refinery**	30600803	0.0514	1.0029	0.0516	1.0866	0.0559	1.1977	0.0616
		30600804	0.1154	1.0029	0.1157	1.0866	0.1254	1.1977	0.1382

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		30600904	0.1360	1.0000	0.1360	1.0000	0.1360	1.0000	0.1360
		40301102	0.1631	1.0029	0.1636	1.0866	0.1772	1.1977	0.1953
		30600805	0.2094	1.0029	0.2100	1.0866	0.2275	1.1977	0.2507
		30600802	0.2461	1.0029	0.2468	1.0866	0.2674	1.1977	0.2947
		30600801	0.2778	1.0220	0.2839	1.1526	0.3201	1.2948	0.3596
		40600238	2.3220	1.0673	2.4783	1.1977	2.7810	1.3454	3.1240
	Total		**3.7426**		**3.9083**		**4.3271**		**4.8155**
Chesapeake Jurisdiction									
51-550-00004 60077	**Lafarge Calcium Aluminates Incorporated**	30500606	0.0007	1.0552	0.0008	1.1629	0.0008	1.2612	0.0009
	Total		**0.0007**		**0.0008**		**0.0008**		**0.0009**
51-550-00013 60016	**Center Terminal Company - Norfolk**	40600135	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		30107002	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0002	1.0404	0.0003	1.1389	0.0003	1.2554	0.0003
		40600251	0.0004	1.0673	0.0004	1.1977	0.0005	1.3454	0.0005
		30107002	0.0013	1.0404	0.0014	1.1389	0.0015	1.2554	0.0017
		30107002	0.0034	1.0404	0.0036	1.1389	0.0039	1.2554	0.0043
		40600131	0.0051	1.0129	0.0052	1.0447	0.0054	1.0792	0.0055
		30107002	0.0060	1.0404	0.0062	1.1389	0.0068	1.2554	0.0075
		30107002	0.0060	1.0404	0.0062	1.1389	0.0068	1.2554	0.0075
		30107002	0.0085	1.0404	0.0088	1.1389	0.0096	1.2554	0.0106
		40600131	0.0131	1.0129	0.0132	1.0447	0.0136	1.0792	0.0141
	Total		**0.0442**		**0.0455**		**0.0486**		**0.0523**
51-550-00015 60039	**Chesapeake Grain Company**	30500208	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
	Total		**0.0000**		**0.0000**		**0.0000**		**0.0000**
51-550-00016 60050	**Kinder Morgan/Elizabeth River Terminals, LLC**	20200102	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
	Total		**0.0003**		**0.0003**		**0.0003**		**0.0003**
51-550-00017 60069	**Allied Terminals Incorporated - Chesapeake**	30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0005	1.0404	0.0005	1.1389	0.0005	1.2554	0.0006

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
51-550-00017 60069	**Allied Terminals Incorporated - Chesapeake**	40600141	0.0007	1.0129	0.0007	1.0447	0.0007	1.0792	0.0007
		30107002	0.0010	1.0404	0.0010	1.1389	0.0011	1.2554	0.0012
		30107002	0.0011	1.0404	0.0012	1.1389	0.0013	1.2554	0.0014
		30107002	0.0014	1.0404	0.0014	1.1389	0.0016	1.2554	0.0017
		30107002	0.0019	1.0404	0.0019	1.1389	0.0021	1.2554	0.0023
		30107002	0.0027	1.0404	0.0029	1.1389	0.0031	1.2554	0.0034
		30107002	0.0031	1.0404	0.0033	1.1389	0.0036	1.2554	0.0039
		30107002	0.0084	1.0404	0.0087	1.1389	0.0095	1.2554	0.0105
		40600141	0.0099	1.0129	0.0100	1.0447	0.0103	1.0792	0.0107
		30107002	0.0163	1.0404	0.0169	1.1389	0.0185	1.2554	0.0204
		30107002	0.0180	1.0404	0.0187	1.1389	0.0205	1.2554	0.0226
	Total		**0.0650**		**0.0673**		**0.0730**		**0.0797**
51-550-00023 60149	**IMTT Chesapeake**	30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0007	1.0404	0.0007	1.1389	0.0008	1.2554	0.0009
		40400199	0.0011	1.0029	0.0011	1.0866	0.0012	1.1977	0.0013
		10200602	0.0055	1.0000	0.0055	1.0000	0.0055	1.0000	0.0055
		30107002	0.0156	1.0404	0.0163	1.1389	0.0178	1.2554	0.0196
	Total		**0.0230**		**0.0237**		**0.0254**		**0.0274**
51-550-00025 60161	**Citgo Petroleum Chesapeake Terminal**	30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0015	1.0404	0.0015	1.1389	0.0017	1.2554	0.0019
		30107002	0.0016	1.0404	0.0016	1.1389	0.0018	1.2554	0.0020
		30107002	0.0022	1.0404	0.0023	1.1389	0.0025	1.2554	0.0027
		30107002	0.0046	1.0404	0.0048	1.1389	0.0053	1.2554	0.0058
		30107002	0.0152	1.0404	0.0159	1.1389	0.0174	1.2554	0.0191
		30107002	0.0174	1.0404	0.0181	1.1389	0.0199	1.2554	0.0219
		30107002	0.0199	1.0404	0.0207	1.1389	0.0226	1.2554	0.0250
		40400153	0.0471	1.0029	0.0473	1.0866	0.0512	1.1977	0.0564
	Total		**0.1097**		**0.1123**		**0.1224**		**0.1349**
51-550-00026 60163	**Dominion - Chesapeake**	20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		40301021	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
51-550-00026 60163	**Dominion - Chesapeake**	10100501	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		10100501	0.0001	0.7725	0.0001	0.8049	0.0001	0.8128	0.0001
		10100501	0.0001	0.7725	0.0001	0.8049	0.0001	0.8128	0.0001
		10100501	0.0001	0.7725	0.0001	0.8049	0.0001	0.8128	0.0001
		40301019	0.0008	1.0029	0.0008	1.0866	0.0009	1.1977	0.0010
		10100212	0.0299	0.9744	0.0291	1.0634	0.0317	1.0636	0.0318
		10100212	0.0305	0.9744	0.0297	1.0634	0.0324	1.1947	0.0364
		10100202	0.0363	0.9744	0.0354	1.0634	0.0386	1.0636	0.0386
		10100212	0.0526	0.9744	0.0513	1.0634	0.0559	1.0636	0.0560
	Total		**0.1504**		**0.1465**		**0.1599**		**0.1640**
51-550-00028 60179	**Apex Oil Company - Chesapeake Terminal Division**	10200504	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30107002	0.0004	1.0404	0.0005	1.1389	0.0005	1.2554	0.0005
		10200502	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		30107002	0.0005	1.0404	0.0005	1.1389	0.0005	1.2554	0.0006
		40600141	0.0016	1.0129	0.0016	1.0447	0.0016	1.0792	0.0017
		30107002	0.0062	1.0404	0.0064	1.1389	0.0070	1.2554	0.0077
		30107002	0.0152	1.0404	0.0158	1.1389	0.0173	1.2554	0.0191
		30107002	0.0152	1.0404	0.0158	1.1389	0.0173	1.2554	0.0191
	Total		**0.0395**		**0.0410**		**0.0448**		**0.0492**
51-550-00035 60242	**Transmontaigne Product Services**	30107002	0.0004	1.0404	0.0004	1.1389	0.0004	1.2554	0.0004
		30107002	0.0012	1.0404	0.0013	1.1389	0.0014	1.2554	0.0015
		30100702	0.0053	1.0484	0.0056	1.1506	0.0061	1.2682	0.0067
		30100702	0.0062	1.0484	0.0065	1.1506	0.0071	1.2682	0.0078
		30100702	0.0067	1.0484	0.0071	1.1506	0.0077	1.2682	0.0085
		30100702	0.0074	1.0484	0.0078	1.1506	0.0086	1.2682	0.0094
		30107002	0.0082	1.0404	0.0085	1.1389	0.0093	1.2554	0.0102
		40600141	0.0092	1.0129	0.0093	1.0447	0.0096	1.0792	0.0100
		40600141	0.0156	1.0129	0.0158	1.0447	0.0163	1.0792	0.0169
	Total		**0.0602**		**0.0622**		**0.0666**		**0.0716**
51-550-00044 60127	**Royster-Clark Incorporated - Chesapeake Plant**	10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30103001	0.0004	1.0791	0.0004	1.2041	0.0005	1.3272	0.0005
	Total		**0.0005**		**0.0006**		**0.0006**		**0.0007**
51-550-00047 60274	**ExxonMobil Oil Corporation - Chesapeake**	30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0004	1.0404	0.0004	1.1389	0.0004	1.2554	0.0005
		30107002	0.0004	1.0404	0.0005	1.1389	0.0005	1.2554	0.0006
		30107002	0.0011	1.0404	0.0012	1.1389	0.0013	1.2554	0.0014
		30107002	0.0020	1.0404	0.0021	1.1389	0.0023	1.2554	0.0025
		30107002	0.0042	1.0404	0.0044	1.1389	0.0048	1.2554	0.0053

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
51-550-00047 60274	**ExxonMobil Oil Corporation - Chesapeake**	30107002	0.0079	1.0404	0.0082	1.1389	0.0089	1.2554	0.0099
		30107002	0.0082	1.0404	0.0086	1.1389	0.0094	1.2554	0.0103
		30107002	0.0179	1.0404	0.0186	1.1389	0.0204	1.2554	0.0225
		30107002	0.0192	1.0404	0.0200	1.1389	0.0219	1.2554	0.0241
		30107002	0.0202	1.0404	0.0210	1.1389	0.0230	1.2554	0.0254
		40600131	0.0260	1.0129	0.0263	1.0447	0.0271	1.0792	0.0280
		40600131	0.0554	1.0129	0.0561	1.0447	0.0579	1.0792	0.0598
	Total		**0.1630**		**0.1674**		**0.1780**		**0.1903**
51-550-00052 60342	**NOVA Chemicals Incorporated**	10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200401	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200402	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30101899	0.0000	1.0404	0.0000	1.1366	0.0000	1.2528	0.0000
		30101899	0.0000	1.0404	0.0000	1.1366	0.0000	1.2528	0.0000
		40703614	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		30101899	0.0001	1.0404	0.0001	1.1366	0.0001	1.2528	0.0002
		10200602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30101899	0.0002	1.0404	0.0002	1.1366	0.0002	1.2528	0.0003
		10200602	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200602	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		30101899	0.0006	1.0404	0.0007	1.1366	0.0007	1.2528	0.0008
		20200102	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010
		30101899	0.0023	1.0404	0.0024	1.1366	0.0027	1.2528	0.0029
		30101899	0.0030	1.0404	0.0031	1.1366	0.0034	1.2528	0.0038
		30101899	0.0055	1.0404	0.0057	1.1366	0.0062	1.2528	0.0069
	Total		**0.0139**		**0.0144**		**0.0155**		**0.0169**
51-550-00056 60851	**Chesapeake Hardwood Products Inc**	40201001	0.0013	1.0000	0.0013	1.0000	0.0013	1.0000	0.0013
		40200901	0.2556	1.0852	0.2774	1.2629	0.3228	1.4596	0.3731
	Total		**0.2569**		**0.2787**		**0.3241**		**0.3744**
51-550-00092 60920	**Amerada Hess Corporation - Chesapeake**	30107002	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		30107002	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		30107002	0.0001	1.0404	0.0001	1.1389	0.0001	1.2554	0.0001
		10200401	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
51-550-00092	**Amerada Hess**	30107002	0.0019	1.0404	0.0020	1.1389	0.0022	1.2554	0.0024

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
60920	**Corporation - Chesapeake**	30107002	0.0060	1.0404	0.0062	1.1389	0.0068	1.2554	0.0075
		30107002	0.0060	1.0404	0.0063	1.1389	0.0069	1.2554	0.0076
		30107002	0.0124	1.0404	0.0129	1.1389	0.0141	1.2554	0.0155
		30107002	0.0126	1.0404	0.0131	1.1389	0.0143	1.2554	0.0158
		30107002	0.0802	1.0404	0.0835	1.1389	0.0914	1.2554	0.1007
	Total		**0.1198**		**0.1246**		**0.1364**		**0.1503**
51-550-00138 61026	**Dave's Cabinet**	40202501	0.0462	1.2441	0.0575	1.6113	0.0744	1.9681	0.0909
	Total		**0.0462**		**0.0575**		**0.0744**		**0.0909**
51-550-00161 61108	**Commonwealth Atlantic Limited Partnership-Chesapeake**	20100109	0.0002	0.7725	0.0002	0.8049	0.0002	0.8128	0.0002
		20100109	0.0002	0.7725	0.0002	0.8049	0.0002	0.8128	0.0002
		20100109	0.0002	0.7725	0.0002	0.8049	0.0002	0.8128	0.0002
		20100201	0.0159	1.2886	0.0204	1.7237	0.0273	1.7988	0.0285
		20100201	0.0159	1.2886	0.0204	1.7237	0.0273	1.7988	0.0285
		20100201	0.0159	1.2886	0.0204	1.7237	0.0273	1.7988	0.0285
	Total		**0.0482**		**0.0618**		**0.0826**		**0.0861**
51-550-00182 61254	**Port Allen Marine Services**	40202510	0.0486	1.2441	0.0604	1.6113	0.0783	1.9681	0.0956
	Total		**0.0486**		**0.0604**		**0.0783**		**0.0956**
Hampton Jurisdiction									
51-650-00006 60051	**US NASA - Langley Research Center**	40600139	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40600140	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40600140	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40600134	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40600134	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		10200602	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300503	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		39990003	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300503	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		40200101	0.0002	1.0852	0.0003	1.2629	0.0003	1.4596	0.0003
		10300601	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		20200102	0.0013	1.0000	0.0013	1.0000	0.0013	1.0000	0.0013
51-650-00006 60051	**US NASA - Langley**	10300601	0.0029	1.0000	0.0029	1.0000	0.0029	1.0000	0.0029
		40600306	0.0033	1.0129	0.0034	1.0447	0.0035	1.0792	0.0036

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
	Research Center	10300601	0.0051	1.0000	0.0051	1.0000	0.0051	1.0000	0.0051
			0.0138		**0.0138**		**0.0140**		**0.0141**
51-650-00007 60059	US Air Force Base Langley	40600135	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40701614	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		40701613	0.0000	1.0404	0.0000	1.1389	0.0000	1.2554	0.0000
		40600131	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40400202	0.0004	1.0242	0.0004	1.0836	0.0004	1.1484	0.0004
		40600134	0.0007	1.0029	0.0007	1.0866	0.0008	1.1977	0.0009
		20300101	0.0015	1.0000	0.0015	1.0000	0.0015	1.0000	0.0015
		40400205	0.0017	1.0129	0.0018	1.0447	0.0018	1.0792	0.0019
		40600139	0.0018	1.0029	0.0018	1.0866	0.0019	1.1977	0.0021
		39999993	0.0029	1.1585	0.0034	1.4790	0.0043	1.8064	0.0052
		40299998	0.0192	1.0852	0.0209	1.2629	0.0243	1.4596	0.0281
	Total		**0.0284**		**0.0306**		**0.0352**		**0.0403**
51-650-00010 60106	Hampton University	10300903	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200501	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10300208	0.0055	1.0000	0.0055	1.0000	0.0055	1.0000	0.0055
	Total		**0.0063**		**0.0063**		**0.0063**		**0.0063**
51-650-00011 60141	US Department of Veterans Affairs Medical Ctr	10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300602	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		30700808	0.0034	1.1357	0.0039	1.4325	0.0049	1.7497	0.0060
	Total		**0.0039**		**0.0044**		**0.0054**		**0.0065**
51-650-00061 61019	Hampton/NASA Steam Plant	50100102	0.0051	1.0579	0.0053	1.1891	0.0060	1.3358	0.0067
		50100102	0.0059	1.0579	0.0062	1.1891	0.0070	1.3358	0.0078
	Total		**0.0109**		**0.0116**		**0.0130**		**0.0146**
51-650-00069 60636	Howmet Castings, an Alcoa Company	49099999	0.0010	1.0404	0.0010	1.1389	0.0011	1.2554	0.0012
		10200603	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		49099999	0.0053	1.0404	0.0055	1.1389	0.0061	1.2554	0.0067
		49099999	0.0135	1.0404	0.0140	1.1389	0.0153	1.2554	0.0169
	Total		**0.0221**		**0.0229**		**0.0248**		**0.0271**
51-650-00093 61291	Bethel Landfill	10201402	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50200601	0.0007	1.0654	0.0008	1.1836	0.0009	1.3151	0.0010
		50410563	0.0173	1.0579	0.0183	1.1891	0.0206	1.3358	0.0231
	Total		**0.0181**		**0.0191**		**0.0215**		**0.0241**
Newport News Jurisdiction									

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
51-700-00002 60333	**US Army Fort Eustis (Army Transport Center)**	10300501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		20200102	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		20200102	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		40400402	0.0008	1.0129	0.0009	1.0447	0.0009	1.0792	0.0009
		10300602	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		20400111	0.0033	0.9260	0.0031	1.1148	0.0037	1.3616	0.0045
		20200252	0.0049	1.0000	0.0049	1.0000	0.0049	1.0000	0.0049
		40299998	0.0127	1.0852	0.0138	1.2629	0.0160	1.4596	0.0185
		50200602	0.0137	1.0654	0.0146	1.1836	0.0163	1.3151	0.0181
	Total		**0.0386**		**0.0404**		**0.0449**		**0.0501**
51-700-00013 60153	**Newport News Shipbuilding**	10200603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40600306	0.0000	1.0129	0.0000	1.0447	0.0000	1.0792	0.0000
		40600306	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		40600402	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600307	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600402	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600307	0.0002	1.0129	0.0002	1.0447	0.0002	1.0792	0.0002
		40200901	0.0003	1.0852	0.0003	1.2629	0.0004	1.4596	0.0004
		39001089	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		10200401	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10200401	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10200401	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10200401	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		40600401	0.0013	1.0129	0.0014	1.0447	0.0014	1.0792	0.0015
		30400701	0.0015	1.0890	0.0016	1.3801	0.0021	1.6856	0.0025
		40600401	0.0020	1.0129	0.0020	1.0447	0.0021	1.0792	0.0021
		40200901	0.0068	1.0852	0.0074	1.2629	0.0086	1.4596	0.0100
		20200401	0.0080	1.0000	0.0080	1.0000	0.0080	1.0000	0.0080
		10200603	0.0095	1.0000	0.0095	1.0000	0.0095	1.0000	0.0095
		40200901	0.0240	1.0852	0.0260	1.2629	0.0303	1.4596	0.0350
		40200910	0.0280	1.0852	0.0304	1.2629	0.0354	1.4596	0.0409
		40200901	0.0316	1.0852	0.0342	1.2629	0.0399	1.4596	0.0461
		40200901	0.0408	1.0852	0.0443	1.2629	0.0515	1.4596	0.0596
		40200701	0.0490	1.0852	0.0531	1.2629	0.0618	1.4596	0.0715
51-700-00013 60153	**Newport News Shipbuilding**	40200910	0.0657	1.0852	0.0713	1.2629	0.0830	1.4596	0.0959
		40200901	0.1541	1.0852	0.1672	1.2629	0.1946	1.4596	0.2250

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		40200901	0.2289	1.0852	0.2483	1.2629	0.2890	1.4596	0.3340
	Total		**0.6565**		**0.7102**		**0.8226**		**0.9470**
51-700-00019 60208	**Mica Company of Canada Inc**	10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		40200918	0.0008	1.0852	0.0009	1.2629	0.0010	1.4596	0.0011
		40200910	0.0031	1.0852	0.0034	1.2629	0.0040	1.4596	0.0046
		40200922	0.2004	1.0852	0.2175	1.2629	0.2531	1.4596	0.2925
		40200917	0.2902	1.0852	0.3149	1.2629	0.3665	1.4596	0.4236
	Total		**0.4946**		**0.5367**		**0.6246**		**0.7219**
51-700-00055 60476	**Siemens VDO Automotive Corporation**	40100399	0.0218	1.1448	0.0250	1.4390	0.0314	1.7577	0.0384
		40100399	0.1418	1.1448	0.1623	1.4390	0.2041	1.7577	0.2492
	Total		**0.1636**		**0.1873**		**0.2355**		**0.2876**
51-700-00066 60913	**Shorewood Packaging Corporation**	10200603	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		40500511	0.0009	1.0819	0.0010	1.1977	0.0011	1.3201	0.0012
		40500511	0.0010	1.0819	0.0011	1.1977	0.0013	1.3201	0.0014
		40500511	0.0176	1.0819	0.0190	1.1977	0.0210	1.3201	0.0232
		40500511	0.1143	1.0819	0.1236	1.1977	0.1369	1.3201	0.1509
	Total		**0.1343**		**0.1453**		**0.1607**		**0.1771**
51-700-00068 60351	**HRSD Boat Harbor Sewage Treatment Plant**	20200102	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		20200401	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		20200401	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		50100701	0.0078	1.0579	0.0083	1.1891	0.0093	1.3358	0.0105
		50200506	0.0176	1.0654	0.0187	1.1836	0.0208	1.3151	0.0231
	Total		**0.0305**		**0.0321**		**0.0352**		**0.0386**
51-700-00089 61078	**Basic Construction - Newport News**	30500206	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		30500201	0.0087	0.9713	0.0084	1.0309	0.0090	1.1363	0.0099
	Total		**0.0091**		**0.0088**		**0.0093**		**0.0103**
51-700-00091 61085	**Kinyo Virginia Incorporated**	10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30101894	0.0002	1.0404	0.0002	1.1366	0.0002	1.2528	0.0002
		30101894	0.0003	1.0404	0.0003	1.1366	0.0003	1.2528	0.0003
		10200602	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		30188801	0.0307	1.0484	0.0321	1.1506	0.0353	1.2682	0.0389
		30101894	0.0448	1.0404	0.0466	1.1366	0.0509	1.2528	0.0561
		30101894	0.1181	1.0404	0.1228	1.1366	0.1342	1.2528	0.1479
	Total		**0.1946**		**0.2027**		**0.2215**		**0.2441**

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
Norfolk Jurisdiction									
51-710-00006 60246	**Norfolk Shipbuilding and Drydock - Berkley**	39000599	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200401	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200401	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200401	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		20200102	0.0133	1.0000	0.0133	1.0000	0.0133	1.0000	0.0133
		30699999	0.0277	1.0017	0.0278	1.0844	0.0301	1.1952	0.0332
		40200210	0.1278	1.0852	0.1387	1.2629	0.1614	1.4596	0.1865
	Total		**0.1691**		**0.1800**		**0.2050**		**0.2332**
51-710-00009 60268	**Ford Motor Company Norfolk Plant**	40100299	0.0012	1.1448	0.0013	1.4390	0.0017	1.7577	0.0020
		40600306	0.0012	1.0129	0.0012	1.0447	0.0013	1.0792	0.0013
		40600402	0.0028	1.0129	0.0029	1.0447	0.0029	1.0792	0.0030
		40600307	0.0040	1.0129	0.0041	1.0447	0.0042	1.0792	0.0043
		39000689	0.0084	1.0000	0.0084	1.0000	0.0084	1.0000	0.0084
		40600401	0.0221	1.0129	0.0224	1.0447	0.0231	1.0792	0.0239
		40201606	2.4200	1.1380	2.7539	1.4522	3.5142	1.7737	4.2924
	Total		**2.4598**		**2.7942**		**3.5559**		**4.3354**
51-710-00028 60108	**Colonnas Shipyard Pescara Creek To Railway 4**	40200610	0.0010	1.0852	0.0011	1.2629	0.0012	1.4596	0.0014
		40200110	0.0940	1.0852	0.1020	1.2629	0.1187	1.4596	0.1372
	Total		**0.0950**		**0.1031**		**0.1200**		**0.1387**
51-710-00034 60134	**Metro Machine Corporation**	10200602	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200602	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		40202501	0.1305	1.2441	0.1624	1.6113	0.2103	1.9681	0.2568
	Total		**0.1309**		**0.1628**		**0.2107**		**0.2572**
51-710-00042 60164	**Sentara Norfolk General Hospital**	10300401	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300401	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300602	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10300401	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10300602	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10300602	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		20200401	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
	Total		**0.0034**		**0.0034**		**0.0034**		**0.0034**
51-710-00068 60234	**U S Gypsum Co**	39000689	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		39000689	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		39000689	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
	Total		**0.0002**		**0.0002**		**0.0002**		**0.0002**
51-710-00113 60750	**J H Miles & Company**	10200504	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
	Incorporated	10200504	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
	Total		**0.0001**		**0.0001**		**0.0001**		**0.0001**
51-710-00194 60941	**US Navy Norfolk Naval Base-Sewells Point**	10200401	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		39999992	0.0000	1.1585	0.0000	1.4790	0.0000	1.8064	0.0000
		39999992	0.0000	1.1585	0.0000	1.4790	0.0000	1.8064	0.0000
		10200402	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40200901	0.0000	1.0852	0.0000	1.2629	0.0000	1.4596	0.0000
		10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40301016	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		40301019	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200502	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		39999992	0.0002	1.1585	0.0002	1.4790	0.0003	1.8064	0.0004
		39999992	0.0003	1.1585	0.0003	1.4790	0.0004	1.8064	0.0005
		39999992	0.0003	1.1585	0.0003	1.4790	0.0004	1.8064	0.0005
		10200501	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10200404	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		20200401	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		40202399	0.0009	1.1340	0.0010	1.4107	0.0013	1.7231	0.0015
		10200601	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010
		39999992	0.0011	1.1585	0.0013	1.4790	0.0016	1.8064	0.0020
		10200404	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		10200404	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		10200404	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		10200601	0.0013	1.0000	0.0013	1.0000	0.0013	1.0000	0.0013
		10200601	0.0015	1.0000	0.0015	1.0000	0.0015	1.0000	0.0015
		20100102	0.0015	0.7725	0.0011	0.8049	0.0012	0.8128	0.0012
		10200601	0.0050	1.0000	0.0050	1.0000	0.0050	1.0000	0.0050
		10200601	0.0058	1.0000	0.0058	1.0000	0.0058	1.0000	0.0058
		10200601	0.0080	1.0000	0.0080	1.0000	0.0080	1.0000	0.0080
		40600403	0.0102	1.0129	0.0103	1.0447	0.0107	1.0792	0.0110
		40600403	0.0621	1.0129	0.0629	1.0447	0.0649	1.0792	0.0670
		40200110	0.1977	1.0852	0.2145	1.2629	0.2496	1.4596	0.2885
	Total		**0.3027**		**0.3206**		**0.3589**		**0.4012**
51-710-00196 60349	**HRSD Army Base Sewage Treatment Plant**	20100101	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20200102	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50200506	0.0110	1.0654	0.0117	1.1836	0.0130	1.3151	0.0144

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		50100701	0.0117	1.0579	0.0124	1.1891	0.0139	1.3358	0.0157
	Total		**0.0227**		**0.0241**		**0.0269**		**0.0301**
51-710-00197 60350	**HRSD Virginia Initiative Plant**	20100102	0.0017	0.7725	0.0013	0.8049	0.0014	0.8128	0.0014
		50200506	0.0180	1.0654	0.0192	1.1836	0.0213	1.3151	0.0237
		50100701	0.0289	1.0579	0.0306	1.1891	0.0344	1.3358	0.0387
	Total		**0.0487**		**0.0511**		**0.0571**		**0.0637**
51-710-00219 61038	**American Waste Industries, Incorporated**	10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		50200505	0.0015	1.0702	0.0016	1.1946	0.0018	1.3228	0.0020
		50200505	0.0016	1.0702	0.0017	1.1946	0.0019	1.3228	0.0021
	Total		**0.0032**		**0.0034**		**0.0038**		**0.0042**
51-710-00263 61336	**Flowers Baking Company of Norfolk**	10200603	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		30203299	0.1059	1.0502	0.1112	1.1496	0.1218	1.2671	0.1342
	Total		**0.1063**		**0.1116**		**0.1221**		**0.1346**
51-710-00267 61347	**Sorrentino Mariani & Company Incorporated**	40200901	0.0125	1.0852	0.0136	1.2629	0.0158	1.4596	0.0182
		40201901	0.0877	1.1179	0.0980	1.3271	0.1164	1.6210	0.1421
	Total		**0.1002**		**0.1116**		**0.1322**		**0.1604**
51-710-00269 61351	**Bock Drum Company, Incorporated**	10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40200110	0.0122	1.0852	0.0132	1.2629	0.0154	1.4596	0.0178
		30188801	0.0553	1.0484	0.0579	1.1506	0.0636	1.2682	0.0701
	Total		**0.0675**		**0.0712**		**0.0790**		**0.0879**
Portsmouth Jurisdiction									
51-740-00006 60326	**US Navy - Norfolk Naval Shipyard**	10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40600301	0.0002	1.0129	0.0002	1.0447	0.0002	1.0792	0.0002
		20200102	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		20300101	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		40200810	0.0016	1.0852	0.0017	1.2629	0.0020	1.4596	0.0023
		20200401	0.0021	1.0000	0.0021	1.0000	0.0021	1.0000	0.0021
		40600307	0.0025	1.0129	0.0025	1.0447	0.0026	1.0792	0.0026
		40200998	0.0055	1.0852	0.0060	1.2629	0.0070	1.4596	0.0081
		20200102	0.0120	1.0000	0.0120	1.0000	0.0120	1.0000	0.0120
		40200110	0.0192	1.0852	0.0209	1.2629	0.0243	1.4596	0.0281
		40200998	0.0247	1.0852	0.0268	1.2629	0.0312	1.4596	0.0360
		40200110	0.1444	1.0852	0.1567	1.2629	0.1823	1.4596	0.2107
	Total		**0.2126**		**0.2293**		**0.2641**		**0.3026**
51-740-00007 60293	**US Navy Portsmouth Naval Hospital**	10300502	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300502	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		10300502	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300602	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10300602	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		20100102	0.0021	0.7725	0.0016	0.8049	0.0017	0.8128	0.0017
		20200401	0.0100	1.0000	0.0100	1.0000	0.0100	1.0000	0.0100
	Total		**0.0138**		**0.0133**		**0.0134**		**0.0134**
51-740-00024 60291	**BASF Corporation Portsmouth Plant**	30103499	0.1037	1.0404	0.1079	1.1389	0.1181	1.2554	0.1302
	Total		**0.1037**		**0.1079**		**0.1181**		**0.1302**
51-740-00037 60583	**Fleet & Industrial Supply Center**	40600135	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		40600251	0.0000	1.0673	0.0000	1.1977	0.0000	1.3454	0.0000
		40301021	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		40600134	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		40600250	0.0018	1.0673	0.0019	1.1977	0.0022	1.3454	0.0024
		40600251	0.0020	1.0673	0.0021	1.1977	0.0024	1.3454	0.0027
		40301019	0.0021	1.0029	0.0021	1.0866	0.0023	1.1977	0.0025
		40301021	0.0033	1.0029	0.0033	1.0866	0.0036	1.1977	0.0040
		40301018	0.0057	1.0029	0.0057	1.0866	0.0062	1.1977	0.0068
		40301019	0.0192	1.0029	0.0192	1.0866	0.0208	1.1977	0.0229
		40301016	0.0229	1.0029	0.0230	1.0866	0.0249	1.1977	0.0275
	Total		**0.0572**		**0.0576**		**0.0626**		**0.0691**
51-740-00069 60884	**Associated Naval Architects**	40100299	0.0008	1.1448	0.0009	1.4390	0.0012	1.7577	0.0014
		40200110	0.0286	1.0852	0.0311	1.2629	0.0361	1.4596	0.0418
	Total		**0.0294**		**0.0320**		**0.0373**		**0.0432**
51-740-00075 61000	**APAC Virginia Incorporated 800 Constitution Avenue**	30500208	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30500208	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30500208	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		30500206	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300603	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		30500201	0.0025	0.9713	0.0024	1.0309	0.0025	1.1363	0.0028
		30500201	0.0113	0.9713	0.0109	1.0309	0.0116	1.1363	0.0128
	Total		**0.0146**		**0.0142**		**0.0150**		**0.0164**
51-740-00078 61018	**SPSA Refuse Derived Fuel Plant**	10101201	0.0000	1.0391	0.0000	1.1216	0.0000	1.1806	0.0000
51-740-00078 61018	**SPSA Refuse Derived Fuel Plant**	10101201	0.0000	1.0391	0.0000	1.1216	0.0000	1.1806	0.0000
		10101201	0.0000	1.0391	0.0000	1.1216	0.0000	1.1806	0.0000
		10101201	0.0000	1.0391	0.0000	1.1216	0.0000	1.1806	0.0000
		10100204	0.0000	0.9744	0.0000	1.0634	0.0000	1.1947	0.0000
		10100204	0.0000	0.9744	0.0000	1.0634	0.0000	1.1947	0.0000

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		10100204	0.0000	0.9744	0.0000	1.0634	0.0000	1.1947	0.0000
		10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10100204	0.0000	0.9744	0.0000	1.0634	0.0001	1.1947	0.0001
		20200102	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
	Total		**0.0003**		**0.0003**		**0.0003**		**0.0004**
51-740-00081 61049	**Cogentrix Virginia Leasing Corp**	10100204	0.0005	0.9744	0.0005	1.0634	0.0005	1.1947	0.0006
		10100204	0.0005	0.9744	0.0005	1.0634	0.0005	1.1947	0.0006
		10100204	0.0005	0.9744	0.0005	1.0634	0.0006	1.1947	0.0006
		10100204	0.0007	0.9744	0.0006	1.0634	0.0007	1.0636	0.0007
		10100204	0.0007	0.9744	0.0007	1.0634	0.0008	1.1947	0.0009
		10100204	0.0008	0.9744	0.0008	1.0634	0.0008	1.0636	0.0008
	Total		**0.0037**		**0.0036**		**0.0039**		**0.0042**
51-740-00104 61329	**Radva Corporation Portsmouth**	10200603	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		30800799	0.0345	1.1136	0.0384	1.2432	0.0429	1.3703	0.0473
		30800799	0.0820	1.1136	0.0913	1.2432	0.1019	1.3703	0.1123
	Total		**0.1169**		**0.1301**		**0.1452**		**0.1600**
Suffolk Jurisdiction									
51-800-00033 60302	**Blair Bros Incorporated**	30500208	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		30500201	0.0325	0.9713	0.0316	1.0309	0.0335	1.1363	0.0370
		30500204	0.0920	0.9713	0.0893	1.0309	0.0948	1.1363	0.1045
	Total		**0.1247**		**0.1211**		**0.1286**		**0.1417**
51-800-00050 60467	**VITEX Packaging Incorporated**	40500599	0.0353	1.0819	0.0382	1.1977	0.0423	1.3201	0.0466
		40500411	0.0476	1.0819	0.0515	1.1977	0.0570	1.3201	0.0628
	Total		**0.0828**		**0.0896**		**0.0992**		**0.1094**
51-800-00084 60894	**Griffin Oil Company**	40400202	0.0013	1.0242	0.0013	1.0836	0.0014	1.1484	0.0014
		40400205	0.0134	1.0129	0.0136	1.0447	0.0140	1.0792	0.0145
		40600136	0.0275	1.0129	0.0278	1.0447	0.0287	1.0792	0.0297
	Total		**0.0422**		**0.0427**		**0.0441**		**0.0456**
51-800-00091 60998	**Ciba Specialty Chemicals Corporation**	10200602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30101899	0.0002	1.0404	0.0002	1.1366	0.0002	1.2528	0.0002
		10200602	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200602	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		30107001	0.0005	1.0404	0.0005	1.1389	0.0006	1.2554	0.0006
		30588801	0.0019	1.0320	0.0020	1.1417	0.0022	1.2718	0.0024
		30101819	0.0021	1.0404	0.0022	1.1366	0.0024	1.2528	0.0026
51-800-00091 60998	**Ciba Specialty Chemicals Corporation**	20100102	0.0031	0.7725	0.0024	0.8049	0.0025	0.8128	0.0025
		30101819	0.0039	1.0404	0.0041	1.1366	0.0044	1.2528	0.0049
		30101899	0.0067	1.0404	0.0070	1.1366	0.0076	1.2528	0.0084
		30125306	0.0079	1.0404	0.0082	1.1389	0.0090	1.2554	0.0099
		40708098	0.0110	1.0404	0.0115	1.1389	0.0125	1.2554	0.0138

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
	Total		**0.0380**		**0.0386**		**0.0421**		**0.0461**
51-800-00101 61083	**Branscome Inc – Suffolk**	30500206	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		30500208	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		30500205	0.0056	0.9713	0.0055	1.0309	0.0058	1.1363	0.0064
		30500205	0.0363	0.9713	0.0352	1.0309	0.0374	1.1363	0.0412
	Total		**0.0423**		**0.0411**		**0.0436**		**0.0480**
51-800-00106 61100	**Sonoco Products Company**	40200710	0.0151	1.0852	0.0164	1.2629	0.0190	1.4596	0.0220
		40200410	0.1075	1.0852	0.1166	1.2629	0.1357	1.4596	0.1569
	Total		**0.1225**		**0.1330**		**0.1547**		**0.1788**
51-800-00109 61137	**Pow.Gen.(Suffolk) & Suff Energy Partners**	20100202	0.0025	1.2886	0.0032	1.7237	0.0043	1.7988	0.0045
	Total		**0.0025**		**0.0032**		**0.0043**		**0.0045**
51-800-00112 61171	**Crown Cork and Seal (USA)**	40100398	0.0022	1.1448	0.0026	1.4390	0.0032	1.7577	0.0039
		40100398	0.0024	1.1448	0.0027	1.4390	0.0034	1.7577	0.0042
		40100398	0.0082	1.1448	0.0094	1.4390	0.0119	1.7577	0.0145
		40200110	0.0149	1.0852	0.0161	1.2629	0.0188	1.4596	0.0217
		40200710	0.0581	1.0852	0.0630	1.2629	0.0734	1.4596	0.0848
	Total		**0.0858**		**0.0939**		**0.1106**		**0.1291**
51-800-00121 61341	**SPSA Regional Landfill**	50300601	0.0001	1.0852	0.0001	1.2629	0.0001	1.4596	0.0002
	Total		**0.0001**		**0.0001**		**0.0001**		**0.0002**
Virginia Beach jurisdiction									
51-810-00001 60023	**Contractors Paving Company, Incorporated**	30500206	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		30500201	0.0102	0.9713	0.0099	1.0309	0.0105	1.1363	0.0116
		30500201	0.0115	0.9713	0.0112	1.0309	0.0119	1.1363	0.0131
	Total		**0.0220**		**0.0214**		**0.0227**		**0.0249**
51-810-00004 60294	**US Navy Naval Air Station Oceana**	10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200504	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40600306	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600307	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600402	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		10200504	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
51-810-00004 60294	**US Navy Naval Air Station Oceana**	10200504	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		40600401	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40301016	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0002
		40600307	0.0005	1.0129	0.0005	1.0447	0.0005	1.0792	0.0005
		20200102	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10300602	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		10300602	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		20400101	0.0011	0.9260	0.0010	1.1148	0.0012	1.3616	0.0014
		40600306	0.0019	1.0129	0.0019	1.0447	0.0020	1.0792	0.0021
		40600402	0.0019	1.0129	0.0019	1.0447	0.0020	1.0792	0.0021
		40301018	0.0021	1.0029	0.0021	1.0866	0.0023	1.1977	0.0025
		20100102	0.0025	0.7725	0.0020	0.8049	0.0020	0.8128	0.0021
		40600401	0.0034	1.0129	0.0034	1.0447	0.0035	1.0792	0.0036
		10200603	0.0044	1.0000	0.0044	1.0000	0.0044	1.0000	0.0044
		20400101	0.0067	0.9260	0.0062	1.1148	0.0075	1.3616	0.0092
		40200110	0.0078	1.0852	0.0085	1.2629	0.0099	1.4596	0.0114
		40600134	0.0111	1.0029	0.0111	1.0866	0.0120	1.1977	0.0132
		49099999	0.0249	1.0404	0.0259	1.1389	0.0283	1.2554	0.0312
		10300602	0.0295	1.0000	0.0295	1.0000	0.0295	1.0000	0.0295
		20400101	0.0843	0.9260	0.0780	1.1148	0.0939	1.3616	0.1147
	Total		**0.1847**		**0.1792**		**0.2018**		**0.2308**
51-810-00005 60330	**US Army Ft. Story**	40399999	0.0000	1.0029	0.0000	1.0866	0.0000	1.1977	0.0000
		10300501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		20200102	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
51-810-00005 60330	**US Army Ft. Story**	40399999	0.0022	1.0029	0.0022	1.0866	0.0024	1.1977	0.0026
		40299998	0.1100	1.0852	0.1194	1.2629	0.1389	1.4596	0.1606
	Total		**0.1126**		**0.1220**		**0.1417**		**0.1636**
51-810-00006 60280	**US Navy Dam Neck Annex**	10301002	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50200101	0.0000	1.0654	0.0000	1.1836	0.0000	1.3151	0.0000
		40600302	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600402	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		10200504	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200504	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		50400101	0.0001	1.0579	0.0001	1.1891	0.0001	1.3358	0.0001
51-810-00006 60280	**US Navy Dam Neck Annex**	40600401	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		50400101	0.0001	1.0579	0.0001	1.1891	0.0001	1.3358	0.0001
		20100102	0.0002	0.7725	0.0001	0.8049	0.0001	0.8128	0.0001
		10300603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200602	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200602	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		40600302	0.0004	1.0129	0.0004	1.0447	0.0004	1.0792	0.0004

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	Facility Name	SCC	2002	2005		2011		2018	
			VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)	Growth Factor	VOC (tpd)
		40600402	0.0004	1.0129	0.0004	1.0447	0.0004	1.0792	0.0004
		20200401	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		40600401	0.0007	1.0129	0.0007	1.0447	0.0007	1.0792	0.0007
		20100102	0.0031	0.7725	0.0024	0.8049	0.0025	0.8128	0.0025
	Total		**0.0070**		**0.0063**		**0.0065**		**0.0066**
51-810-00013 60033	**US Navy Little Creek Amphibious Base**	10500205	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10500206	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10500214	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		20300101	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		40400202	0.0001	1.0242	0.0001	1.0836	0.0001	1.1484	0.0001
		40600307	0.0001	1.0129	0.0001	1.0447	0.0001	1.0792	0.0001
		40600134	0.0001	1.0029	0.0001	1.0866	0.0001	1.1977	0.0001
		40301018	0.0002	1.0029	0.0002	1.0866	0.0002	1.1977	0.0002
		40600401	0.0002	1.0129	0.0002	1.0447	0.0002	1.0792	0.0002
		40600131	0.0002	1.0129	0.0002	1.0447	0.0002	1.0792	0.0002
		40300106	0.0004	1.0029	0.0004	1.0866	0.0004	1.1977	0.0004
		10300209	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10300209	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		40600401	0.0009	1.0129	0.0009	1.0447	0.0010	1.0792	0.0010
		40400205	0.0019	1.0129	0.0019	1.0447	0.0020	1.0792	0.0020
		40600306	0.0032	1.0129	0.0032	1.0447	0.0033	1.0792	0.0034
		40200110	0.0049	1.0852	0.0053	1.2629	0.0061	1.4596	0.0071
		40200110	0.0062	1.0852	0.0068	1.2629	0.0079	1.4596	0.0091
		40600401	0.0076	1.0129	0.0077	1.0447	0.0080	1.0792	0.0082
		40600401	0.0077	1.0129	0.0078	1.0447	0.0081	1.0792	0.0084
		20100102	0.0117	0.7725	0.0090	0.8049	0.0094	0.8128	0.0095
		40200110	0.0188	1.0852	0.0204	1.2629	0.0238	1.4596	0.0275
	Total		**0.0651**		**0.0652**		**0.0717**		**0.0785**

Table 3.2.2-1									
Projected VOC Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			VOC (tpd)	**Growth Factor**	**VOC (tpd)**	**Growth Factor**	**VOC (tpd)**	**Growth Factor**	**VOC (tpd)**
51-810-00034 60431	**HRSD Chesapeake-Elizabeth Sewage Treatment Plant**	50100701	0.0024	1.0579	0.0026	1.1891	0.0029	1.3358	0.0032
		20200401	0.0042	1.0000	0.0042	1.0000	0.0042	1.0000	0.0042
		50200506	0.0135	1.0654	0.0143	1.1836	0.0159	1.3151	0.0177
		50100701	0.0180	1.0579	0.0191	1.1891	0.0215	1.3358	0.0241
	Total		**0.0382**		**0.0402**		**0.0445**		**0.0493**
51-810-00044 60995	**Stihl Incorporated**	40200920	0.0066	1.0852	0.0071	1.2629	0.0083	1.4596	0.0096
		20400401	0.0083	0.9260	0.0077	1.1148	0.0093	1.3616	0.0113
	Total		**0.0149**		**0.0148**		**0.0176**		**0.0209**
51-810-00060 60741	**Servitex Incorporated**	10300602	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200501	0.0017	1.0000	0.0017	1.0000	0.0017	1.0000	0.0017
	Total		**0.0020**		**0.0020**		**0.0020**		**0.0020**
51-810-00105 61322	**Virginia Beach Landfill II**	20200102	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50100410	0.0003	1.0579	0.0003	1.1891	0.0003	1.3358	0.0004
		40200901	0.0016	1.0852	0.0018	1.2629	0.0021	1.4596	0.0024
	Total		**0.0019**		**0.0021**		**0.0024**		**0.0028**
51-810-00109 61354	**Storopack Incorporated**	10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30199999	0.0523	1.0484	0.0549	1.1506	0.0602	1.2682	0.0664
	Total		**0.0524**		**0.0549**		**0.0603**		**0.0664**
51-810-00117 61423	**INGENCO - Virginia Beach**	20200102	0.1356	1.0000	0.1356	1.0000	0.1356	1.0000	0.1356
	Total		**0.1356**		**0.1356**		**0.1356**		**0.1356**
Williamsburg Jurisdiction									
51-830-00030 60401	**Colonial Williamsburg Foundation**	10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		20100202	0.0000	1.2886	0.0000	1.7237	0.0000	1.7988	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300602	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300602	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10300602	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
	Total		**0.0026**		**0.0026**		**0.0026**		**0.0026**
Non-attainment Area Total			**18.7579**		**20.0913**		**23.2805**		**26.7045**

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
Gloucester									
51-073-00032 40920	**Middle Peninsula Landfill**	50100410	0.0970	1.0579	0.1026	1.1891	0.1154	1.3358	0.1296
	Total		**0.0970**		**0.1026**		**0.1154**		**0.1296**
51-073-52004 52004	**Middle Peninsula Landfill and Recyc Fac - Portable**	10100501	0.0548	0.7725	0.0423	0.8049	0.0441	0.8128	0.0445
	Total		**0.0548**		**0.0423**		**0.0441**		**0.0445**
Isle of Weight									
51-093-00004 60102	**Walters Grain and Supply**	10201002	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
	Total		**0.0011**		**0.0011**		**0.0011**		**0.0011**
51-093-00006 60214	**International Paper Company**	20100101	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100101	0.0001	0.7725	0.0001	0.8049	0.0001	0.8128	0.0001
		30700105	0.0136	1.1006	0.0150	1.2778	0.0174	1.4808	0.0202
		30700105	0.0146	1.1006	0.0160	1.2778	0.0186	1.4808	0.0216
		10200401	0.0294	1.0000	0.0294	1.0000	0.0294	1.0000	0.0294
		30700105	0.0323	1.1006	0.0356	1.2778	0.0413	1.4808	0.0479
		39000489	0.0467	1.0000	0.0467	1.0000	0.0467	1.0000	0.0467
		39000489	0.0467	1.0000	0.0467	1.0000	0.0467	1.0000	0.0467
		10200401	0.0840	1.0000	0.0840	1.0000	0.0840	1.0000	0.0840
		30700106	0.0870	1.1006	0.0958	1.2778	0.1112	1.4808	0.1289
		39000489	0.0871	1.0000	0.0871	1.0000	0.0871	1.0000	0.0871
		10200401	0.1151	1.0000	0.1151	1.0000	0.1151	1.0000	0.1151
		30700106	0.1568	1.1006	0.1726	1.2778	0.2004	1.4808	0.2322
		20100201	0.1797	1.2886	0.2316	1.7237	0.3098	1.7988	0.3233
		30700106	0.2317	1.1006	0.2550	1.2778	0.2961	1.4808	0.3431
		30700104	0.3504	1.1006	0.3856	1.2778	0.4477	1.4808	0.5188
51-093-00006 60214	**International Paper Company**	30700104	0.3642	1.1006	0.4008	1.2778	0.4653	1.4808	0.5393
		10200902	0.5796	1.0000	0.5796	1.0000	0.5796	1.0000	0.5796
		10200902	0.6432	1.0000	0.6432	1.0000	0.6432	1.0000	0.6432
		10200202	0.7089	1.0000	0.7089	1.0000	0.7089	1.0000	0.7089
		30700104	0.8029	1.1006	0.8837	1.2778	1.0260	1.4808	1.1889
		10200204	0.9987	1.0000	0.9987	1.0000	0.9987	1.0000	0.9987

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
		10200204	1.1900	1.0000	1.1900	1.0000	1.1900	1.0000	1.1900
		10200202	2.0200	1.0000	2.0200	1.0000	2.0200	1.0000	2.0200
	Total		**8.7828**		**9.0413**		**9.4834**		**9.9137**
51-093-00011 60270	**Smithfield Foods Inc**	30201302	0.0000	1.0699	0.0000	1.1761	0.0000	1.2963	0.0000
		10500106	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		30291001	0.0013	1.0672	0.0014	1.1745	0.0016	1.2946	0.0017
		10500106	0.0032	1.0000	0.0032	1.0000	0.0032	1.0000	0.0032
		10500106	0.0032	1.0000	0.0032	1.0000	0.0032	1.0000	0.0032
		10200602	0.0037	1.0000	0.0037	1.0000	0.0037	1.0000	0.0037
		30291001	0.0046	1.0672	0.0049	1.1745	0.0054	1.2946	0.0060
		30290003	0.0051	1.0000	0.0051	1.0000	0.0051	1.0000	0.0051
		10200602	0.0061	1.0000	0.0061	1.0000	0.0061	1.0000	0.0061
		10200602	0.0076	1.0000	0.0076	1.0000	0.0076	1.0000	0.0076
		30299998	0.0077	1.0672	0.0082	1.1745	0.0090	1.2946	0.0099
		10200602	0.0101	1.0000	0.0101	1.0000	0.0101	1.0000	0.0101
		30291001	0.0125	1.0672	0.0133	1.1745	0.0147	1.2946	0.0162
		10200602	0.0131	1.0000	0.0131	1.0000	0.0131	1.0000	0.0131
		10200602	0.0194	1.0000	0.0194	1.0000	0.0194	1.0000	0.0194
		10200602	0.0294	1.0000	0.0294	1.0000	0.0294	1.0000	0.0294
		10200602	0.0313	1.0000	0.0313	1.0000	0.0313	1.0000	0.0313
		10200602	0.0363	1.0000	0.0363	1.0000	0.0363	1.0000	0.0363
		10200602	0.0365	1.0000	0.0365	1.0000	0.0365	1.0000	0.0365
	Total		**0.2323**		**0.2341**		**0.2369**		**0.2400**
51-093-00018 60171	**Nevamar Company LLC**	10200502	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		30703096	0.0049	1.1357	0.0055	1.4325	0.0070	1.7497	0.0085
		10200905	0.1602	1.0000	0.1602	1.0000	0.1602	1.0000	0.1602
		10200905	0.2496	1.0000	0.2496	1.0000	0.2496	1.0000	0.2496
	Total		**0.4148**		**0.4155**		**0.4169**		**0.4184**
James City									
51-095-00008 60065	**Ball Metal Beverage Container Corporation**	10200602	0.0025	1.0000	0.0025	1.0000	0.0025	1.0000	0.0025
51-095-00008 60065	**Ball Metal Beverage Container Corporation**	39000689	0.0039	1.0000	0.0039	1.0000	0.0039	1.0000	0.0039
		39000689	0.0039	1.0000	0.0039	1.0000	0.0039	1.0000	0.0039
		39000689	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		39000689	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
		20200102	0.0127	1.0000	0.0127	1.0000	0.0127	1.0000	0.0127
	Total		**0.0372**		**0.0372**		**0.0372**		**0.0372**
51-095-00010 60152	**Anheuser-Busch Incorporated**	10200401	0.0069	1.0000	0.0069	1.0000	0.0069	1.0000	0.0069
		10200401	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		10200401	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		10200401	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		39000689	0.0087	1.0000	0.0087	1.0000	0.0087	1.0000	0.0087
		39000689	0.0087	1.0000	0.0087	1.0000	0.0087	1.0000	0.0087
		39000689	0.0136	1.0000	0.0136	1.0000	0.0136	1.0000	0.0136
		10200602	0.0431	1.0000	0.0431	1.0000	0.0431	1.0000	0.0431
		10200602	0.0439	1.0000	0.0439	1.0000	0.0439	1.0000	0.0439
		10200602	0.0439	1.0000	0.0439	1.0000	0.0439	1.0000	0.0439
		10200602	0.0439	1.0000	0.0439	1.0000	0.0439	1.0000	0.0439
		10200602	0.0553	1.0000	0.0553	1.0000	0.0553	1.0000	0.0553
	Total		**0.2892**		**0.2892**		**0.2892**		**0.2892**
51-095-00022 60923	**Owens-Brockway Glass Container**	39000699	0.0052	1.0000	0.0052	1.0000	0.0052	1.0000	0.0052
		39000699	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		30501402	0.5734	1.1133	0.6384	1.3859	0.7947	1.6928	0.9707
		30501402	0.6320	1.1133	0.7036	1.3859	0.8759	1.6928	1.0698
	Total		**1.2178**		**1.3544**		**1.6830**		**2.0529**
51-095-00023 60355	**HRSD Williamsburg Sewage Treatment Plant**	20200401	0.0410	1.0000	0.0410	1.0000	0.0410	1.0000	0.0410
		50100506	0.0495	1.0579	0.0524	1.1891	0.0589	1.3358	0.0662
	Total		**0.0905**		**0.0934**		**0.0999**		**0.1072**
51-095-00024 60611	**Branscome Inc - Lee Hall**	30500206	0.0067	1.0000	0.0067	1.0000	0.0067	1.0000	0.0067
		30500208	0.0113	1.0000	0.0113	1.0000	0.0113	1.0000	0.0113
		30500205	0.0236	0.9713	0.0229	1.0309	0.0243	1.1363	0.0268
	Total		**0.0415**		**0.0409**		**0.0423**		**0.0448**
York									
51-199-00001 60137	**Dom Yorktown Power Station**	10200501	0.0136	1.0000	0.0136	1.0000	0.0136	1.0000	0.0136
		10100212	5.7305		3.6042	1.0913	3.9334	1.2261	4.4191
		10100212	6.2404		4.0426	1.0913	4.4118	1.2261	4.9566
		10100404	15.0410		12.1801	1.0913	13.2924	1.2261	14.9338
	Total		**27.0254**		**19.8405**		**21.6511**		**24.3230**
51-199-00002 60301	**US Navy Naval Weapons Station Yorktown**	20200301	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			NOx (tpd)	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**
		10200602	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		10200504	0.0032	1.0000	0.0032	1.0000	0.0032	1.0000	0.0032
		10200501	0.0057	1.0000	0.0057	1.0000	0.0057	1.0000	0.0057
		20200102	0.0225	1.0000	0.0225	1.0000	0.0225	1.0000	0.0225
		20200401	0.0365	1.0000	0.0365	1.0000	0.0365	1.0000	0.0365
		20200102	0.2251	1.0000	0.2251	1.0000	0.2251	1.0000	0.2251
	Total		**0.2950**		**0.2950**		**0.2950**		**0.2950**
51-199-00004 60116	**Giant Yorktown Refinery**	30190004	0.0081	1.0000	0.0081	1.0000	0.0081	1.0000	0.0081
		10200701	0.0123	1.0000	0.0123	1.0000	0.0123	1.0000	0.0123
		30600904	0.0340	1.0000	0.0340	1.0000	0.0340	1.0000	0.0340
		10200701	0.0343	1.0000	0.0343	1.0000	0.0343	1.0000	0.0343
		30600104	0.0918	1.0000	0.0918	1.0000	0.0918	1.0000	0.0918
		30600104	0.1651	1.0000	0.1651	1.0000	0.1651	1.0000	0.1651
		10200701	0.3202	1.0000	0.3202	1.0000	0.3202	1.0000	0.3202
		30600104	0.4157	1.0000	0.4157	1.0000	0.4157	1.0000	0.4157
		39001299	0.5767	1.0000	0.5767	1.0000	0.5767	1.0000	0.5767
		30600904	2.8300	1.0000	2.8300	1.0000	2.8300	1.0000	2.8300
	Total		**4.4882**		**4.4882**		**4.4882**		**4.4882**
Chesapeake									
51-550-00004 60077	**Lafarge Calcium Aluminates Incorporated**	30500606	0.1700	1.0552	0.1794	1.1629	0.1977	1.2612	0.2144
	Total		**0.1700**		**0.1794**		**0.1977**		**0.2144**
51-550-00015 60039	**Chesapeake Grain Company**	30500208	0.0026	1.0000	0.0026	1.0000	0.0026	1.0000	0.0026
	Total		**0.0026**		**0.0026**		**0.0026**		**0.0026**
51-550-00016 60050	**Kinder Morgan/Elizabeth River Terminals, LLC**	20200102	0.0066	1.0000	0.0066	1.0000	0.0066	1.0000	0.0066
	Total		**0.0066**		**0.0066**		**0.0066**		**0.0066**
51-550-00017 60069	**Allied Terminals Incorporated - Chesapeake**	40600141	0.0002	1.0129	0.0002	1.0447	0.0002	1.0792	0.0002

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			NOx (tpd)	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**
51-550-00017 60069	**Allied Terminals Incorporated - Chesapeake**	40600141	0.0014	1.0129	0.0014	1.0447	0.0015	1.0792	0.0015
	Total		**0.0016**		**0.0016**		**0.0016**		**0.0017**
51-550-00023 60149	**IMTT Chesapeake**	10200602	0.0953	1.0000	0.0953	1.0000	0.0953	1.0000	0.0953
	Total		**0.0953**		**0.0953**		**0.0953**		**0.0953**
51-550-00025 60161	**Citgo Petroleum Chesapeake Terminal**	40400153	0.0053	1.0029	0.0054	1.0866	0.0058	1.1977	0.0064
	Total		**0.0053**		**0.0054**		**0.0058**		**0.0064**
51-550-00026 60163	**Dominion - Chesapeake**	20100109	0.0014	0.7725	0.0010	0.8049	0.0011	0.8128	0.0011
		20100109	0.0015	0.7725	0.0012	0.8049	0.0012	0.8128	0.0012
		20100109	0.0018	0.7725	0.0014	0.8049	0.0014	0.8128	0.0014
		20100109	0.0020	0.7725	0.0015	0.8049	0.0016	0.8128	0.0016
		20100109	0.0020	0.7725	0.0016	0.8049	0.0016	0.8128	0.0016
		20100109	0.0020	0.7725	0.0016	0.8049	0.0016	0.8128	0.0016
		10100212	5.9353		3.5330	1.0913	3.8557	1.2261	4.3318
		10100212	6.0696		2.7270	1.0913	2.9760	1.2261	3.3435
		10100202	6.6670		0.5039	1.0913	0.5499	1.2261	0.6178
		10100212	10.0223		0.5039	1.0913	0.5499	1.2261	0.6178
	Total		**28.7048**		**7.2760**		**7.9401**		**8.9196**
51-550-00028 60179	**Apex Oil Company - Chesapeake Terminal Division**	10200504	0.0094	1.0000	0.0094	1.0000	0.0094	1.0000	0.0094
		10200502	0.0461	1.0000	0.0461	1.0000	0.0461	1.0000	0.0461
	Total		**0.0554**		**0.0554**		**0.0554**		**0.0554**
51-550-00035 60242	**Transmon-taigne Product Services**	40600141	0.0017	1.0129	0.0017	1.0447	0.0017	1.0792	0.0018
		40600141	0.0028	1.0129	0.0029	1.0447	0.0029	1.0792	0.0030
	Total		**0.0045**		**0.0045**		**0.0047**		**0.0048**
51-550-00044 60127	**Royster-Clark Incorporated - Chesapeake Plant**	10200501	0.0045	1.0000	0.0045	1.0000	0.0045	1.0000	0.0045
		10200501	0.0134	1.0000	0.0134	1.0000	0.0134	1.0000	0.0134
		30103001	0.0226	1.0791	0.0244	1.2041	0.0272	1.3272	0.0300
	Total		**0.0405**		**0.0423**		**0.0451**		**0.0479**
51-550-00052 60342	**NOVA Chemicals Incorporated**	10200501	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200401	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10200402	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			NOx (tpd)	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**
		10200602	0.0026	1.0000	0.0026	1.0000	0.0026	1.0000	0.0026
51-550-00052 60342	**NOVA Chemicals Incorporated**	10200602	0.0045	1.0000	0.0045	1.0000	0.0045	1.0000	0.0045
		10200603	0.0049	1.0000	0.0049	1.0000	0.0049	1.0000	0.0049
		10200602	0.0060	1.0000	0.0060	1.0000	0.0060	1.0000	0.0060
		20200102	0.0382	1.0000	0.0382	1.0000	0.0382	1.0000	0.0382
	Total		**0.0578**		**0.0578**		**0.0578**		**0.0578**
51-550-00056 60851	**Chesapeake Hardwood Products Inc**	40201001	0.0333	1.0000	0.0333	1.0000	0.0333	1.0000	0.0333
	Total		**0.0333**		**0.0333**		**0.0333**		**0.0333**
51-550-00092 60920	**Amerada Hess Corporation - Chesapeake**	10200401	0.0199	1.0000	0.0199	1.0000	0.0199	1.0000	0.0199
	Total		**0.0199**		**0.0199**		**0.0199**		**0.0199**
51-550-00161 61108	**Common-wealth Atlantic Limited Partnership-Chesapeake**	20100201	1.2480		0.2382	1.3377	0.3186	1.3959	0.3325
		20100201	1.2500		0.2739	1.3377	0.3664	1.3959	0.3824
		20100201	1.2500		0.0000	1.7237	2.1547	1.7988	2.2486
	Total		**3.7480**		**0.5121**		**2.8397**		**2.9634**
Hampton									
51-650-00006 60051	**US NASA - Langley Research Center**	39999992	0.0000	1.1585	0.0000	1.4790	0.0000	1.8064	0.0000
		10200602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300501	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10201002	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		10300602	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		40588801	0.0008	1.0507	0.0008	1.1522	0.0009	1.2700	0.0010
		10300602	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		10300503	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		10300501	0.0013	1.0000	0.0013	1.0000	0.0013	1.0000	0.0013
		10300603	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
		10300503	0.0022	1.0000	0.0022	1.0000	0.0022	1.0000	0.0022
51-650-00006 60051	**US NASA - Langley Research Center**	10300601	0.0078	1.0000	0.0078	1.0000	0.0078	1.0000	0.0078
		20200102	0.0160	1.0000	0.0160	1.0000	0.0160	1.0000	0.0160
		39999992	0.0198	1.1585	0.0229	1.4790	0.0293	1.8064	0.0358
		10300601	0.0521	1.0000	0.0521	1.0000	0.0521	1.0000	0.0521
		10300601	0.0921	1.0000	0.0921	1.0000	0.0921	1.0000	0.0921
	Total		**0.1975**		**0.2007**		**0.2071**		**0.2137**

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			NOx (tpd)	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**
51-650-00007 60059	**US Air Force Base Langley**	20300101	0.0186	1.0000	0.0186	1.0000	0.0186	1.0000	0.0186
		39999993	0.0878	1.1585	0.1017	1.4790	0.1299	1.8064	0.1586
	Total		**0.1064**		**0.1203**		**0.1485**		**0.1772**
51-650-00010 60106	**Hampton University**	10300903	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200603	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10200501	0.0086	1.0000	0.0086	1.0000	0.0086	1.0000	0.0086
		10200501	0.0120	1.0000	0.0120	1.0000	0.0120	1.0000	0.0120
		10200501	0.0345	1.0000	0.0345	1.0000	0.0345	1.0000	0.0345
		10300208	0.0404	1.0000	0.0404	1.0000	0.0404	1.0000	0.0404
	Total		**0.0961**		**0.0961**		**0.0961**		**0.0961**
51-650-00011 60141	**US Department of Veterans Affairs Medical Ctr**	10300501	0.0032	1.0000	0.0032	1.0000	0.0032	1.0000	0.0032
		10300602	0.0221	1.0000	0.0221	1.0000	0.0221	1.0000	0.0221
		30700808	0.0644	1.1357	0.0731	1.4325	0.0922	1.7497	0.1126
	Total		**0.0896**		**0.0983**		**0.1174**		**0.1378**
51-650-00061 61019	**Hampton/NASA Steam Plant**	50100102	0.2006	1.0579	0.2122	1.1891	0.2385	1.3358	0.2679
		50100102	0.2331	1.0579	0.2466	1.1891	0.2772	1.3358	0.3114
	Total		**0.4337**		**0.4588**		**0.5157**		**0.5793**
51-650-00069 60636	**Howmet Castings, an Alcoa Company**	30901102	0.0027	1.2441	0.0034	1.6113	0.0044	1.9681	0.0054
		30901102	0.0140	1.2441	0.0174	1.6113	0.0226	1.9681	0.0276
		10200603	0.0422	1.0000	0.0422	1.0000	0.0422	1.0000	0.0422
	Total		**0.0589**		**0.0630**		**0.0692**		**0.0752**
51-650-00093 61291	**Bethel Landfill**	10201402	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
		50200601	0.0702	1.0654	0.0748	1.1836	0.0831	1.3151	0.0923
	Total		**0.0716**		**0.0762**		**0.0845**		**0.0937**
Newport News									
51-700-00002 60333	**US Army Fort Eustis (Army Transport Center)**	20400111	0.0017	0.9260	0.0016	1.1148	0.0019	1.3616	0.0024
		20200102	0.0037	1.0000	0.0037	1.0000	0.0037	1.0000	0.0037
		20200102	0.0038	1.0000	0.0038	1.0000	0.0038	1.0000	0.0038
		20200252	0.0069	1.0000	0.0069	1.0000	0.0069	1.0000	0.0069
		10300501	0.0087	1.0000	0.0087	1.0000	0.0087	1.0000	0.0087
		10300602	0.0436	1.0000	0.0436	1.0000	0.0436	1.0000	0.0436
	Total		**0.0685**		**0.0683**		**0.0687**		**0.0691**
51-700-00013 60153	**Newport News Shipbuilding**	50300101	0.0000	1.0852	0.0000	1.2629	0.0000	1.4596	0.0000
		10301002	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200603	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		30400701	0.0008	1.0890	0.0009	1.3801	0.0012	1.6856	0.0014

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			NOx (tpd)	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**
		10200603	0.0015	1.0000	0.0015	1.0000	0.0015	1.0000	0.0015
		10200603	0.0015	1.0000	0.0015	1.0000	0.0015	1.0000	0.0015
		30400799	0.0030	1.0890	0.0033	1.3801	0.0042	1.6856	0.0051
		39001089	0.0194	1.0000	0.0194	1.0000	0.0194	1.0000	0.0194
		20200401	0.1043	1.0000	0.1043	1.0000	0.1043	1.0000	0.1043
		10200401	0.1602	1.0000	0.1602	1.0000	0.1602	1.0000	0.1602
		10200401	0.1602	1.0000	0.1602	1.0000	0.1602	1.0000	0.1602
		10200401	0.1602	1.0000	0.1602	1.0000	0.1602	1.0000	0.1602
		10200603	0.1724	1.0000	0.1724	1.0000	0.1724	1.0000	0.1724
		10200401	0.2079	1.0000	0.2079	1.0000	0.2079	1.0000	0.2079
	Total		**0.9920**		**0.9924**		**0.9935**		**0.9947**
51-700-00019 60208	**Mica Company of Canada Inc**	10200603	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
	Total		**0.0014**		**0.0014**		**0.0014**		**0.0014**
51-700-00066 60913	**Shorewood Packaging Corporation**	10200603	0.0093	1.0000	0.0093	1.0000	0.0093	1.0000	0.0093
	Total		**0.0093**		**0.0093**		**0.0093**		**0.0093**
51-700-00068 60351	**HRSD Boat Harbor Sewage Treatment Plant**	20200102	0.0044	1.0000	0.0044	1.0000	0.0044	1.0000	0.0044
		50200506	0.0518	1.0654	0.0551	1.1836	0.0613	1.3151	0.0681
		20200401	0.0828	1.0000	0.0828	1.0000	0.0828	1.0000	0.0828
		20200401	0.0828	1.0000	0.0828	1.0000	0.0828	1.0000	0.0828
	Total		**0.2218**		**0.2252**		**0.2313**		**0.2381**
51-700-00089 61078	**Basic Construction - Newport News**	30500201	0.0128	0.9713	0.0124	1.0309	0.0132	1.1363	0.0145
		30500206	0.0192	1.0000	0.0192	1.0000	0.0192	1.0000	0.0192
	Total		**0.0320**		**0.0316**		**0.0324**		**0.0338**
51-700-00091 61085	**Kinyo Virginia Incorporated**	10200603	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		10200602	0.0096	1.0000	0.0096	1.0000	0.0096	1.0000	0.0096
	Total		**0.0120**		**0.0120**		**0.0120**		**0.0120**
Norfolk									
51-710-00006 60246	**Norfolk Shipbuilding and Drydock - Berkley**	39000599	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200401	0.0062	1.0000	0.0062	1.0000	0.0062	1.0000	0.0062
		10200401	0.0101	1.0000	0.0101	1.0000	0.0101	1.0000	0.0101
		10200401	0.0227	1.0000	0.0227	1.0000	0.0227	1.0000	0.0227
		20200102	0.1659	1.0000	0.1659	1.0000	0.1659	1.0000	0.1659
	Total		**0.2051**		**0.2051**		**0.2051**		**0.2051**

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
51-710-00009 60268	**Ford Motor Company Norfolk Plant**	39000689	0.1534	1.0000	0.1534	1.0000	0.1534	1.0000	0.1534
	Total		**0.1534**		**0.1534**		**0.1534**		**0.1534**
51-710-00034 60134	**Metro Machine Corporation**	10200602	0.0035	1.0000	0.0035	1.0000	0.0035	1.0000	0.0035
		10200602	0.0040	1.0000	0.0040	1.0000	0.0040	1.0000	0.0040
	Total		**0.0075**		**0.0075**		**0.0075**		**0.0075**
51-710-00042 60164	**Sentara Norfolk General Hospital**	10300602	0.0072	1.0000	0.0072	1.0000	0.0072	1.0000	0.0072
		10300602	0.0088	1.0000	0.0088	1.0000	0.0088	1.0000	0.0088
		10300401	0.0117	1.0000	0.0117	1.0000	0.0117	1.0000	0.0117
		10300401	0.0119	1.0000	0.0119	1.0000	0.0119	1.0000	0.0119
		10300602	0.0129	1.0000	0.0129	1.0000	0.0129	1.0000	0.0129
		10300401	0.0231	1.0000	0.0231	1.0000	0.0231	1.0000	0.0231
		20200401	0.0334	1.0000	0.0334	1.0000	0.0334	1.0000	0.0334
	Total		**0.1090**		**0.1090**		**0.1090**		**0.1090**
51-710-00068 60234	**U S Gypsum Co**	39000689	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		39000689	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		10200603	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		39000689	0.0025	1.0000	0.0025	1.0000	0.0025	1.0000	0.0025
	Total		**0.0045**		**0.0045**		**0.0045**		**0.0045**
51-710-00113 60750	**J H Miles & Company Incorporated**	10200504	0.0044	1.0000	0.0044	1.0000	0.0044	1.0000	0.0044
		10200504	0.0066	1.0000	0.0066	1.0000	0.0066	1.0000	0.0066
	Total		**0.0110**		**0.0110**		**0.0110**		**0.0110**
51-710-00194 60941	**US Navy Norfolk Naval Base-Sewells Point**	39999992	0.0001	1.1585	0.0001	1.4790	0.0001	1.8064	0.0002
		10300501	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		39999992	0.0003	1.1585	0.0003	1.4790	0.0004	1.8064	0.0005
		10200501	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		39999992	0.0006	1.1585	0.0007	1.4790	0.0009	1.8064	0.0011
		10200401	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		39999992	0.0016	1.1585	0.0018	1.4790	0.0023	1.8064	0.0028
		10200501	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		10200402	0.0029	1.0000	0.0029	1.0000	0.0029	1.0000	0.0029
		39999992	0.0030	1.1585	0.0035	1.4790	0.0045	1.8064	0.0055
		39999992	0.0032	1.1585	0.0037	1.4790	0.0048	1.8064	0.0058
		10200501	0.0088	1.0000	0.0088	1.0000	0.0088	1.0000	0.0088
		10200502	0.0094	1.0000	0.0094	1.0000	0.0094	1.0000	0.0094
51-710-00194	**US Navy**	10200501	0.0102	1.0000	0.0102	1.0000	0.0102	1.0000	0.0102

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
60941	Norfolk Naval Base-Sewells Point	10200501	0.0109	1.0000	0.0109	1.0000	0.0109	1.0000	0.0109
		10200501	0.0140	1.0000	0.0140	1.0000	0.0140	1.0000	0.0140
		20100102	0.0159	0.7725	0.0123	0.8049	0.0128	0.8128	0.0129
		10200601	0.0168	1.0000	0.0168	1.0000	0.0168	1.0000	0.0168
		10200404	0.0192	1.0000	0.0192	1.0000	0.0192	1.0000	0.0192
		10200601	0.0204	1.0000	0.0204	1.0000	0.0204	1.0000	0.0204
		20200401	0.0219	1.0000	0.0219	1.0000	0.0219	1.0000	0.0219
		10200601	0.0233	1.0000	0.0233	1.0000	0.0233	1.0000	0.0233
		10200404	0.0415	1.0000	0.0415	1.0000	0.0415	1.0000	0.0415
		10200404	0.0440	1.0000	0.0440	1.0000	0.0440	1.0000	0.0440
		10200404	0.0452	1.0000	0.0452	1.0000	0.0452	1.0000	0.0452
		10200601	0.1028	1.0000	0.1028	1.0000	0.1028	1.0000	0.1028
		10200601	0.1195	1.0000	0.1195	1.0000	0.1195	1.0000	0.1195
		10200601	0.1657	1.0000	0.1657	1.0000	0.1657	1.0000	0.1657
	Total		**0.7047**		**0.7025**		**0.7059**		**0.7089**
51-710-00196 60349	HRSD Army Base Sewage Treatment Plant	20200102	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		20100101	0.0043	0.7725	0.0033	0.8049	0.0034	0.8128	0.0035
		50200506	0.0323	1.0654	0.0344	1.1836	0.0382	1.3151	0.0424
	Total		**0.0366**		**0.0378**		**0.0417**		**0.0460**
51-710-00197 60350	HRSD Virginia Initiative Plant	50200506	0.0529	1.0654	0.0564	1.1836	0.0627	1.3151	0.0696
		20100102	0.0596	0.7725	0.0460	0.8049	0.0480	0.8128	0.0484
	Total		**0.1125**		**0.1024**		**0.1106**		**0.1180**
51-710-00219 61038	American Waste Industries, Incorporated	10200603	0.0016	1.0000	0.0016	1.0000	0.0016	1.0000	0.0016
		50200505	0.0503	1.0702	0.0538	1.1946	0.0601	1.3228	0.0665
		50200505	0.0541	1.0702	0.0579	1.1946	0.0646	1.3228	0.0715
	Total		**0.1059**		**0.1132**		**0.1262**		**0.1396**
51-710-00263 61336	Flowers Baking Company of Norfolk	10200603	0.0069	1.0000	0.0069	1.0000	0.0069	1.0000	0.0069
	Total		**0.0069**		**0.0069**		**0.0069**		**0.0069**
51-710-00269 61351	Bock Drum Company, Incorporated	10200501	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
	Total		**0.0008**		**0.0008**		**0.0008**		**0.0008**
Portsmouth									
51-740-00006 60326	US Navy - Norfolk Naval Shipyard	10300603	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
51-740-00006 60326	US Navy - Norfolk Naval Shipyard	10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		20200102	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		20300101	0.0035	1.0000	0.0035	1.0000	0.0035	1.0000	0.0035
		20200401	0.0833	1.0000	0.0833	1.0000	0.0833	1.0000	0.0833
		20200102	0.1474	1.0000	0.1474	1.0000	0.1474	1.0000	0.1474
	Total		**0.2364**		**0.2364**		**0.2364**		**0.2364**
51-740-00007 60293	US Navy Portsmouth Naval Hospital	10300502	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300602	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010
		10300502	0.0048	1.0000	0.0048	1.0000	0.0048	1.0000	0.0048
51-740-00007 60293	US Navy Portsmouth Naval Hospital	10300602	0.0052	1.0000	0.0052	1.0000	0.0052	1.0000	0.0052
		10300502	0.0054	1.0000	0.0054	1.0000	0.0054	1.0000	0.0054
		10300602	0.0080	1.0000	0.0080	1.0000	0.0080	1.0000	0.0080
		20100102	0.0391	0.7725	0.0302	0.8049	0.0315	0.8128	0.0318
		20200401	0.3205	1.0000	0.3205	1.0000	0.3205	1.0000	0.3205
	Total		**0.3842**		**0.3753**		**0.3765**		**0.3769**
51-740-00075 61000	APAC Virginia Incorporated 800 Constitution Avenue	30500208	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30500208	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		30500208	0.0017	1.0000	0.0017	1.0000	0.0017	1.0000	0.0017
		30500206	0.0048	1.0000	0.0048	1.0000	0.0048	1.0000	0.0048
		30500201	0.0091	0.9713	0.0088	1.0309	0.0093	1.1363	0.0103
		10300603	0.0132	1.0000	0.0132	1.0000	0.0132	1.0000	0.0132
		30500201	0.0166	0.9713	0.0161	1.0309	0.0171	1.1363	0.0188
	Total		**0.0458**		**0.0451**		**0.0466**		**0.0493**
51-740-00078 61018	SPSA Refuse Derived Fuel Plant	20200102	0.0021	1.0000	0.0021	1.0000	0.0021	1.0000	0.0021
		10200501	0.0048	1.0000	0.0048	1.0000	0.0048	1.0000	0.0048
		10100204	0.0102	0.9744	0.0100	1.0634	0.0109	1.1947	0.0122
		10100204	0.0102	0.9744	0.0100	1.0634	0.0109	1.1947	0.0122
		10100204	0.0103	0.9744	0.0100	1.0634	0.0109	1.1947	0.0123
		10100204	0.0131	0.9744	0.0128	1.0634	0.0140	1.1947	0.0157
		10101201	1.0760	1.0391	1.1181	1.1216	1.2069	1.1806	1.2704
		10101201	1.0760	1.0391	1.1181	1.1216	1.2069	1.1806	1.2704
		10101201	1.0790	1.0391	1.1212	1.1216	1.2102	1.1806	1.2739
		10101201	1.3810	1.0391	1.4350	1.1216	1.5490	1.1806	1.6305
	Total		**4.6627**		**4.8420**		**5.2264**		**5.5044**

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
51-740-00081 61049	Cogentrix Virginia Leasing Corp	10100204	0.2927		0.7593	1.0913	0.8287	1.2261	0.9310
		10100204	0.3057		0.8093	1.0913	0.8833	1.2261	0.9923
		10100204	0.3624		0.8542	1.0913	0.9322	1.2261	1.0474
		10100204	0.4540		0.7782	1.0913	0.8493	1.2261	0.9542
		10100204	0.4732		0.8037	1.0913	0.8770	1.2261	0.9853
		10100204	0.5192		0.8279	1.0913	0.9035	1.2261	1.0151
	Total		**2.4071**		**4.8327**		**5.2740**		**5.9253**
51-740-00104 61329	Radva Corporation Portsmouth	10200603	0.0073	1.0000	0.0073	1.0000	0.0073	1.0000	0.0073
	Total		**0.0073**		**0.0073**		**0.0073**		**0.0073**
Suffolk									
51-800-00033 60302	Blair Bros Incorporated	30500202	0.0212	0.9713	0.0206	1.0309	0.0219	1.1363	0.0241
		30500208	0.0214	1.0000	0.0214	1.0000	0.0214	1.0000	0.0214
		30500201	0.1202	0.9713	0.1168	1.0309	0.1240	1.1363	0.1366
	Total		**0.1629**		**0.1588**		**0.1672**		**0.1821**
51-800-00091 60998	Ciba Specialty Chemicals Corporation	10200602	0.0024	1.0000	0.0024	1.0000	0.0024	1.0000	0.0024
		10200602	0.0043	1.0000	0.0043	1.0000	0.0043	1.0000	0.0043
		20100102	0.0585	0.7725	0.0452	0.8049	0.0471	0.8128	0.0476
	Total		**0.0652**		**0.0519**		**0.0538**		**0.0543**
51-800-00101 61083	Branscome Inc - Suffolk	30500205	0.0033	0.9713	0.0032	1.0309	0.0034	1.1363	0.0038
		30500206	0.0087	1.0000	0.0087	1.0000	0.0087	1.0000	0.0087
		30500208	0.0129	1.0000	0.0129	1.0000	0.0129	1.0000	0.0129
		30500205	0.0394	0.9713	0.0383	1.0309	0.0407	1.1363	0.0448
	Total		**0.0644**		**0.0632**		**0.0658**		**0.0703**
51-800-00109 61137	Pow.Gen.(Suffolk) & Suff Energy Partners	20100202	0.1181	1.2886	0.1522	1.7237	0.2036	1.7988	0.2125
	Total		**0.1181**		**0.1522**		**0.2036**		**0.2125**
51-800-00121 61341	SPSA Regional Landfill 1 Bob Foeller Drive	50300601	0.0097	1.0852	0.0106	1.2629	0.0123	1.4596	0.0142
	Total		**0.0097**		**0.0106**		**0.0123**		**0.0142**
Virginia Beach									
51-810-00001 60023	Contractors Paving	30500206	0.0127	1.0000	0.0127	1.0000	0.0127	1.0000	0.0127
		30500201	0.0150	0.9713	0.0145	1.0309	0.0154	1.1363	0.0170

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
	Company, Incorporated 121 Chest	30500201	0.0427	0.9713	0.0414	1.0309	0.0440	1.1363	0.0485
	Total		**0.0703**		**0.0687**		**0.0721**		**0.0782**
51-810-00004 60294	**US Navy Naval Air Station Oceana**	10300501	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		20200102	0.0057	1.0000	0.0057	1.0000	0.0057	1.0000	0.0057
		20400101	0.0063	0.9260	0.0058	1.1148	0.0070	1.3616	0.0086
		10200504	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		10300602	0.0148	1.0000	0.0148	1.0000	0.0148	1.0000	0.0148
		10300602	0.0154	1.0000	0.0154	1.0000	0.0154	1.0000	0.0154
		10200504	0.0194	1.0000	0.0194	1.0000	0.0194	1.0000	0.0194
		10200504	0.0212	1.0000	0.0212	1.0000	0.0212	1.0000	0.0212
		20100102	0.0310	0.7725	0.0240	0.8049	0.0250	0.8128	0.0252
		20400101	0.0581	0.9260	0.0538	1.1148	0.0648	1.3616	0.0792
		10200603	0.0804	1.0000	0.0804	1.0000	0.0804	1.0000	0.0804
		20400101	0.2479	0.9260	0.2296	1.1148	0.2764	1.3616	0.3376
		10300602	0.5356	1.0000	0.5356	1.0000	0.5356	1.0000	0.5356
	Total		**1.0439**		**1.0137**		**1.0737**		**1.1511**
51-810-00005 60330	**US Army Ft. Story**	10300603	0.0017	1.0000	0.0017	1.0000	0.0017	1.0000	0.0017
		20200102	0.0035	1.0000	0.0035	1.0000	0.0035	1.0000	0.0035
		10300501	0.0040	1.0000	0.0040	1.0000	0.0040	1.0000	0.0040
	Total		**0.0092**		**0.0092**		**0.0092**		**0.0092**
51-810-00006 60280	**US Navy Dam Neck Annex**	10301002	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50200101	0.0000	1.0654	0.0000	1.1836	0.0000	1.3151	0.0000
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		20100102	0.0019	0.7725	0.0015	0.8049	0.0016	0.8128	0.0016
		10300603	0.0057	1.0000	0.0057	1.0000	0.0057	1.0000	0.0057
		10200602	0.0060	1.0000	0.0060	1.0000	0.0060	1.0000	0.0060
		10200602	0.0062	1.0000	0.0062	1.0000	0.0062	1.0000	0.0062
		10200504	0.0143	1.0000	0.0143	1.0000	0.0143	1.0000	0.0143
		10200504	0.0192	1.0000	0.0192	1.0000	0.0192	1.0000	0.0192
		20200401	0.0209	1.0000	0.0209	1.0000	0.0209	1.0000	0.0209
		20100102	0.0421	0.7725	0.0325	0.8049	0.0339	0.8128	0.0342
	Total		**0.1174**		**0.1073**		**0.1088**		**0.1091**

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			NOx (tpd)	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**	**Growth Factor**	**NOx (tpd)**
51-810-00013 60033	**US Navy Little Creek Amphibious Base**	10500205	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10500214	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10500206	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		20300101	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300209	0.1062	1.0000	0.1062	1.0000	0.1062	1.0000	0.1062
		20100102	0.1609	0.7725	0.1243	0.8049	0.1295	0.8128	0.1308
		10300209	0.1668	1.0000	0.1668	1.0000	0.1668	1.0000	0.1668
	Total		**0.4342**		**0.3976**		**0.4028**		**0.4040**
51-810-00034 60431	**HRSD Chesapeake-Elizabeth Sewage Treatment Plant**	50200506	0.0396	1.0654	0.0422	1.1836	0.0469	1.3151	0.0521
		20200401	0.1508	1.0000	0.1508	1.0000	0.1508	1.0000	0.1508
	Total		**0.1904**		**0.1929**		**0.1976**		**0.2028**
51-810-00044 60995	**Stihl Incorporated**	20400401	0.0057	0.9260	0.0053	1.1148	0.0064	1.3616	0.0078
	Total		**0.0057**		**0.0053**		**0.0064**		**0.0078**
51-810-00060 60741	**Servitex Incorporated**	10300602	0.0051	1.0000	0.0051	1.0000	0.0051	1.0000	0.0051
		10200501	0.2051	1.0000	0.2051	1.0000	0.2051	1.0000	0.2051
	Total		**0.2103**		**0.2103**		**0.2103**		**0.2103**
51-810-00105 61322	**Virginia Beach Landfill II**	20200102	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50100410	0.0075	1.0579	0.0079	1.1891	0.0089	1.3358	0.0100
	Total		**0.0075**		**0.0079**		**0.0089**		**0.0100**
51-810-00109 61354	**Storopack Incorporated**	10200603	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
	Total		**0.0014**		**0.0014**		**0.0014**		**0.0014**
51-810-00117 61423	**INGENCO - Virginia Beach**	20400304	0.2255	0.9260	0.2088	1.1148	0.2514	1.3616	0.3071
		20200102	1.0160	1.0000	1.0160	1.0000	1.0160	1.0000	1.0160
	Total		**1.2415**		**1.2248**		**1.2674**		**1.3231**
Williamsburg									
51-830-00030 60401	**Colonial Williamsburg Foundation**	10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		20100202	0.0002	1.2886	0.0003	1.7237	0.0004	1.7988	0.0004
		10300603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10300603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003

Table 3.2.2-2									
Projected NOx Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)	Growth Factor	NOx (tpd)
		10300603	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10300603	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10300603	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		10300603	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		10300603	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
		10300603	0.0022	1.0000	0.0022	1.0000	0.0022	1.0000	0.0022
		10300602	0.0032	1.0000	0.0032	1.0000	0.0032	1.0000	0.0032
		10300603	0.0036	1.0000	0.0036	1.0000	0.0036	1.0000	0.0036
		10300602	0.0068	1.0000	0.0068	1.0000	0.0068	1.0000	0.0068
		10300602	0.0246	1.0000	0.0246	1.0000	0.0246	1.0000	0.0246
	Total		**0.0453**		**0.0454**		**0.0455**		**0.0455**
Non-attainment Area Total			**91.4030**		**62.5355**		**69.3328**		**75.2412**

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			CO (tpd)	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**
Gloucester									
51-073-0003240920	**Middle Peninsula Landfill**	50100410	0.0058	1.0579	0.0062	1.1891	0.0069	1.3358	0.0078
		50100410	0.0117	1.0579	0.0123	1.1891	0.0139	1.3358	0.0156
	Total		**0.0175**		**0.0185**		**0.0208**		**0.0234**
51-073-5200452004	**Middle Peninsula Landfill**	10100501	0.0118	0.7725	0.0091	0.8049	0.0095	0.8128	0.0096
	Total		**0.0118**		**0.0091**		**0.0095**		**0.0096**
Isle of Weight									
51-093-0000460102	**Walters Grain and Supply**	10201002	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
	Total		**0.0002**		**0.0002**		**0.0002**		**0.0002**
51-093-0000660214	**International Paper Company**	20100101	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100101	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		39000489	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		39000489	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		30700105	0.0024	1.1006	0.0027	1.2778	0.0031	1.4808	0.0036
		30700105	0.0026	1.1006	0.0029	1.2778	0.0033	1.4808	0.0039
		10200401	0.0031	1.0000	0.0031	1.0000	0.0031	1.0000	0.0031
		39000489	0.0050	1.0000	0.0050	1.0000	0.0050	1.0000	0.0050
		30700105	0.0058	1.1006	0.0064	1.2778	0.0074	1.4808	0.0086
		10200401	0.0089	1.0000	0.0089	1.0000	0.0089	1.0000	0.0089
		20100201	0.0120	1.2886	0.0154	1.7237	0.0207	1.7988	0.0216
		10200401	0.0122	1.0000	0.0122	1.0000	0.0122	1.0000	0.0122
		10200202	0.0161	1.0000	0.0161	1.0000	0.0161	1.0000	0.0161
		30700106	0.0218	1.1006	0.0239	1.2778	0.0278	1.4808	0.0322
		30700106	0.0373	1.1006	0.0411	1.2778	0.0477	1.4808	0.0553
		10200202	0.0459	1.0000	0.0459	1.0000	0.0459	1.0000	0.0459
		30700106	0.0463	1.1006	0.0510	1.2778	0.0592	1.4808	0.0686
		10200204	0.4602	1.0000	0.4602	1.0000	0.4602	1.0000	0.4602
		30700104	0.6349	1.1006	0.6988	1.2778	0.8113	1.4808	0.9402
		30700104	0.6530	1.1006	0.7187	1.2778	0.8344	1.4808	0.9669
		10200204	0.6764	1.0000	0.6764	1.0000	0.6764	1.0000	0.6764
		10200902	1.5810	1.0000	1.5810	1.0000	1.5810	1.0000	1.5810
		10200902	1.7540	1.0000	1.7540	1.0000	1.7540	1.0000	1.7540
		30700104	2.5090	1.1006	2.7614	1.2778	3.2060	1.4808	3.7152
	Total		**8.4891**		**8.8862**		**9.5849**		**10.3800**

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
51-093-00011 60270	**Smithfield Foods Inc**	10500106	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
51-093-00011 60270	**Smithfield Foods Inc**	30201302	0.0000	1.0699	0.0000	1.1761	0.0000	1.2963	0.0000
		30291001	0.0011	1.0672	0.0012	1.1745	0.0013	1.2946	0.0015
		10500106	0.0027	1.0000	0.0027	1.0000	0.0027	1.0000	0.0027
		10200602	0.0031	1.0000	0.0031	1.0000	0.0031	1.0000	0.0031
		30299998	0.0038	1.0672	0.0041	1.1745	0.0045	1.2946	0.0050
		30291001	0.0039	1.0672	0.0041	1.1745	0.0046	1.2946	0.0050
		30290003	0.0043	1.0000	0.0043	1.0000	0.0043	1.0000	0.0043
		10200602	0.0051	1.0000	0.0051	1.0000	0.0051	1.0000	0.0051
		10200602	0.0064	1.0000	0.0064	1.0000	0.0064	1.0000	0.0064
		10200602	0.0085	1.0000	0.0085	1.0000	0.0085	1.0000	0.0085
		30291001	0.0105	1.0672	0.0112	1.1745	0.0123	1.2946	0.0136
		10200602	0.0110	1.0000	0.0110	1.0000	0.0110	1.0000	0.0110
		10200602	0.0163	1.0000	0.0163	1.0000	0.0163	1.0000	0.0163
		10200602	0.0247	1.0000	0.0247	1.0000	0.0247	1.0000	0.0247
		10200602	0.0263	1.0000	0.0263	1.0000	0.0263	1.0000	0.0263
		10200602	0.0305	1.0000	0.0305	1.0000	0.0305	1.0000	0.0305
		10200602	0.0307	1.0000	0.0307	1.0000	0.0307	1.0000	0.0307
	Total		**0.1889**		**0.1902**		**0.1923**		**0.1946**
51-093-00018 60171	**Nevamar Company LLC**	10200502	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		30703096	0.0211	1.1357	0.0240	1.4325	0.0303	1.7497	0.0370
		30703096	0.0310	1.1357	0.0352	1.4325	0.0444	1.7497	0.0542
		10200905	0.0320	1.0000	0.0320	1.0000	0.0320	1.0000	0.0320
		10200905	0.2496	1.0000	0.2496	1.0000	0.2496	1.0000	0.2496
	Total		**0.3338**		**0.3408**		**0.3563**		**0.3728**
James City									
51-095-00008 60065	**Ball Metal Beverage Container Corporation**	10200602	0.0021	1.0000	0.0021	1.0000	0.0021	1.0000	0.0021
		20200102	0.0027	1.0000	0.0027	1.0000	0.0027	1.0000	0.0027
		39000689	0.0033	1.0000	0.0033	1.0000	0.0033	1.0000	0.0033
		39000689	0.0033	1.0000	0.0033	1.0000	0.0033	1.0000	0.0033
		39000689	0.0060	1.0000	0.0060	1.0000	0.0060	1.0000	0.0060
		39000689	0.0060	1.0000	0.0060	1.0000	0.0060	1.0000	0.0060
	Total		**0.0233**		**0.0233**		**0.0233**		**0.0233**
51-095-00010 60152	**Anheuser-Busch Incorporated**	10200401	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10200401	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10200401	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10200401	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		39000689	0.0073	1.0000	0.0073	1.0000	0.0073	1.0000	0.0073

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
		39000689	0.0073	1.0000	0.0073	1.0000	0.0073	1.0000	0.0073
		39000689	0.0114	1.0000	0.0114	1.0000	0.0114	1.0000	0.0114
		10200602	0.0362	1.0000	0.0362	1.0000	0.0362	1.0000	0.0362
		10200602	0.0369	1.0000	0.0369	1.0000	0.0369	1.0000	0.0369
		10200602	0.0369	1.0000	0.0369	1.0000	0.0369	1.0000	0.0369
		10200602	0.0369	1.0000	0.0369	1.0000	0.0369	1.0000	0.0369
		10200602	0.0464	1.0000	0.0464	1.0000	0.0464	1.0000	0.0464
	Total		**0.2218**		**0.2218**		**0.2218**		**0.2218**
51-095-00022 60923	**Owens-Brockway Glass Container**	39000699	0.0044	1.0000	0.0044	1.0000	0.0044	1.0000	0.0044
		39000699	0.0060	1.0000	0.0060	1.0000	0.0060	1.0000	0.0060
		30501402	0.0244	1.1133	0.0272	1.3859	0.0338	1.6928	0.0413
		30501402	0.0259	1.1133	0.0288	1.3859	0.0359	1.6928	0.0438
	Total		**0.0607**		**0.0664**		**0.0801**		**0.0955**
51-095-00023 60355	**HRSD Williamsburg Sewage Treatment Plant**	20200401	0.0109	1.0000	0.0109	1.0000	0.0109	1.0000	0.0109
		50100506	0.3071	1.0579	0.3248	1.1891	0.3651	1.3358	0.4102
	Total		**0.3180**		**0.3357**		**0.3760**		**0.4211**
51-095-00024 60611	**Branscome Inc - Lee Hall**	30500205	0.0097	0.9713	0.0094	1.0309	0.0100	1.1363	0.0110
		30500205	0.0113	0.9713	0.0110	1.0309	0.0117	1.1363	0.0129
	Total		**0.0210**		**0.0204**		**0.0216**		**0.0238**
York									
51-199-00001 60137	**Dominion - Yorktown Power Station**	10100501	0.0003	0.7725	0.0002	0.8049	0.0002	0.8128	0.0002
		10100604	0.0004	1.2886	0.0005	1.7237	0.0007	1.7988	0.0007
		50300506	0.0006	1.0852	0.0006	1.2629	0.0007	1.4596	0.0009
		10100501	0.0007	0.7725	0.0006	0.8049	0.0006	0.8128	0.0006
		10100501	0.0008	0.7725	0.0006	0.8049	0.0006	0.8128	0.0006
		10200501	0.0034	1.0000	0.0034	1.0000	0.0034	1.0000	0.0034
		10100701	0.0104	1.0000	0.0104	1.0000	0.0104	1.0000	0.0104
		10100604	0.0311	1.2886	0.0401	1.7237	0.0536	1.7988	0.0560
		10100212	0.2895	0.9744	0.2821	1.0634	0.3078	1.1947	0.3458
		10100212	0.3200	0.9744	0.3118	1.0634	0.3403	1.1947	0.3823
		10100404	1.4150	0.4836	0.6843	0.4185	0.5921	0.2626	0.3716
	Total		**2.0722**		**1.3346**		**1.3106**		**1.1726**
51-199-00002 60301	**US Navy Naval Weapons Station Yorktown**	10200504	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10200602	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010
		10200501	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		20200102	0.0064	1.0000	0.0064	1.0000	0.0064	1.0000	0.0064

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
		20200401	0.0097	1.0000	0.0097	1.0000	0.0097	1.0000	0.0097
		20200301	0.0284	1.0000	0.0284	1.0000	0.0284	1.0000	0.0284
		20200102	0.0485	1.0000	0.0485	1.0000	0.0485	1.0000	0.0485
	Total		**0.0960**		**0.0960**		**0.0960**		**0.0960**
51-199-00004 60116	**Giant Yorktown Refinery**	10200701	0.0050	1.0000	0.0050	1.0000	0.0050	1.0000	0.0050
		10200701	0.0174	1.0000	0.0174	1.0000	0.0174	1.0000	0.0174
		10200701	0.0659	1.0000	0.0659	1.0000	0.0659	1.0000	0.0659
		30600104	0.0771	1.0000	0.0771	1.0000	0.0771	1.0000	0.0771
		30600104	0.1387	1.0000	0.1387	1.0000	0.1387	1.0000	0.1387
		30600104	0.2258	1.0000	0.2258	1.0000	0.2258	1.0000	0.2258
		30600201	63.0150	1.0010	63.0810	1.0323	65.0521	1.0777	67.9124
	Total		**63.5449**		**63.6110**		**65.5820**		**68.4423**
Chesapeake									
51-550-00004 60077	**Lafarge Calcium Aluminates Incorporated**	30500606	0.0076	1.0552	0.0080	1.1629	0.0088	1.2612	0.0096
	Total		**0.0076**		**0.0080**		**0.0088**		**0.0096**
51-550-00016 60050	**Kinder Morgan/Elizabeth River Terminals, LLC**	20200102	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
	Total		**0.0014**		**0.0014**		**0.0014**		**0.0014**
51-550-00023 60149	**IMTT Chesapeake**	10200602	0.0801	1.0000	0.0801	1.0000	0.0801	1.0000	0.0801
	Total		**0.0801**		**0.0801**		**0.0801**		**0.0801**
51-550-00025 60161	**Citgo Petroleum Chesapeake Terminal**	40400153	0.0134	1.0029	0.0135	1.0866	0.0146	1.1977	0.0161
	Total		**0.0134**		**0.0135**		**0.0146**		**0.0161**
51-550-00026 60163	**Dominion - Chesapeake**	20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20100109	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		10100501	0.0008	0.7725	0.0006	0.8049	0.0006	0.8128	0.0006
		10100501	0.0018	0.7725	0.0014	0.8049	0.0015	0.8128	0.0015

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
		10100501	0.0021	0.7725	0.0016	0.8049	0.0017	0.8128	0.0017
		10100501	0.0031	0.7725	0.0024	0.8049	0.0025	0.8128	0.0025
		10100212	0.2488	0.9744	0.2424	1.0634	0.2645	1.0636	0.2646
		10100212	0.2539	0.9744	0.2474	1.0634	0.2700	1.1947	0.3033
51-550-00026 60163	Dominion - Chesapeake	10100202	0.3026	0.9744	0.2949	1.0634	0.3218	1.1947	0.3615
		10100212	0.4384	0.9744	0.4272	1.0634	0.4662	1.0636	0.4663
			1.2516		**1.2179**		**1.3288**		**1.4022**
51-550-00028 60179	Apex Oil Company - Chesapeake Terminal Division	10200504	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010
		10200502	0.0115	1.0000	0.0115	1.0000	0.0115	1.0000	0.0115
	Total		**0.0125**		**0.0125**		**0.0125**		**0.0125**
51-550-00035 60242	Transmon-taigne Product Services	40600141	0.0042	1.0129	0.0042	1.0447	0.0044	1.0792	0.0045
		40600141	0.0071	1.0129	0.0072	1.0447	0.0074	1.0792	0.0076
	Total		**0.0113**		**0.0114**		**0.0118**		**0.0122**
51-550-00044 60127	Royster-Clark Incorporated - Chesapeake Plant	10200501	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		10200501	0.0028	1.0000	0.0028	1.0000	0.0028	1.0000	0.0028
	Total		**0.0037**		**0.0037**		**0.0037**		**0.0037**
51-550-00052 60342	NOVA Chemicals Incorporated	10200401	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200402	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200602	0.0022	1.0000	0.0022	1.0000	0.0022	1.0000	0.0022
		10200602	0.0038	1.0000	0.0038	1.0000	0.0038	1.0000	0.0038
		10200603	0.0042	1.0000	0.0042	1.0000	0.0042	1.0000	0.0042
		10200602	0.0051	1.0000	0.0051	1.0000	0.0051	1.0000	0.0051
		20200102	0.0101	1.0000	0.0101	1.0000	0.0101	1.0000	0.0101
	Total		**0.0255**		**0.0255**		**0.0255**		**0.0255**
51-550-00056 60851	Chesapeake Hardwood Products Inc	40201001	0.0200	1.0000	0.0200	1.0000	0.0200	1.0000	0.0200
	Total		**0.0200**		**0.0200**		**0.0200**		**0.0200**
51-550-00092 60920	Amerada Hess Corporation - Chesapeake	10200401	0.0018	1.0000	0.0018	1.0000	0.0018	1.0000	0.0018
	Total		**0.0018**		**0.0018**		**0.0018**		**0.0018**
51-550-00161	Commonwea	20100109	0.0392	0.7725	0.0303	0.8049	0.0316	0.8128	0.0319

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			CO (tpd)	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**
61108	**lth Atlantic Limited Partnership-Chesapeake**	20100109	0.0392	0.7725	0.0303	0.8049	0.0316	0.8128	0.0319
		20100109	0.0392	0.7725	0.0303	0.8049	0.0316	0.8128	0.0319
		20100201	0.2267	1.2886	0.2921	1.7237	0.3907	1.7988	0.4077
		20100201	0.2267	1.2886	0.2921	1.7237	0.3907	1.7988	0.4077
		20100201	0.2267	1.2886	0.2921	1.7237	0.3907	1.7988	0.4077
	Total		**0.7977**		**0.9672**		**1.2669**		**1.3189**
Hampton									
51-650-00006 60051	**US NASA - Langley Research Center**	10200602	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10201002	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300503	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300501	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10300503	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10300501	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10300603	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		10300602	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		10300602	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		20200102	0.0035	1.0000	0.0035	1.0000	0.0035	1.0000	0.0035
		39999992	0.0048	1.1585	0.0056	1.4790	0.0072	1.8064	0.0087
		10300601	0.0066	1.0000	0.0066	1.0000	0.0066	1.0000	0.0066
		10300601	0.0437	1.0000	0.0437	1.0000	0.0437	1.0000	0.0437
		10300601	0.0774	1.0000	0.0774	1.0000	0.0774	1.0000	0.0774
	Total		**0.1434**		**0.1441**		**0.1457**		**0.1473**
51-650-00007 60059	**US Air Force Base Langley**	20300101	0.0040	1.0000	0.0040	1.0000	0.0040	1.0000	0.0040
		39999993	0.0188	1.1585	0.0218	1.4790	0.0278	1.8064	0.0340
	Total		**0.0228**		**0.0258**		**0.0318**		**0.0380**
51-650-00010 60106	**Hampton University**	10300903	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200603	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10200501	0.0022	1.0000	0.0022	1.0000	0.0022	1.0000	0.0022
		10200501	0.0030	1.0000	0.0030	1.0000	0.0030	1.0000	0.0030
		10200501	0.0086	1.0000	0.0086	1.0000	0.0086	1.0000	0.0086
		10300208	0.0468	1.0000	0.0468	1.0000	0.0468	1.0000	0.0468
	Total		**0.0611**		**0.0611**		**0.0611**		**0.0611**
51-650-00011 60141	**US Department of Veterans Affairs Medical Ctr**	10300501	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10300602	0.0055	1.0000	0.0055	1.0000	0.0055	1.0000	0.0055
		30700808	0.0137	1.1357	0.0155	1.4325	0.0196	1.7497	0.0239

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			CO (tpd)	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**
	Total		**0.0200**		**0.0218**		**0.0259**		**0.0302**
51-650-00061 61019	**Hampton/ NASA Steam Plant**	50100102	0.0091	1.0579	0.0097	1.1891	0.0109	1.3358	0.0122
		50100102	0.0106	1.0579	0.0112	1.1891	0.0126	1.3358	0.0142
	Total		**0.0198**		**0.0209**		**0.0235**		**0.0264**
51-650-00069 60636	**Howmet Castings, an Alcoa Company**	10200603	0.0354	1.0000	0.0354	1.0000	0.0354	1.0000	0.0354
	Total		**0.0354**		**0.0354**		**0.0354**		**0.0354**
51-650-00093 61291	**Bethel Landfill**	10201402	0.0071	1.0000	0.0071	1.0000	0.0071	1.0000	0.0071
		50200601	0.1045	1.0654	0.1114	1.1836	0.1237	1.3151	0.1375
	Total		**0.1116**		**0.1185**		**0.1308**		**0.1446**
Newport News									
51-700-00002 60333	**US Army Fort Eustis (Army Transport Center)**	20200102	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		20200102	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10300501	0.0022	1.0000	0.0022	1.0000	0.0022	1.0000	0.0022
		10300602	0.0367	1.0000	0.0367	1.0000	0.0367	1.0000	0.0367
	Total		**0.0404**		**0.0404**		**0.0404**		**0.0404**
51-700-00013 60153	**Newport News Shipbuilding**	50300101	0.0000	1.0852	0.0000	1.2629	0.0000	1.4596	0.0000
		10301002	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10200603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		39001089	0.0026	1.0000	0.0026	1.0000	0.0026	1.0000	0.0026
		10200401	0.0146	1.0000	0.0146	1.0000	0.0146	1.0000	0.0146
		10200401	0.0146	1.0000	0.0146	1.0000	0.0146	1.0000	0.0146
		10200401	0.0146	1.0000	0.0146	1.0000	0.0146	1.0000	0.0146
		10200401	0.0189	1.0000	0.0189	1.0000	0.0189	1.0000	0.0189
		10200603	0.1448	1.0000	0.1448	1.0000	0.1448	1.0000	0.1448
	Total		**0.2108**		**0.2108**		**0.2108**		**0.2108**
51-700-00019 60208	**Mica Company of Canada Inc**	10200603	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
	Total		**0.0012**		**0.0012**		**0.0012**		**0.0012**
51-700-00066 60913	**Shorewood Packaging**	10200603	0.0078	1.0000	0.0078	1.0000	0.0078	1.0000	0.0078
	Total		**0.0078**		**0.0078**		**0.0078**		**0.0078**
51-700-00068	**HRSD Boat**	20200102	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
60351	Harbor Sewage Treatment Plant	20200401	0.0220	1.0000	0.0220	1.0000	0.0220	1.0000	0.0220
		20200401	0.0220	1.0000	0.0220	1.0000	0.0220	1.0000	0.0220
		50200506	0.3209	1.0654	0.3419	1.1836	0.3798	1.3151	0.4220
	Total		**0.3658**		**0.3868**		**0.4247**		**0.4670**
51-700-00089 61078	Basic Construction - Newport News	30500201	0.1737	0.9713	0.1687	1.0309	0.1791	1.1363	0.1974
	Total		**0.1737**		**0.1687**		**0.1791**		**0.1974**
51-700-00091 61085	Kinyo Virginia Incorporated	10200603	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		10200602	0.0081	1.0000	0.0081	1.0000	0.0081	1.0000	0.0081
	Total		**0.0101**		**0.0101**		**0.0101**		**0.0101**
Norfolk									
51-710-00006 60246	Norfolk Shipbuilding and Drydock - Berkley	39000599	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200401	0.0016	1.0000	0.0016	1.0000	0.0016	1.0000	0.0016
		10200401	0.0021	1.0000	0.0021	1.0000	0.0021	1.0000	0.0021
		10200401	0.0025	1.0000	0.0025	1.0000	0.0025	1.0000	0.0025
		20200102	0.0357	1.0000	0.0357	1.0000	0.0357	1.0000	0.0357
	Total		**0.0420**		**0.0420**		**0.0420**		**0.0420**
51-710-00009 60268	Ford Motor Company Norfolk	39000689	0.1288	1.0000	0.1288	1.0000	0.1288	1.0000	0.1288
	Total		**0.1288**		**0.1288**		**0.1288**		**0.1288**
51-710-00034 60134	Metro Machine Corporation	10200602	0.0029	1.0000	0.0029	1.0000	0.0029	1.0000	0.0029
		10200602	0.0034	1.0000	0.0034	1.0000	0.0034	1.0000	0.0034
	Total		**0.0063**		**0.0063**		**0.0063**		**0.0063**
51-710-00042 60164	Sentara Norfolk General Hospital	10300401	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		10300401	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011
		10300401	0.0021	1.0000	0.0021	1.0000	0.0021	1.0000	0.0021
		10300602	0.0060	1.0000	0.0060	1.0000	0.0060	1.0000	0.0060
		10300602	0.0074	1.0000	0.0074	1.0000	0.0074	1.0000	0.0074
		20200401	0.0089	1.0000	0.0089	1.0000	0.0089	1.0000	0.0089
		10300602	0.0108	1.0000	0.0108	1.0000	0.0108	1.0000	0.0108
	Total		**0.0374**		**0.0374**		**0.0374**		**0.0374**
51-710-00068 60234	U S Gypsum Co	39000689	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		39000689	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		39000689	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10200603	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
	Total		**0.0015**		**0.0015**		**0.0015**		**0.0015**
51-710-00113	J H Miles &	10200504	0.0011	1.0000	0.0011	1.0000	0.0011	1.0000	0.0011

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
60750	Company Incorporated	10200504	0.0017	1.0000	0.0017	1.0000	0.0017	1.0000	0.0017
	Total		0.0028		0.0028		0.0028		0.0028
51-710-00194 60941	US Navy Norfolk Naval Base-Sewells Point	10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		39999992	0.0001	1.1585	0.0001	1.4790	0.0001	1.8064	0.0001
		10200401	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10200501	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200402	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		39999992	0.0003	1.1585	0.0004	1.4790	0.0005	1.8064	0.0006
		10200501	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		39999992	0.0008	1.1585	0.0010	1.4790	0.0012	1.8064	0.0015
51-710-00194 60941	US Navy Norfolk Naval Base-Sewells Point	39999992	0.0017	1.1585	0.0019	1.4790	0.0024	1.8064	0.0030
		39999992	0.0018	1.1585	0.0020	1.4790	0.0026	1.8064	0.0032
		10200501	0.0018	1.0000	0.0018	1.0000	0.0018	1.0000	0.0018
		10200404	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		10200501	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		10200502	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		10200501	0.0029	1.0000	0.0029	1.0000	0.0029	1.0000	0.0029
		10200501	0.0037	1.0000	0.0037	1.0000	0.0037	1.0000	0.0037
		10200404	0.0044	1.0000	0.0044	1.0000	0.0044	1.0000	0.0044
		39999992	0.0047	1.1585	0.0054	1.4790	0.0069	1.8064	0.0084
		10200404	0.0047	1.0000	0.0047	1.0000	0.0047	1.0000	0.0047
		10200404	0.0048	1.0000	0.0048	1.0000	0.0048	1.0000	0.0048
		20200401	0.0058	1.0000	0.0058	1.0000	0.0058	1.0000	0.0058
		20100102	0.0067	0.7725	0.0052	0.8049	0.0054	0.8128	0.0055
		10200601	0.0169	1.0000	0.0169	1.0000	0.0169	1.0000	0.0169
		10200601	0.0206	1.0000	0.0206	1.0000	0.0206	1.0000	0.0206
		10200601	0.0235	1.0000	0.0235	1.0000	0.0235	1.0000	0.0235
		10200601	0.0761	1.0000	0.0761	1.0000	0.0761	1.0000	0.0761
		10200601	0.0885	1.0000	0.0885	1.0000	0.0885	1.0000	0.0885
		10200601	0.1227	1.0000	0.1227	1.0000	0.1227	1.0000	0.1227
	Total		0.4005		0.4005		0.4037		0.4068
51-710-00196 60349	HRSD Army Base Sewage Treatment Plant	20100101	0.0000	0.7725	0.0000	0.8049	0.0000	0.8128	0.0000
		20200102	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50200506	0.2001	1.0654	0.2132	1.1836	0.2368	1.3151	0.2631
	Total		0.2001		0.2132		0.2368		0.2632
51-710-00197 60350	HRSD Virginia Initiative Plant	20100102	0.0107	0.7725	0.0083	0.8049	0.0086	0.8128	0.0087
		50200506	0.3282	1.0654	0.3497	1.1836	0.3885	1.3151	0.4316

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
	Total		**0.3389**		**0.3580**		**0.3971**		**0.4403**
51-710-00219 61038	**American Waste Industries, Incorporated**	50200505	0.0003	1.0702	0.0003	1.1946	0.0003	1.3228	0.0003
		50200505	0.0003	1.0702	0.0003	1.1946	0.0003	1.3228	0.0004
		10200603	0.0013	1.0000	0.0013	1.0000	0.0013	1.0000	0.0013
	Total		**0.0018**		**0.0019**		**0.0019**		**0.0020**
51-710-00263 61336	**Flowers Baking Company of Norfolk**	10200603	0.0058	1.0000	0.0058	1.0000	0.0058	1.0000	0.0058
	Total		**0.0058**		**0.0058**		**0.0058**		**0.0058**
51-710-00269 61351	**Bock Drum Company, Incorporated**	10200501	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
	Total		**0.0002**		**0.0002**		**0.0002**		**0.0002**
Portsmouth									
51-740-00006 60326	**US Navy - Norfolk Naval Shipyard**	10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300603	0.0004	1.0000	0.0004	1.0000	0.0004	1.0000	0.0004
		10300603	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		20200401	0.0034	1.0000	0.0034	1.0000	0.0034	1.0000	0.0034
		20200102	0.0080	1.0000	0.0080	1.0000	0.0080	1.0000	0.0080
		20300101	0.0126	1.0000	0.0126	1.0000	0.0126	1.0000	0.0126
		20200401	0.3632	1.0000	0.3632	1.0000	0.3632	1.0000	0.3632
		20200102	5.8420	1.0000	5.8420	1.0000	5.8420	1.0000	5.8420
	Total		**6.2302**		**6.2302**		**6.2302**		**6.2302**
51-740-00007 60293	**US Navy Portsmouth Naval Hospital**	10300502	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300602	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		10300502	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		10300502	0.0013	1.0000	0.0013	1.0000	0.0013	1.0000	0.0013
		20100102	0.0084	0.7725	0.0065	0.8049	0.0068	0.8128	0.0068
		10300602	0.0088	1.0000	0.0088	1.0000	0.0088	1.0000	0.0088
		10300602	0.0135	1.0000	0.0135	1.0000	0.0135	1.0000	0.0135
		20200401	0.0849	1.0000	0.0849	1.0000	0.0849	1.0000	0.0849
	Total		**0.1190**		**0.1171**		**0.1174**		**0.1175**
51-740-00075 61000	**APAC Virginia Incorporated 800 Constitution Avenue**	30500201	0.0037	0.9713	0.0036	1.0309	0.0038	1.1363	0.0042
		30500201	0.2253	0.9713	0.2189	1.0309	0.2323	1.1363	0.2560
	Total		**0.2290**		**0.2224**		**0.2361**		**0.2602**

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			CO (tpd)	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**
51-740-00078 61018	**SPSA Refuse Derived Fuel Plant**	20200102	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10200501	0.0010	1.0000	0.0010	1.0000	0.0010	1.0000	0.0010
		10100204	0.0037	0.9744	0.0036	1.0634	0.0040	1.1947	0.0045
		10100204	0.0037	0.9744	0.0036	1.0634	0.0040	1.1947	0.0045
		10100204	0.0037	0.9744	0.0036	1.0634	0.0040	1.1947	0.0045
		10100204	0.0048	0.9744	0.0047	1.0634	0.0051	1.1947	0.0057
		10101201	0.4115	1.0391	0.4276	1.1216	0.4616	1.1806	0.4858
		10101201	0.4115	1.0391	0.4276	1.1216	0.4616	1.1806	0.4859
		10101201	0.4126	1.0391	0.4288	1.1216	0.4628	1.1806	0.4872
		10101201	0.5282	1.0391	0.5488	1.1216	0.5924	1.1806	0.6236
	Total		**1.7813**		**1.8498**		**1.9968**		**2.1030**
51-740-00081 61049	**Cogentrix Virginia Leasing Corp**	10100204	0.0184	0.9744	0.0179	1.0634	0.0195	1.1947	0.0219
		10100204	0.0192	0.9744	0.0187	1.0634	0.0204	1.0636	0.0204
		10100204	0.0211	0.9744	0.0205	1.0634	0.0224	1.1947	0.0252
51-740-00081 61049	**Cogentrix Virginia Leasing Corp**	10100204	0.0264	0.9744	0.0257	1.0634	0.0281	1.1947	0.0315
		10100204	0.0297	0.9744	0.0289	1.0634	0.0316	1.0636	0.0316
		10100204	0.0302	0.9744	0.0294	1.0634	0.0321	1.1947	0.0361
	Total		**0.1448**		**0.1411**		**0.1540**		**0.1666**
51-740-00104 61329	**Radva Corporation Portsmouth**	10200603	0.0061	1.0000	0.0061	1.0000	0.0061	1.0000	0.0061
	Total		**0.0061**		**0.0061**		**0.0061**		**0.0061**
Suffolk									
51-800-00033 60302	**Blair Bros Incorporated**	30500201	0.0488	0.9713	0.0474	1.0309	0.0503	1.1363	0.0555
	Total		**0.0488**		**0.0474**		**0.0503**		**0.0555**
51-800-00091 60998	**Ciba Specialty Chemicals Corporation**	10200602	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		10200602	0.0036	1.0000	0.0036	1.0000	0.0036	1.0000	0.0036
		10200602	0.0048	1.0000	0.0048	1.0000	0.0048	1.0000	0.0048
		20100102	0.0126	0.7725	0.0097	0.8049	0.0101	0.8128	0.0102
	Total		**0.0230**		**0.0201**		**0.0206**		**0.0207**
51-800-00101 61083	**Branscome Inc - Suffolk**	30500205	0.0062	0.9713	0.0060	1.0309	0.0064	1.1363	0.0070
		30500205	0.0189	0.9713	0.0184	1.0309	0.0195	1.1363	0.0215
	Total		**0.0251**		**0.0244**		**0.0259**		**0.0285**
51-800-00109 61137	**Pow.Gen.(Suffolk) & Suff Energy Partners**	20100202	0.1819	1.2886	0.2344	1.7237	0.3135	1.7988	0.3272
	Total		**0.1819**		**0.2344**		**0.3135**		**0.3272**

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	**Facility Name**	**SCC**	**2002**	**2005**		**2011**		**2018**	
			CO (tpd)	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**	**Growth Factor**	**CO (tpd)**
51-800-00121 61341	**SPSA Regional Landfill**	50300601	0.1824	1.0852	0.1979	1.2629	0.2303	1.4596	0.2662
	Total		**0.1824**		**0.1979**		**0.2303**		**0.2662**
Virginia Beach									
51-810-00001 60023	**Contractors Paving Company, Incorporated 121 Chest**	30500201	0.0173	0.9713	0.0168	1.0309	0.0179	1.1363	0.0197
		30500201	0.2037	0.9713	0.1978	1.0309	0.2100	1.1363	0.2315
	Total		**0.2210**		**0.2147**		**0.2278**		**0.2511**
51-810-00004 60294	**US Navy Naval Air St Oceana**	10300501	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10200504	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		20200102	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
51-810-00004 60294	**US Navy Naval Air Station Oceana**	10200504	0.0021	1.0000	0.0021	1.0000	0.0021	1.0000	0.0021
		10200504	0.0023	1.0000	0.0023	1.0000	0.0023	1.0000	0.0023
		20100102	0.0067	0.7725	0.0052	0.8049	0.0054	0.8128	0.0054
		20400101	0.0116	0.9260	0.0107	1.1148	0.0129	1.3616	0.0158
		10300602	0.0124	1.0000	0.0124	1.0000	0.0124	1.0000	0.0124
		10300602	0.0129	1.0000	0.0129	1.0000	0.0129	1.0000	0.0129
		10200603	0.0675	1.0000	0.0675	1.0000	0.0675	1.0000	0.0675
		20400101	0.0708	0.9260	0.0655	1.1148	0.0789	1.3616	0.0963
		20400101	0.2859	0.9260	0.2647	1.1148	0.3187	1.3616	0.3892
		10300602	0.4499	1.0000	0.4499	1.0000	0.4499	1.0000	0.4499
	Total		**0.9242**		**0.8954**		**0.9651**		**1.0561**
51-810-00005 60330	**US Army Ft. Story**	20200102	0.0007	1.0000	0.0007	1.0000	0.0007	1.0000	0.0007
		10300501	0.0008	1.0000	0.0008	1.0000	0.0008	1.0000	0.0008
		10300603	0.0014	1.0000	0.0014	1.0000	0.0014	1.0000	0.0014
	Total		**0.0030**		**0.0030**		**0.0030**		**0.0030**
51-810-00006 60280	**US Navy Dam Neck Annex**	10301002	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50200101	0.0000	1.0654	0.0000	1.1836	0.0000	1.3151	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10200501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300603	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001
		10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002
		20100102	0.0004	0.7725	0.0003	0.8049	0.0003	0.8128	0.0003
		10200504	0.0015	1.0000	0.0015	1.0000	0.0015	1.0000	0.0015
		10200504	0.0020	1.0000	0.0020	1.0000	0.0020	1.0000	0.0020
		10300603	0.0048	1.0000	0.0048	1.0000	0.0048	1.0000	0.0048

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
		10200602	0.0051	1.0000	0.0051	1.0000	0.0051	1.0000	0.0051
		10200602	0.0052	1.0000	0.0052	1.0000	0.0052	1.0000	0.0052
		20200401	0.0055	1.0000	0.0055	1.0000	0.0055	1.0000	0.0055
		20100102	0.0132	0.7725	0.0102	0.8049	0.0106	0.8128	0.0107
	Total		**0.0384**		**0.0353**		**0.0357**		**0.0358**
51-810-00013 60033	**US Navy Little Creek Amphibious Base**	10500205	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10500214	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10500206	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		20300101	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300209	0.0039	1.0000	0.0039	1.0000	0.0039	1.0000	0.0039
		10300209	0.0061	1.0000	0.0061	1.0000	0.0061	1.0000	0.0061
		20100102	0.0457	0.7725	0.0353	0.8049	0.0368	0.8128	0.0372
	Total		**0.0557**		**0.0453**		**0.0468**		**0.0471**
51-810-00034 60431	**HRSD - Elizabeth STP**	20200401	0.0400	1.0000	0.0400	1.0000	0.0400	1.0000	0.0400
		50200506	0.2454	1.0654	0.2615	1.1836	0.2905	1.3151	0.3228
	Total		**0.2855**		**0.3016**		**0.3306**		**0.3628**
51-810-00044 60995	**Stihl Incorporated**	20400401	0.2216	0.9260	0.2052	1.1148	0.2471	1.3616	0.3018
	Total		**0.2216**		**0.2052**		**0.2471**		**0.3018**
51-810-00060 60741	**Servitex Incorporated**	10300602	0.0043	1.0000	0.0043	1.0000	0.0043	1.0000	0.0043
		10200501	0.0427	1.0000	0.0427	1.0000	0.0427	1.0000	0.0427
	Total		**0.0470**		**0.0470**		**0.0470**		**0.0470**
51-810-00105 61322	**Virginia Beach Landfill II**	20200102	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		50100410	0.1404	1.0579	0.1485	1.1891	0.1670	1.3358	0.1876
	Total		**0.1404**		**0.1486**		**0.1670**		**0.1876**
51-810-00109 61354	**Storopack Incorporated**	10200603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
	Total		**0.0003**		**0.0003**		**0.0003**		**0.0003**
51-810-00117 61423	**INGENCO - Virginia Beach**	20400304	0.1090	0.9260	0.1009	1.1148	0.1215	1.3616	0.1484
		20200102	0.2105	1.0000	0.2105	1.0000	0.2105	1.0000	0.2105
	Total		**0.3195**		**0.3114**		**0.3320**		**0.3589**
Williamsburg									
51-830-00030 60401	**Colonial Williamsburg Foundation**	10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		10300501	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
		20100202	0.0000	1.2886	0.0000	1.7237	0.0001	1.7988	0.0001
		10300603	0.0002	1.0000	0.0002	1.0000	0.0002	1.0000	0.0002

Table 3.2.2-3									
Projected CO Point Source Emissions for the Hampton Roads Non-Attainment Area									
County-Plant Id & Reg#	Facility Name	SCC	2002	2005		2011		2018	
			CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)	Growth Factor	CO (tpd)
		10300603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10300603	0.0003	1.0000	0.0003	1.0000	0.0003	1.0000	0.0003
		10300603	0.0005	1.0000	0.0005	1.0000	0.0005	1.0000	0.0005
		10300603	0.0006	1.0000	0.0006	1.0000	0.0006	1.0000	0.0006
		10300603	0.0009	1.0000	0.0009	1.0000	0.0009	1.0000	0.0009
		10300603	0.0012	1.0000	0.0012	1.0000	0.0012	1.0000	0.0012
		10300603	0.0019	1.0000	0.0019	1.0000	0.0019	1.0000	0.0019
		10300602	0.0027	1.0000	0.0027	1.0000	0.0027	1.0000	0.0027
		10300603	0.0030	1.0000	0.0030	1.0000	0.0030	1.0000	0.0030
		10300602	0.0057	1.0000	0.0057	1.0000	0.0057	1.0000	0.0057
		10300602	0.0206	1.0000	0.0206	1.0000	0.0206	1.0000	0.0206
	Total		**0.0378**		**0.0378**		**0.0379**		**0.0379**
Non-Attainment Area Total			**91.2820**		**91.3058**		**95.0656**		**99.4068**

4. Mobile Source Emissions Development

The purpose of this section is to document the development of the on-road mobile source emission inventories and emission projections for the Hampton Roads ozone nonattainment area. A mobile source emission inventory was compiled for a summer weekday in calendar year 2002, and projection inventories were compiled for a summer weekday for calendar years 2005, 2011, and 2018. The mobile source inventory includes emissions of reactive volatile organic compounds (VOC), oxides of nitrogen (NO_x), and carbon monoxide (CO) produced by the operation of on-road motor vehicles that are registered to use public roadways and utilize gasoline, diesel, or compressed natural gas fuels. This covers all classes of vehicles from motorcycles to heavy-duty tractor trailers operating on roads ranging from rural access roads to interstate highways. Table 4-1 shows each of the 28 vehicle classes that were modeled.

Table 4-1

Mobile Source Vehicle Types

VTYPE	VEHICLE	VEHICLE DESCRIPTION
1	LDGV	Light-Duty Gasoline Vehicles (Passenger Cars)
2	LDGT1	Light-Duty Gasoline Trucks 1 (0-6000 lbs GVWR, 0-3750 lbs LVW)
3	LDGT2	Light-Duty Gasoline Trucks 2 (0-6000 lbs. GVWR, 3751-5750 lbs. LVW)
4	LDGT3	Light-Duty Gasoline Trucks 3 (6001-8500 lbs GVWR, 0-3750 lbs LVW)
5	LDGT4	Light-Duty Gasoline Trucks 4 (6001-8500 lbs GVWR, 3751-5750 lbs LVW)
6	HDGV2b	Class 2b Heavy-Duty Gasoline Vehicles (8501-10,000 lbs GVWR)
7	HDGV3	Class 3 Heavy-Duty Gasoline Vehicles (10,001-14,000 lbs GVWR)
8	HDGV4	Class 4 Heavy-Duty Gasoline Vehicles (14,001-16,000 lbs GVWR)
9	HDGV5	Class 5 Heavy-Duty Gasoline Vehicles (16,001-19,500 lbs GVWR)
10	HDGV6	Class 6 Heavy-Duty Gasoline Vehicles (19,501-26,000 lbs GVWR)
11	HDGV7	Class 7 Heavy-Duty Gasoline Vehicles (26,001-33,000 lbs GVWR)
12	HDGV8a	Class 8a Heavy-Duty Gasoline Vehicles (33,001-60,000 lbs GVWR)
13	HDGV8b	Class 8b Heavy-Duty Gasoline Vehicles (>60,000 lbs GVWR)
14	LDDV	Light-Duty Diesel Vehicles (Passenger Cars)
15	LDDT12	Light-Duty Diesel Trucks 1 and 2 (0-6000 lbs GVWR)
16	HDDV2b	Class 2b Heavy-Duty Diesel Vehicles (8501-10,000 lbs GVWR)
17	HDDV3	Class 3 Heavy-Duty Diesel Vehicles (10,001-14,000 lbs GVWR)
18	HDDV4	Class 4 Heavy-Duty Diesel Vehicles (14,001-16,000 lbs GVWR)
19	HDDV5	Class 5 Heavy-Duty Diesel Vehicles (16,001-19,500 lbs GVWR)
20	HDDV6	Class 6 Heavy-Duty Diesel Vehicles (19,501-26,000 lbs GVWR)
21	HDDV7	Class 7 Heavy-Duty Diesel Vehicles (26,001-33,000 lbs GVWR)
22	HDDV8a	Class 8a Heavy-Duty Diesel Vehicles (33,001-60,000 lbs GVWR)
23	HDDV8b	Class 8b Heavy-Duty Diesel Vehicles (>60,000 lbs GVWR)
24	MC	Motorcycles (gasoline)
25	HDGB	Gasoline Buses (School, Transit, and Urban)
26	HDDBT	Diesel Transit and Urban Buses
27	HDDBS	Diesel School Buses
28	LDDT34	Light-Duty Diesel Trucks 3 and 4 (6001-8500 lbs GVWR)

In general, the process of estimating on-road mobile source emissions consists of two components: vehicular-related activity level and an average rate of pollutant produced as a result of a particular level of activity. The emission of ozone precursor pollutants from motor vehicles occurs in two main areas; the exhaust system and the evaporative system. The activity data pertinent for mobile emission development is vehicle miles traveled (VMT), which is used to determine exhaust and evaporative emissions from vehicle operation. A pollutant emission rate associated with a particular level of activity was estimated using the EPA Mobile 6.2 emission factor model. The Mobile 6.2 model requires the input of motor vehicle and traffic related information such as average road speed, age and distribution of registered vehicles, the mix of vehicle types that make up the traffic activity (VMT mix), and mobile control programs such as inspection and maintenance programs and anti-tampering programs. These inputs can be expressed specifically for a road type or a jurisdiction. Other factors that influence the emission rate are ambient temperatures and the reid vapor pressure (RVP) of the gasoline, which should accurately represent the travel scenario and the ambient condition modeled. Table 4-2 shows each of the road types modeled.

Table 4-2		
Mobile Source Road Types		
ROADTYPE	ROADSCC	ROADFHWA
Rural Interstate	110	1
Rural Other Principal Arterial	130	2
Rural Minor Arterial	150	6
Rural Major Collector	170	7
Rural Minor Collector	190	8
Rural Local	210	9
Urban Interstate	230	11
Urban Other Freeways and Expressways	250	12
Urban Other Principal Arterial	270	14
Urban Minor Arterial	290	16
Urban Collector	310	17
Urban Local	330	19

The calculation used to develop the emission estimates presented in this section is shown below.

<u>Equation 1:</u>

$(AL \times EF/CF^1)/ CF^2$ = Emission Estimate (for VOC, NO_x, or CO)

AL: Activity Level = VMT (miles) expressed as daily figure
EF: Emission Factor or emission rate expressed as grams/mile
CF^1: Conversion Factor for grams to pounds
CF^2: Conversion Factor for pounds to tons

This calculation would allow for the derivation of an emission estimation expressed in units of tons per day. The same equation is used for estimating emissions of all three criteria pollutants and can be applied at the jurisdiction, road type, and vehicle class levels. Table 4-3 summarizes the base and projection year mobile source emission inventories. Table 4-4, Table 4-5, and Table 4-6 provide base and projection year mobile source emissions by jurisdiction. Base and projection year mobile source emissions by vehicle type are included in Table 4.2-7a (2002), Table 4.2-7b (2005), Table 4.2-7c (2011), and Table 4.2-7d (2018).

Table 4-3
Base and Projection Year Mobile Source Emission Summary

Pollutant	2002	2005	2011	2018
VOC	67.293 tpd	50.331 tpd	36.586 tpd	26.314 tpd
NO_X	93.844 tpd	77.649 tpd	46.867 tpd	28.370 tpd
CO	848.362 tpd	638.023 tpd	445.623 tpd	402.171 tpd

Table 4-4				
Base and Projection Year Mobile Source VOC Emissions (tons)				
Pollutant	2002	2005	2011	2018
Chesapeake	9.374	7.971	5.843	4.371
Gloucester	2.318	1.606	1.182	0.816
Hampton	8.332	5.994	4.425	3.112
Isle of Wight	2.674	1.892	1.405	0.986
James City	2.378	1.747	1.301	0.994
Newport News	8.150	5.732	4.206	3.028
Norfolk	10.485	7.570	5.402	3.723
Poquoson	0.302	0.190	0.138	0.101
Portsmouth	3.656	2.629	1.890	1.283
Suffolk	4.387	3.237	2.420	1.751
Virginia Beach	11.719	9.030	6.353	4.630
Williamsburg	0.402	0.288	0.197	0.143
York	3.115	2.445	1.825	1.377
TOTAL	67.293	50.331	36.586	26.314

Table 4-5				
Base and Projection Year Mobile Source NOx Emissions (tons)				
Pollutant	2002	2005	2011	2018
Chesapeake	13.732	12.968	7.831	4.778
Gloucester	3.412	2.678	1.665	0.954
Hampton	10.371	8.151	5.178	3.211
Isle of Wight	3.361	2.365	1.504	0.927
James City	4.061	3.298	1.949	1.186
Newport News	10.615	8.217	5.062	3.160
Norfolk	14.907	11.968	7.070	4.163
Poquoson	0.269	0.198	0.124	0.081
Portsmouth	4.294	3.489	2.200	1.325
Suffolk	6.791	5.619	3.439	2.059
Virginia Beach	16.914	14.188	8.123	4.848
Williamsburg	0.500	0.398	0.221	0.133
York	4.617	4.111	2.502	1.547
TOTAL	93.844	77.649	46.867	28.370

Table 4-6				
Base and Projection Year Mobile Source CO Emissions (tons)				
Pollutant	2002	2005	2011	2018
Chesapeake	121.776	106.132	75.706	70.888

Gloucester	28.810	18.801	12.766	10.898
Hampton	99.625	68.980	49.029	43.643
Isle of Wight	29.209	20.501	14.089	12.163
James City	34.027	25.925	17.925	16.725
Newport News	98.523	68.623	49.171	44.825
Norfolk	136.179	99.162	67.581	58.948
Poquoson	2.831	1.772	1.264	1.135
Portsmouth	42.213	30.083	21.059	18.263
Suffolk	57.990	43.082	30.332	27.408
Virginia Beach	150.134	117.543	80.565	73.123
Williamsburg	4.662	3.437	2.311	2.062
York	42.382	33.983	23.824	22.091
TOTAL	848.362	638.023	445.623	402.171

With respect to technical review, documentation supporting the development of the mobile source inventory in this ozone redesignation request can be made available upon a written request to the Virginia Department of Environmental Quality, Air Division, P.O. Box 10009, Richmond, Virginia 23240, Attention Mr. Thomas Ballou, Director, Office of Air Data Analysis.

In regards to the development of the mobile source budgets for NO_X and VOC as well as the mobile source inventory summary seen in Chapter 2, the following table summarizes how this information was developed. The information regarding mobile source emissions on military bases is further broken down in Chapter 7.3.1. Lastly, mobile source margins of safety for both NO_X and VOC were added to 2011 and 2018 summaries to create the mobile source budgets. These margins of safety allow for changes in planning assumptions within the mobile source emissions model.

Table 4-7				
VOC Mobile Source Emissions Summary, tons/day				
Category	**2002**	**2005**	**2011**	**2018**
Mobile Source Emissions Calculations[1]	67.293	50.331	36.586	26.314
Military Base Information[2]	---	0.26	0.26	0.26
Margin of Safety	---	---	1.0	1.0
Total for VOC, tons/day:	**67.293**	**50.591**	**37.846**	**27.574**
NO_X Mobile Source Emissions Summary, tons/day				
Category	**2002**	**2005**	**2011**	**2018**
Mobile Source Emissions Calculations[1]	93.844	77.649	46.867	28.370
Military Base Information[2]	---	0.52	0.52	0.52
Margin of Safety	---	---	3.0	3.0
Total for NO_X, tons/day	**93.844**	**78.169**	**50.387**	**31.890**
CO Mobile Source Emissions Summary, tons/day				
Category	**2002**	**2005**	**2011**	**2018**
Mobile Source Emissions Calculations[1]	848.362	638.023	445.623	402.171
Military Base Information[2]	---	4.08	4.08	4.08
Margin of Safety	---	---	---	---
Total for CO, tons/day	**848.362**	**642.103**	**449.703**	**406.251**

[1]See Table 4-3.

[2]See Table 7.3.1-8.

In the following sections, the discussion will focus on the development of the mobile source pollutant emission factors and activity data for each of the calendar years evaluated.

4.1. Mobile 6.2 Emission Factor Development

The emission factor modeling using Mobile 6.2 was performed for each of the jurisdictions within the Hampton Roads ozone nonattainment area, which includes Chesapeake City, Gloucester County, Hampton City, Isle of Wight County, James City County, Newport News City, Norfolk City, Poquoson City, Portsmouth City, Suffolk City, Virginia Beach City, Williamsburg City, and York County. Each Mobile 6.2 input file prepared contains a separate run for each of the thirteen jurisdictions, and numerous scenarios representing different road types within each jurisdiction, each modeled with their own average speed.

The temperature, humidity, and barometric pressure inputs were derived by accumulating hourly data from the 10 highest 8-hour ozone days recorded at air monitoring stations in the Hampton Roads ozone nonattainment area between 2003 and 2005. These days and their corresponding 8-hour ozone values are shown in Table 4.1-1 below.

Table 4.1-1
2003-2005 Hampton Roads Nonattainment Area Air Monitor
10 Highest 8-Hour Ozone Readings (ppm)

Site	Date	8-hr. Maximum
Hampton	6/26/2003	0.112
Suffolk (TCC)	7/21/2004	0.099
Hampton	6/25/2003	0.096
Suffolk (TCC)	6/24/2003	0.087
Suffolk (Holland)	6/27/2003	0.087
Suffolk (TCC)	8/4/2005	0.086
Suffolk (Holland)	9/9/2005	0.082
Suffolk (TCC)	4/20/2005	0.080
Suffolk (TCC)	8/3/2005	0.080
Suffolk (Holland)	6/24/2005	0.079

The average temperature and relative humidity for each hour of the day on the 10 highest 8-hour ozone days are shown in Table 4.1-2 below. These 24 hourly temperature and relative humidity values were used in the Mobile 6.2 input files for all analysis years. In addition, an average barometric pressure input was calculated by averaging the 24 hourly values together in Table 4.1-2.

Table 4.1-2
Average Hourly Meteorological Data

Time (EDT)	Temperature (F)	Dew Point (F)	Relative Humidity (%)	Pressure (In)
6:00 AM	71.77	66.4	83.9	30.017
7:00 AM	75.2	67.7	78.1	30.029
8:00 AM	77.8	68.09	72.7	30.033
9:00 AM	81.07	67.22	63	30.034
10:00 AM	83.04	66.91	58.5	30.034
11:00 AM	84.34	65.99	54.5	30.027

Table 4.1-2				
Average Hourly Meteorological Data				
Time (EDT)	Temperature (F)	Dew Point (F)	Relative Humidity (%)	Pressure (In)
12:00 PM	85.79	65.04	50	30.019
1:00 PM	86.59	64.81	48.9	30.009
2:00 PM	87.4	64.09	46.6	29.996
3:00 PM	87.27	63.82	46	29.985
4:00 PM	87.6	63.22	44.7	29.978
5:00 PM	87.01	63.86	46.7	29.974
6:00 PM	85.51	63.99	49.1	29.973
7:00 PM	83.21	65.42	55.9	29.982
8:00 PM	79.39	68.16	69	29.990
9:00 PM	77.9	68.5	73.3	30.004
10:00 PM	77.02	68.08	74.5	30.006
11:00 PM	75.38	67.87	78.1	30.007
12:00 AM	73.31	66.4	79.8	30.006
1:00 AM	72.91	66.31	80.7	30.004
2:00 AM	72.71	66.49	81.7	29.997
3:00 AM	71.9	63.8	78.1	29.995
4:00 AM	71.2	65.5	82.8	29.995
5:00 AM	70.73	65.49	84.3	30.006
	Avg Min T	70.51		
	Avg Max T	88.01		
	Avg Pres	30.004		

For all analysis years, Chesapeake City, Hampton City, James City County, Newport News City, Norfolk City, Poquoson City, Portsmouth City, Suffolk City, Virginia Beach City, Williamsburg City, and York County were modeled with reformulated gasoline (RFG), while Gloucester and Isle of Wight were modeled with conventional southern grade gasoline with an average Reid vapor pressure (RVP) of 8.4 psi. No inspection and maintenance or anti-tampering programs were included.

The Virginia Department of Motor Vehicles (DMV) provided statewide registration data as of July 1, 2002. This 2002 registration data was reformatted for Mobile 6.2 input and used for the 2002 analysis year. The DMV also provided statewide registration data as of July 1, 2005. These 2005 registration data files were used for the 2005, 2011, and 2018 analysis years.

4.2. Mobile Source Activity Data Development

As summarized in Table 4.2-1 and Table 4.2-2 below, the Virginia Department of Transportation (VDOT) provided the DEQ with jurisdictional, road-specific, average summer weekday VMT and speed data for the 2002 base year and for calendar year 2004 with average growth rates that were compounded annually to estimate VMT for the future years of 2005, 2011, and 2018.

Table 4.2-1

2004 Mobile Source Activity Data								
FIPS	Jurisdiction Name	ROADFHWA	AVDAYVMT	ANNLVMT	RUN	SCEN	GROWTH	SPEED
550	City of Chesapeake	11	1,806,692	659,442,580	1	1	1.028	55.64
550	City of Chesapeake	12	1,218,471	444,741,915	1	2	1.0297	56.47
550	City of Chesapeake	14	699,875	255,454,375	1	3	1.0174	45.35
550	City of Chesapeake	16	1,374,893	501,835,945	1	4	1.0201	42.39
550	City of Chesapeake	17	328,416	119,871,840	1	5	1.0196	20.42
550	City of Chesapeake	19	920,068	335,824,820	1	6	1.022	12.9
650	City of Hampton	11	1,483,680	541,543,200	2	1	1.0224	55.17
650	City of Hampton	12	140,941	51,443,465	2	2	1.0236	55
650	City of Hampton	14	330,706	120,707,690	2	3	1.0155	41.67
650	City of Hampton	16	822,411	300,180,015	2	4	1.0139	39.58
650	City of Hampton	17	252,933	92,320,545	2	5	1.0141	25.59
650	City of Hampton	19	739,598	269,953,270	2	6	1.022	12.9
700	City of Newport News	11	1,505,173	549,388,145	3	1	1.0267	55.45
700	City of Newport News	14	956,509	349,125,785	3	2	1.018	42.63
700	City of Newport News	16	883,716	322,556,340	3	3	1.017	39.62
700	City of Newport News	17	321,939	117,507,735	3	4	1.0148	17.74
700	City of Newport News	19	647,409	236,304,285	3	5	1.022	12.9
710	City of Norfolk	11	2,720,835	993,104,775	4	1	1.0181	55.12
710	City of Norfolk	12	5,915	2,158,975	4	2	1.0181	54.98
710	City of Norfolk	14	1,510,507	551,335,055	4	3	1.0112	41.72
710	City of Norfolk	16	897,423	327,559,395	4	4	1.013	37.49
710	City of Norfolk	17	192,106	70,118,690	4	5	1.0166	11.55
710	City of Norfolk	19	395,111	144,215,515	4	6	1.022	12.9
735	City of Poquoson	16	26,386	9,630,890	5	1	1.0145	43.95
735	City of Poquoson	17	48,528	17,712,720	5	2	1.0136	35
735	City of Poquoson	19	46,298	16,898,770	5	3	1.022	12.9
740	City of Portsmouth	11	363,103	132,532,595	6	1	1.0201	55
740	City of Portsmouth	12	120,741	44,070,465	6	2	1.0229	55.3
740	City of Portsmouth	14	387,706	141,512,690	6	3	1.0114	42.89
740	City of Portsmouth	16	454,254	165,802,710	6	4	1.0123	38.98
740	City of Portsmouth	17	126,479	46,164,835	6	5	1.0174	23
740	City of Portsmouth	19	242,301	88,439,865	6	6	1.022	12.9
800	City of Suffolk	2	401,511	146,551,515	7	1	1.0206	49.68
800	City of Suffolk	6	78,651	28,707,615	7	2	1.0157	43.73
800	City of Suffolk	7	34,045	12,426,425	7	3	1.0197	40.87
800	City of Suffolk	8	33,145	12,097,925	7	4	1.021	40.49
800	City of Suffolk	9	67,862	24,769,630	7	5	1.022	25
800	City of Suffolk	11	287,513	104,942,245	7	6	1.026	58
800	City of Suffolk	12	530,687	193,700,755	7	7	1.0282	58
800	City of Suffolk	14	468,780	171,104,700	7	8	1.0178	49.68
800	City of Suffolk	16	372,966	136,132,590	7	9	1.0157	43.73
800	City of Suffolk	17	82,506	30,114,690	7	10	1.0181	28.38

Table 4.2-1								
2004 Mobile Source Activity Data								
FIPS	Jurisdiction Name	ROADFHWA	AVDAYVMT	ANNLVMT	RUN	SCEN	GROWTH	SPEED
800	City of Suffolk	19	147,336	53,777,640	7	11	1.022	12.9
810	City of Virginia Beach	11	1,864,142	680,411,830	8	1	1.0222	55.12
810	City of Virginia Beach	12	139,735	51,003,275	8	2	1.0222	55
810	City of Virginia Beach	14	1,186,596	433,107,540	8	3	1.0114	41.45
810	City of Virginia Beach	16	3,082,492	1,125,109,580	8	4	1.019	39.69
810	City of Virginia Beach	17	825,205	301,199,825	8	5	1.0162	35
810	City of Virginia Beach	19	844,806	308,354,190	8	6	1.022	12.9
830	City of Williamsburg	12	11,768	4,295,320	9	1	1.0238	57.08
830	City of Williamsburg	14	72,119	26,323,435	9	2	1.0099	45.98
830	City of Williamsburg	16	95,312	34,788,880	9	3	1.012	39.44
830	City of Williamsburg	17	26,304	9,600,960	9	4	1.0163	25
830	City of Williamsburg	19	48,369	17,654,685	9	5	1.022	12.9
073	Gloucester County	2	316,898	115,667,770	12	1	1.0121	59
073	Gloucester County	6	169,561	61,889,765	12	2	1.0242	50
073	Gloucester County	7	131,831	48,118,315	12	3	1.0234	35
073	Gloucester County	8	23,667	8,638,455	12	4	1.025	37
073	Gloucester County	9	65,326	23,843,990	12	5	1.022	25
073	Gloucester County	14	243,365	88,828,225	12	6	1.0117	50
073	Gloucester County	17	49,859	18,198,535	12	7	1.0126	27
073	Gloucester County	19	18,441	6,730,965	12	8	1.022	12.9
093	Isle of Wight County	2	117,845	43,013,425	13	1	1.0148	48
093	Isle of Wight County	6	184,064	67,183,360	13	2	1.017	43
093	Isle of Wight County	7	90,668	33,093,820	13	3	1.0152	38
093	Isle of Wight County	8	14,742	5,380,830	13	4	1.0145	43
093	Isle of Wight County	9	140,074	51,127,010	13	5	1.022	25
093	Isle of Wight County	14	357,179	130,370,335	13	6	1.0174	48
093	Isle of Wight County	16	149,999	54,749,635	13	7	1.0187	43
093	Isle of Wight County	17	67,478	24,629,470	13	8	1.0208	38
093	Isle of Wight County	19	11,651	4,252,615	13	9	1.022	12.9
095	James City County	1	400,078	146,028,470	10	1	1.0258	57.43
095	James City County	6	60,966	22,252,590	10	2	1.0185	45.28
095	James City County	7	80,162	29,259,130	10	3	1.0225	36.94
095	James City County	8	17,805	6,498,825	10	4	1.0226	35.14
095	James City County	9	69,331	25,305,815	10	5	1.022	25
095	James City County	11	176,149	64,294,385	10	6	1.0292	57.43
095	James City County	12	232,293	84,786,945	10	7	1.0229	56.83
095	James City County	14	115,163	42,034,495	10	8	1.0115	48.52
095	James City County	16	272,805	99,573,825	10	9	1.0244	45.28
095	James City County	17	65,722	23,988,530	10	10	1.0275	35
095	James City County	19	39,297	14,343,405	10	11	1.022	12.9
199	York County	1	316,438	115,499,870	11	1	1.0265	57.99

Table 4.2-1								
2004 Mobile Source Activity Data								
FIPS	Jurisdiction Name	ROADFHWA	AVDAYVMT	ANNLVMT	RUN	SCEN	GROWTH	SPEED
199	York County	6	22,088	8,062,120	11	2	1.024	42.23
199	York County	7	27,621	10,081,665	11	3	1.0214	32.32
199	York County	9	28,358	10,350,670	11	4	1.022	25
199	York County	11	386,343	141,015,195	11	5	1.0287	57.99
199	York County	12	59,081	21,564,565	11	6	1.0254	56.7
199	York County	14	644,288	235,165,120	11	7	1.0201	48.46
199	York County	16	233,598	85,263,270	11	8	1.0215	42.23
199	York County	17	121,799	44,456,635	11	9	1.0171	35
199	York County	19	156,639	57,173,235	11	10	1.022	12.9

Table 4.2-2								
2002 Mobile Source Activity Data								
FIPS	COUNTY	ROADFHWA	AVDAYVMT	ANNLVMT	RUN	SCEN	GROWTH	SPEED
550	City of Chesapeake	11	1,805,366	658,958,590	1	1	1.02371	55.64
550	City of Chesapeake	12	578,649	211,206,885	1	2	1.01714	56.47
550	City of Chesapeake	14	649,763	237,163,495	1	3	1.01714	45.35
550	City of Chesapeake	16	1,296,938	473,382,370	1	4	1.01869	42.39
550	City of Chesapeake	17	305,768	111,605,320	1	5	1.01783	20.42
550	City of Chesapeake	19	850,335	310,372,275	1	6	1.022	12.9
650	City of Hampton	11	1,674,705	611,267,325	2	1	1.02082	55.17
650	City of Hampton	12	84,171	30,722,415	2	2	1.01471	55
650	City of Hampton	14	330,377	120,587,605	2	3	1.01471	41.67
650	City of Hampton	16	811,878	296,335,470	2	4	1.01305	39.58
650	City of Hampton	17	259,610	94,757,650	2	5	1.01971	25.59
650	City of Hampton	19	626,256	228,583,440	2	6	1.022	12.9
700	City of Newport News	11	1,545,596	564,142,540	3	1	1.02491	55.45
700	City of Newport News	14	881,987	321,925,255	3	2	1.01599	42.63
700	City of Newport News	16	909,581	331,997,065	3	3	1.01478	39.62
700	City of Newport News	17	306,718	111,952,070	3	4	1.01492	17.74
700	City of Newport News	19	728,015	265,725,475	3	5	1.022	12.9
710	City of Norfolk	11	2,645,444	965,587,060	4	1	1.01748	55.12
710	City of Norfolk	12	6,860	2,503,900	4	2	1.01032	54.98
710	City of Norfolk	14	1,495,983	546,033,795	4	3	1.01032	41.72
710	City of Norfolk	16	835,479	304,949,835	4	4	1.01238	37.49
710	City of Norfolk	17	201,385	73,505,525	4	5	1.0111	11.55
710	City of Norfolk	19	394,371	143,945,415	4	6	1.022	12.9
735	City of Poquoson	16	28,181	10,286,065	5	1	1.0192	43.95
735	City of Poquoson	17	48,983	17,878,795	5	2	1.0208	35
735	City of Poquoson	19	48,956	17,868,940	5	3	1.022	12.9

Table 4.2-2								
2002 Mobile Source Activity Data								
FIPS	COUNTY	ROADFHWA	AVDAYVMT	ANNLVMT	RUN	SCEN	GROWTH	SPEED
740	City of Portsmouth	11	337,973	123,360,145	6	1	1.01763	55
740	City of Portsmouth	12	145,276	53,025,740	6	2	1.01663	55.3
740	City of Portsmouth	14	394,801	144,102,365	6	3	1.01663	42.89
740	City of Portsmouth	16	450,350	164,377,750	6	4	1.01743	38.98
740	City of Portsmouth	17	139,260	50,829,900	6	5	1.0181	23
740	City of Portsmouth	19	235,048	85,792,520	6	6	1.022	12.9
800	City of Suffolk	2	392,469	143,251,185	7	1	1.01854	49.68
800	City of Suffolk	6	75,612	27,598,380	7	2	1.01581	43.73
800	City of Suffolk	7	32,429	11,836,585	7	3	1.01406	40.87
800	City of Suffolk	8	32,228	11,763,220	7	4	1.01636	40.49
800	City of Suffolk	9	64,633	23,591,045	7	5	1.022	12.9
800	City of Suffolk	11	282,930	103,269,450	7	6	1.02952	58
800	City of Suffolk	12	495,685	180,925,025	7	7	1.01846	58
800	City of Suffolk	14	433,145	158,097,925	7	8	1.01846	49.68
800	City of Suffolk	16	357,798	130,596,270	7	9	1.01404	43.73
800	City of Suffolk	17	88,847	32,429,155	7	10	1.01663	28.38
800	City of Suffolk	19	116,847	42,649,155	7	11	1.022	12.9
810	City of Virginia Beach	11	1,759,653	642,273,345	8	1	1.02099	55.12
810	City of Virginia Beach	12	126,453	46,155,345	8	2	1.01401	55
810	City of Virginia Beach	14	1,197,812	437,201,380	8	3	1.01401	41.45
810	City of Virginia Beach	16	2,868,817	1,047,118,205	8	4	1.01958	39.69
810	City of Virginia Beach	17	776,302	283,350,230	8	5	1.01937	35
810	City of Virginia Beach	19	867,842	316,762,330	8	6	1.022	12.9
830	City of Williamsburg	12	8,735	3,188,275	9	1	1.01464	57.08
830	City of Williamsburg	14	76,098	27,775,770	9	2	1.01464	45.98
830	City of Williamsburg	16	92,108	33,619,420	9	3	1.01136	39.44
830	City of Williamsburg	17	31,502	11,498,230	9	4	1.01103	25
830	City of Williamsburg	19	53,179	19,410,335	9	5	1.022	12.9
095	James City County	1	387,146	141,308,290	10	1	1.02077	57.43
095	James City County	6	146,949	53,636,385	10	2	1.01924	45.28
095	James City County	7	124,332	45,381,180	10	3	1.02278	36.94
095	James City County	8	28,621	10,446,665	10	4	1.01939	35.14
095	James City County	9	67,106	24,493,690	10	5	1.022	12.9
095	James City County	11	183,087	66,826,755	10	6	1.02396	57.43
095	James City County	12	171,687	62,665,755	10	7	1.01944	56.83
095	James City County	14	106,292	38,796,580	10	8	1.01944	48.52
095	James City County	16	169,153	61,740,845	10	9	1.02123	45.28
095	James City County	17	50,176	18,314,240	10	10	1.02308	35
095	James City County	19	28,977	10,576,605	10	11	1.022	12.9
199	York County	1	282,557	103,133,305	11	1	1.02184	57.99
199	York County	6	26,734	9,757,910	11	2	1.02141	42.23

Table 4.2-2								
2002 Mobile Source Activity Data								
FIPS	COUNTY	ROADFHWA	AVDAYVMT	ANNLVMT	RUN	SCEN	GROWTH	SPEED
199	York County	7	21,020	7,672,300	11	3	1.02138	32.32
199	York County	9	27,413	10,005,745	11	4	1.022	12.9
199	York County	11	302,212	110,307,380	11	5	1.02216	57.99
199	York County	12	48,621	17,746,665	11	6	1.0198	56.7
199	York County	14	605,669	221,069,185	11	7	1.0198	48.46
199	York County	16	228,171	83,282,415	11	8	1.01866	42.23
199	York County	17	134,214	48,988,110	11	9	1.01682	35
199	York County	19	123,693	45,147,945	11	10	1.022	12.9
073	Gloucester County	2	303,730	110,861,450	12	1	1.01969	59
073	Gloucester County	6	166,862	60,904,630	12	2	1.01645	50
073	Gloucester County	7	138,836	50,675,140	12	3	1.02023	35
073	Gloucester County	8	24,416	8,911,840	12	4	1.01956	37
073	Gloucester County	9	62,706	22,887,690	12	5	1.022	12.9
073	Gloucester County	14	233,896	85,372,040	12	6	1.01659	50
073	Gloucester County	17	50,393	18,393,445	12	7	1.0145	27
073	Gloucester County	19	17,116	6,247,340	12	8	1.022	12.9
093	Isle of Wight County	2	319,689	116,686,485	13	1	1.01819	48
093	Isle of Wight County	6	306,400	111,836,000	13	2	1.01881	43
093	Isle of Wight County	7	265,584	96,938,160	13	3	1.01425	38
093	Isle of Wight County	8	14,103	5,147,595	13	4	1.00951	43
093	Isle of Wight County	9	167,796	61,245,540	13	5	1.022	12.9

VDOT also provided adjustment factors to convert average annual daily VMT to an average ozone season day (ADJFACOS) and average ozone season weekday (ADJFACWD). These factors are provided in Table 4.2-3 below.

Table 4.2-3			
Mobile Source Adjustment Factors			
ROADFHWA	ROADSCC	ADJFACOS	ADJFACWD
1	110	1.137	1.185833
2	130	1.061	1.027933
6	150	1.012	1.065833
7	170	1.042	1.126167
8	190	1.042	1.126167
9	210	1.057	1.057933
11	230	1.137	1.185833
12	250	1.097	1.124233
14	270	1.065	1.098467
16	290	1.027	1.131600
17	310	1.042	1.126167
19	330	1.040	1.135133

Last, VDOT provided VMT mix data for each road type within the thirteen jurisdictions which are shown in Table 4.2-4. Each value represents the average fractional percentage of each vehicle type that travels on each road type.

In general, 2002 mobile source input parameters, such as VMT, speeds, and registration data, were used to develop the 2002 inventory. 2005 registration data and 2004 VMT and speeds were used to develop the 2005, 2011 and 2018 future year inventories. VMT was grown for future year projections by multiplying the 2004 VMT by the respective growth rate compounded annually for each road type. A sample Mobile 6.2 input file and output file are attached below in Tables 4.2-5 and 4.2-6, respectively. Base and projection year mobile source emissions by jurisdiction and vehicle type are included in Table 4.2-7a (2002), Table 4.2-7b (2005), Table 4.2-7c (2011), and Table 4.2-7d (2018).

Table 4.2-4												
Mobile Source VMT Mix Data												
ROADSCC	110	130	150	170	190	210	230	250	270	290	310	330
LDV	0.48564	0.43855	0.46912	0.48076	0.46669	0.48821	0.48761	0.49028	0.49984	0.49739	0.4973	0.50791
LDT1	0.0762	0.06881	0.0736	0.07543	0.07322	0.0766	0.0765	0.07693	0.07842	0.07804	0.07803	0.07969
LDT2	0.25366	0.22907	0.24503	0.2511	0.24376	0.25501	0.25469	0.25609	0.26108	0.25979	0.25975	0.26529
LDT3	0.07727	0.06978	0.07464	0.07649	0.07425	0.07768	0.07758	0.07801	0.07953	0.07914	0.07912	0.08081
LDT4	0.03553	0.03209	0.03432	0.03517	0.03414	0.03572	0.03567	0.03587	0.03657	0.03639	0.03638	0.03716
HDV2B	0.02249	0.05197	0.03271	0.02468	0.03313	0.01885	0.02122	0.01978	0.01345	0.01465	0.01456	0.00777
HDV3	0.00223	0.00516	0.00325	0.00245	0.00329	0.00187	0.00211	0.00196	0.00134	0.00145	0.00144	0.00077
HDV4	0.00174	0.00402	0.00253	0.00191	0.00256	0.00146	0.00164	0.00153	0.00104	0.00113	0.00113	0.0006
HDV5	0.00131	0.00304	0.00191	0.00144	0.00194	0.0011	0.00124	0.00116	0.00079	0.00086	0.00085	0.00045
HDV6	0.00493	0.01139	0.00717	0.00541	0.00726	0.00413	0.00465	0.00434	0.00295	0.00321	0.00319	0.0017

Table 4.2-4												
Mobile Source VMT Mix Data												
ROADSCC	110	130	150	170	190	210	230	250	270	290	310	330
HDV7	0.00585	0.01353	0.00851	0.00642	0.00862	0.00491	0.00552	0.00515	0.0035	0.00381	0.00379	0.00202
HDV8A	0.00642	0.01484	0.00934	0.00705	0.00946	0.00538	0.00606	0.00565	0.00384	0.00418	0.00416	0.00222
HDV8B	0.02287	0.05287	0.03327	0.02511	0.03371	0.01917	0.02159	0.02012	0.01369	0.01491	0.01481	0.00791
HDBS	0.00113	0.00262	0.00165	0.00124	0.00167	0.00095	0.00107	0.001	0.00068	0.00074	0.00073	0.00039
HDBT	0.00052	0.0012	0.00076	0.00057	0.00077	0.00044	0.00049	0.00046	0.00031	0.00034	0.00034	0.00018
MC	0.00221	0.00106	0.00219	0.00477	0.00553	0.00852	0.00236	0.00167	0.00297	0.00397	0.00442	0.00513

Table 4.2-5
Sample Mobile 6.2 Input File

```
MOBILE6 INPUT FILE :
>
>  HAMPTON ROADS 8-HR NONATTAINMENT AREA
>  2005 MOBILE SOURCE EMISSIONS INCLUDING PM2.5
>  RFG, NLEV, AND NO REFUELING EMISSIONS
>  2004 VMT GROWN TO 2005, 2004 SPEEDS
>  2002 VMT MIX, 2005 REG DATA
>  NO RFG IN GLOUCESTER AND ISLE OF WIGHT
>  HOURLY TEMPERATURE, HOURLY HUMIDITY, AVERAGE BAROMETRIC PRESSURE
>

REPORT FILE        : C:\02SIP\HAMPTON\2005\HAMP05.OUT
DATABASE OUTPUT    :
WITH FIELDNAMES    :
AGGREGATED OUTPUT  :
EMISSIONS TABLE    : C:\02SIP\HAMPTON\2005\HAMP05.TXT   REPLACE
PARTICULATES       : SO4 OCARBON ECARBON GASPM LEAD SO2 NH3 BRAKE TIRE



RUN DATA           :
EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\CHESA05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : CHESAPEAKE, ROADSCC 230, 55.64 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 55.64 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : CHESAPEAKE, ROADSCC 250, 56.47 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
```

Table 4.2-5, Continued

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VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 56.47 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : CHESAPEAKE, ROADSCC 270, 45.35 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 45.35 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : CHESAPEAKE, ROADSCC 290, 42.39 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 42.39 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : CHESAPEAKE, ROADSCC 310, 20.42 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 20.42 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
```

Table 4.2-5, Continued

```
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : CHESAPEAKE, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\HAMPT05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : HAMPTON, ROADSCC 230, 55.17 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 55.17 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : HAMPTON, ROADSCC 250, 55.0 MPH
CALENDAR YEAR      : 2005
```

Table 4.2-5, Continued

```
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 55.0 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : HAMPTON, ROADSCC 270, 41.67 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 41.67 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : HAMPTON, ROADSCC 290, 39.58 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 39.58 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : HAMPTON, ROADSCC 310, 25.59 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 25.59 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
```

Table 4.2-5, Continued

```
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : HAMPTON, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\NEWPO05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : NEWPORT NEWS, ROADSCC 230, 55.45 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 55.45 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NEWPORT NEWS, ROADSCC 270, 42.63 MPH
```

Table 4.2-5, Continued

```
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 42.63 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NEWPORT NEWS, ROADSCC 290, 39.62 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 39.62 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NEWPORT NEWS, ROADSCC 310, 17.74 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 17.74 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NEWPORT NEWS, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
```

Table 4.2-5, Continued

```
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\NORFO05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                      85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : NORFOLK, ROADSCC 230, 55.12 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 55.12 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NORFOLK, ROADSCC 250, 54.98 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 54.98 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357
```

Table 4.2-5, Continued

```
SCENARIO RECORD    : NORFOLK, ROADSCC 270, 41.72 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 41.72 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NORFOLK, ROADSCC 290, 37.49 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 37.49 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NORFOLK, ROADSCC 310, 11.55 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 11.55 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : NORFOLK, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
```

Table 4.2-5, Continued

```
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\POQUO05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : POQUOSON, ROADSCC 290, 43.95 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 43.95 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : POQUOSON, ROADSCC 310, 35 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 35 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
```

Table 4.2-5, Continued

```
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : POQUOSON, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\PORTS05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : PORTSMOUTH, ROADSCC 230, 55 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 55 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : PORTSMOUTH, ROADSCC 250, 55.3 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
```

Table 4.2-5, Continued

```
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 55.3 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : PORTSMOUTH, ROADSCC 270, 42.89 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 42.89 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : PORTSMOUTH, ROADSCC 290, 38.98 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 38.98 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : PORTSMOUTH, ROADSCC 310, 23.0 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 23.0 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
```

Table 4.2-5, Continued

```
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : PORTSMOUTH, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\SUFFO05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : SUFFOLK, ROADSCC 130, 49.68 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.43855 0.06881 0.22907 0.06978 0.03209 0.05197 0.00516 0.00402
0.00304 0.01139 0.01353 0.01484 0.05287 0.00262 0.00120 0.00106
AVERAGE SPEED      : 49.68 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 150, 43.73 MPH
CALENDAR YEAR      : 2005
```

Table 4.2-5, Continued

```
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46912 0.07360 0.24503 0.07464 0.03432 0.03271 0.00325 0.00253
0.00191 0.00717 0.00851 0.00934 0.03327 0.00165 0.00076 0.00219
AVERAGE SPEED      : 43.73 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 170, 40.87 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48076 0.07543 0.25110 0.07649 0.03517 0.02468 0.00245 0.00191
0.00144 0.00541 0.00642 0.00705 0.02511 0.00124 0.00057 0.00477
AVERAGE SPEED      : 40.87 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 190, 40.49 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 40.49 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 210, 25.0 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48821 0.07660 0.25501 0.07768 0.03572 0.01885 0.00187 0.00146
0.00110 0.00413 0.00491 0.00538 0.01917 0.00095 0.00044 0.00852
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
```

Table 4.2-5, Continued

```
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 230, 58 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 58 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 250, 58 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 58 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 270, 49.68 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 49.68 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 290, 43.73 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
```

Table 4.2-5, Continued

```
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 43.73 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 310, 28.38 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 28.38 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : SUFFOLK, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\VIRGI05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
```

Table 4.2-5, Continued

```
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : VIRGINIA BEACH, ROADSCC 230, 55.12 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 55.12 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : VIRGINIA BEACH, ROADSCC 250, 55 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
AVERAGE SPEED      : 55 FREEWAY 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : VIRGINIA BEACH, ROADSCC 270, 41.45 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 41.45 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : VIRGINIA BEACH, ROADSCC 290, 39.69 MPH
CALENDAR YEAR      : 2005
```

Table 4.2-5, Continued

```
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 39.69 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : VIRGINIA BEACH, ROADSCC 310, 35 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 35 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : VIRGINIA BEACH, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\WILLI05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
```

Table 4.2-5, Continued

```
FUEL PROGRAM        : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP            : 6.8
OXYGENATED FUELS    : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD     : WILLIAMSBURG, ROADSCC 250, 57.08 MPH
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
VMT FRACTIONS       :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED       : 57.08 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY   : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES     : 30.004
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE       : 2.5
DIESEL SULFUR       : 357

SCENARIO RECORD     : WILLIAMSBURG, ROADSCC 270, 45.98 MPH
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
VMT FRACTIONS       :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED       : 45.98 ARTERIAL
RELATIVE HUMIDITY   : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES     : 30.004
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE       : 2.5
DIESEL SULFUR       : 357

SCENARIO RECORD     : WILLIAMSBURG, ROADSCC 290, 39.44 MPH
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
VMT FRACTIONS       :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED       : 39.44 ARTERIAL
RELATIVE HUMIDITY   : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES     : 30.004
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE       : 2.5
DIESEL SULFUR       : 357

SCENARIO RECORD     : WILLIAMSBURG, ROADSCC 310, 25.0 MPH
```

Table 4.2-5, Continued

```
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 25.0 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : WILLIAMSBURG, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\JAMES05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP           : 6.8
OXYGENATED FUELS   : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD    : JAMES CITY, ROADSCC 110, 57.43 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48564 0.07620 0.25366 0.07727 0.03553 0.02249 0.00223 0.00174
0.00131 0.00493 0.00585 0.00642 0.02287 0.00113 0.00052 0.00221
AVERAGE SPEED      : 57.43 FREEWAY 92.0 0.0 0.0 8.0
```

Table 4.2-5, Continued

```
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 150, 45.28 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46912 0.07360 0.24503 0.07464 0.03432 0.03271 0.00325 0.00253
0.00191 0.00717 0.00851 0.00934 0.03327 0.00165 0.00076 0.00219
AVERAGE SPEED      : 45.28 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 170, 36.94 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48076 0.07543 0.25110 0.07649 0.03517 0.02468 0.00245 0.00191
0.00144 0.00541 0.00642 0.00705 0.02511 0.00124 0.00057 0.00477
AVERAGE SPEED      : 36.94 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 190, 35.14 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 35.14 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357
```

Table 4.2-5, Continued

```
SCENARIO RECORD    : JAMES CITY, ROADSCC 210, 25.0 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48821 0.07660 0.25501 0.07768 0.03572 0.01885 0.00187 0.00146
0.00110 0.00413 0.00491 0.00538 0.01917 0.00095 0.00044 0.00852
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 230, 57.43 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 57.43 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 250, 56.83 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 56.83 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 270, 48.52 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 48.52 ARTERIAL
```

Table 4.2-5, Continued

```
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 290, 45.28 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 45.28 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 310, 35 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 35 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : JAMES CITY, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357
```

Table 4.2-5, Continued

```
END OF RUN          :


EXPRESS HC AS VOC   :
REG DIST            : C:\MOBILE62\HAMPTON\2005\YORK05.RDT
NO REFUELING        :
94+ LDG IMP         : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                      85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM        : 4
 150  149  129  120 120  90  30  30
  30   30   30   30  30  30  30  30
1000 1000 1000 1000 303 303  87  87
  80   80   80   80  80  80  80  80
FUEL RVP            : 6.8
OXYGENATED FUELS    : 1.00 0.00 0.021 0.00 1

SCENARIO RECORD     : YORK, ROADSCC 110, 57.99 MPH
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
VMT FRACTIONS       :
0.48564 0.07620 0.25366 0.07727 0.03553 0.02249 0.00223 0.00174
0.00131 0.00493 0.00585 0.00642 0.02287 0.00113 0.00052 0.00221
AVERAGE SPEED       : 57.99 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY   : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES     : 30.004
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE       : 2.5
DIESEL SULFUR       : 357

SCENARIO RECORD     : YORK, ROADSCC 150, 42.23 MPH
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
VMT FRACTIONS       :
0.46912 0.07360 0.24503 0.07464 0.03432 0.03271 0.00325 0.00253
0.00191 0.00717 0.00851 0.00934 0.03327 0.00165 0.00076 0.00219
AVERAGE SPEED       : 42.23 ARTERIAL
RELATIVE HUMIDITY   : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES     : 30.004
PARTICULATE EF      : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE       : 2.5
DIESEL SULFUR       : 357

SCENARIO RECORD     : YORK, ROADSCC 170, 32.32 MPH
CALENDAR YEAR       : 2005
EVALUATION MONTH    : 7
VMT FRACTIONS       :
0.48076 0.07543 0.25110 0.07649 0.03517 0.02468 0.00245 0.00191
0.00144 0.00541 0.00642 0.00705 0.02511 0.00124 0.00057 0.00477
```

Table 4.2-5, Continued

```
AVERAGE SPEED      : 32.32 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 210, 25.0 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48821 0.07660 0.25501 0.07768 0.03572 0.01885 0.00187 0.00146
0.00110 0.00413 0.00491 0.00538 0.01917 0.00095 0.00044 0.00852
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 230, 57.99 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48761 0.07650 0.25469 0.07758 0.03567 0.02122 0.00211 0.00164
0.00124 0.00465 0.00552 0.00606 0.02159 0.00107 0.00049 0.00236
AVERAGE SPEED      : 57.99 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 250, 56.70 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49028 0.07693 0.25609 0.07801 0.03587 0.01978 0.00196 0.00153
0.00116 0.00434 0.00515 0.00565 0.02012 0.00100 0.00046 0.00167
AVERAGE SPEED      : 56.70 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
```

Table 4.2-5, Continued

```
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 270, 48.46 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 48.46 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 290, 42.23 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49739 0.07804 0.25979 0.07914 0.03639 0.01465 0.00145 0.00113
0.00086 0.00321 0.00381 0.00418 0.01491 0.00074 0.00034 0.00397
AVERAGE SPEED      : 42.23 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 310, 35 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 35 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : YORK, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
```

Table 4.2-5, Continued

```
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :



EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\GLOUC05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                     85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 1
FUEL RVP           : 8.4
SEASON             : 1

SCENARIO RECORD    : GLOUCESTER, ROADSCC 130, 59 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.43855 0.06881 0.22907 0.06978 0.03209 0.05197 0.00516 0.00402
0.00304 0.01139 0.01353 0.01484 0.05287 0.00262 0.00120 0.00106
AVERAGE SPEED      : 59 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : GLOUCESTER, ROADSCC 150, 50 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46912 0.07360 0.24503 0.07464 0.03432 0.03271 0.00325 0.00253
0.00191 0.00717 0.00851 0.00934 0.03327 0.00165 0.00076 0.00219
AVERAGE SPEED      : 50 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357
```

Table 4.2-5, Continued

```
SCENARIO RECORD    : GLOUCESTER, ROADSCC 170, 35 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48076 0.07543 0.25110 0.07649 0.03517 0.02468 0.00245 0.00191
0.00144 0.00541 0.00642 0.00705 0.02511 0.00124 0.00057 0.00477
AVERAGE SPEED      : 35 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : GLOUCESTER, ROADSCC 190, 37 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 37 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : GLOUCESTER, ROADSCC 210, 25.0 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48821 0.07660 0.25501 0.07768 0.03572 0.01885 0.00187 0.00146
0.00110 0.00413 0.00491 0.00538 0.01917 0.00095 0.00044 0.00852
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : GLOUCESTER, ROADSCC 270, 50 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49984 0.07842 0.26108 0.07953 0.03657 0.01345 0.00134 0.00104
0.00079 0.00295 0.00350 0.00384 0.01369 0.00068 0.00031 0.00297
AVERAGE SPEED      : 50 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
```

Table 4.2-5, Continued

```
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : GLOUCESTER, ROADSCC 310, 27 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.49730 0.07803 0.25975 0.07912 0.03638 0.01456 0.00144 0.00113
0.00085 0.00319 0.00379 0.00416 0.01481 0.00073 0.00034 0.00442
AVERAGE SPEED      : 27 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : GLOUCESTER, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.50791 0.07969 0.26529 0.08081 0.03716 0.00777 0.00077 0.00060
0.00045 0.00170 0.00202 0.00222 0.00791 0.00039 0.00018 0.00513
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                      49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :


EXPRESS HC AS VOC  :
REG DIST           : C:\MOBILE62\HAMPTON\2005\ISLEW05.RDT
NO REFUELING       :
94+ LDG IMP        : C:\MOBILE62\HAMPTON\NLEVNE.D
HOURLY TEMPERATURES: 71.77 75.20 77.80 81.07 83.04 84.34 85.79 86.59 87.40
87.27 87.60 87.01
                      85.51 83.21 79.39 77.90 77.02 75.38 73.31 72.91 72.71
71.90 71.20 70.73
FUEL PROGRAM       : 1
FUEL RVP           : 8.4
SEASON             : 1

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 130, 48 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
```

Table 4.2-5, Continued

```
VMT FRACTIONS      :
0.43855 0.06881 0.22907 0.06978 0.03209 0.05197 0.00516 0.00402
0.00304 0.01139 0.01353 0.01484 0.05287 0.00262 0.00120 0.00106
AVERAGE SPEED      : 48 FREEWAY 92.0 0.0 0.0 8.0
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 150, 43 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46912 0.07360 0.24503 0.07464 0.03432 0.03271 0.00325 0.00253
0.00191 0.00717 0.00851 0.00934 0.03327 0.00165 0.00076 0.00219
AVERAGE SPEED      : 43 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 170, 38 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48076 0.07543 0.25110 0.07649 0.03517 0.02468 0.00245 0.00191
0.00144 0.00541 0.00642 0.00705 0.02511 0.00124 0.00057 0.00477
AVERAGE SPEED      : 38 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 190, 43 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 43 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
```

Table 4.2-5, Continued

```
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 210, 25.0 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48821 0.07660 0.25501 0.07768 0.03572 0.01885 0.00187 0.00146
0.00110 0.00413 0.00491 0.00538 0.01917 0.00095 0.00044 0.00852
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 270, 48 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 48 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 290, 43 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 43 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 310, 38 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
```

Table 4.2-5, Continued

```
0.46669 0.07322 0.24376 0.07425 0.03414 0.03313 0.00329 0.00256
0.00194 0.00726 0.00862 0.00946 0.03371 0.00167 0.00077 0.00553
AVERAGE SPEED      : 38 ARTERIAL
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

SCENARIO RECORD    : ISLE OF WIGHT, ROADSCC 330, 12.9 MPH
CALENDAR YEAR      : 2005
EVALUATION MONTH   : 7
VMT FRACTIONS      :
0.48821 0.07660 0.25501 0.07768 0.03572 0.01885 0.00187 0.00146
0.00110 0.00413 0.00491 0.00538 0.01917 0.00095 0.00044 0.00852
VMT BY FACILITY    : C:\MOBILE62\HAMPTON\LOCAL.TXT
RELATIVE HUMIDITY  : 83.9 78.1 72.7 63.0 58.5 54.5 50.0 48.9 46.6 46.0 44.7
46.7
                     49.1 55.9 69.0 73.3 74.5 78.1 79.8 80.7 81.7 78.1 82.8
84.3
BAROMETRIC PRES    : 30.004
PARTICULATE EF     : PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 357

END OF RUN         :
```

Table 4.2-6
Sample Mobile6.2 Output File

```
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 1).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\CHESA05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* CHESAPEAKE, ROADSCC 230, 55.64 MPH
* File 1, Run 1, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.6
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

* Reading Ammonia (NH3) Basic Emissiion Rates
* from the external data file PMNH3BER.D

* Reading Ammonia (NH3) Sulfur Deterioration Rates
* from the external data file PMNH3SDR.D

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm
```

Table 4.2-6, Continued

```
             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4867    0.3311    0.1116              0.0193    0.0009    0.0018    0.0463    0.0024    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.877     0.769     0.772     0.770     0.588    0.597     0.482     0.319      2.24     0.801
     Composite CO  :     13.85     13.89     13.77     13.86      8.80     1.598     0.904     1.903     13.50    13.166
     Composite NOX :      0.957     1.052     1.209     1.092     4.772    1.903     1.477    14.092      1.40     1.701
  -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* CHESAPEAKE, ROADSCC 250, 56.47 MPH
* File 1, Run 1, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 56.5
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                   Calendar Year:  2005
                           Month:  July
                        Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4894    0.3329    0.1122              0.0180    0.0009    0.0018    0.0431    0.0017    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.875     0.766     0.769     0.767     0.586    0.596     0.481     0.318      2.30     0.799
     Composite CO  :     13.96     13.99     13.87     13.96      9.02     1.607     0.910     1.929     14.64    13.317
     Composite NOX :      0.959     1.056     1.212     1.095     4.800    1.955     1.519    14.443      1.42     1.673
  -----------------------------------------------------------------------------------------------------------------------
```

Table 4.2-6, Continued

```
* # # # # # # # # # # # # # # # # # # # # # # # # # #
* CHESAPEAKE, ROADSCC 270, 45.35 MPH
* File 1, Run 1, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 45.3
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4989    0.3394    0.1144              0.0123    0.0009    0.0018    0.0293    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.913     0.798     0.801     0.799     0.639    0.622     0.507     0.349      2.02     0.844
     Composite CO  :     11.77     12.08     12.07     12.08      7.07     1.537     0.861     1.721      8.97    11.518
     Composite NOX :      0.911     0.990     1.147     1.030     4.408    1.403     1.082     9.418      1.15     1.259
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* CHESAPEAKE, ROADSCC 290, 42.39 MPH
* File 1, Run 1, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 42.4
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV
```

Table 4.2-6, Continued

```
* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3377    0.1139              0.0133    0.0009    0.0018    0.0319    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.926     0.809     0.812     0.809     0.666    0.636     0.521     0.367      2.05     0.856
     Composite CO  :     11.41     11.74     11.74     11.74      7.13     1.553     0.872     1.768      9.31    11.157
     Composite NOX :      0.905     0.980     1.137     1.019     4.317    1.354     1.043     9.094      1.13     1.265
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* CHESAPEAKE, ROADSCC 310, 20.42 MPH
* File 1, Run 1, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 20.4
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
```

Table 4.2-6, Continued

```
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3377    0.1138              0.0133    0.0009    0.0018    0.0317    0.0044    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.157     0.999     1.009     1.001     1.226    0.880     0.765     0.668      2.68     1.078
     Composite CO  :     10.77     10.93     11.04     10.96     13.37     2.123     1.270     3.465     16.62    10.660
     Composite NOX :      1.038     1.074     1.249     1.118     3.619    1.443     1.114     9.691      0.95     1.383
  -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* CHESAPEAKE, ROADSCC 330, 12.9 MPH
* File 1, Run 1, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                   Calendar Year:  2005
                          Month:  July
                       Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5069    0.3449    0.1163              0.0071    0.0010    0.0018    0.0169    0.0051    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.405     1.218     1.235     1.222     1.846    1.073     0.958     0.906      3.34     1.324
     Composite CO  :      9.06     10.16     10.34     10.21     21.21     2.756     1.711     5.350     24.48     9.674
```

Table 4.2-6, Continued

```
     Composite NOX :      0.928     0.948     1.116     0.990     3.377    1.714     1.328    10.527      0.89     1.138
  ---------------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 2).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\HAMPT05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* HAMPTON, ROADSCC 230, 55.17 MPH
* File 1, Run 2, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.2
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
```

Table 4.2-6, Continued

```
              Maximum Rel. Hum.:  84.3 (%)
            Barometric Pressure: 30.00 (inches Hg)
               Nominal Fuel RVP:   6.8 psi
                  Weathered RVP:   6.6 psi
            Fuel Sulfur Content:   90. ppm

            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4865    0.3310    0.1116              0.0196    0.0011    0.0018    0.0460    0.0024    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.029     1.001     0.999     1.001     0.830    0.651     0.619     0.351      2.21     0.983
     Composite CO  :     14.87     15.82     15.71     15.80     11.53     1.681     1.142     2.136     12.82    14.586
     Composite NOX :      1.038     1.148     1.286     1.183     5.104    2.014     1.616    14.810      1.39     1.818
  -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* HAMPTON, ROADSCC 250, 55.0 MPH
* File 1, Run 2, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                           Month:  July
                        Altitude:  Low
            Minimum Temperature:  70.7 (F)
            Maximum Temperature:  87.6 (F)
              Minimum Rel. Hum.:  44.7 (%)
              Maximum Rel. Hum.:  84.3 (%)
            Barometric Pressure: 30.00 (inches Hg)
               Nominal Fuel RVP:   6.8 psi
                  Weathered RVP:   6.6 psi
            Fuel Sulfur Content:   90. ppm

            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4892    0.3328    0.1123              0.0183    0.0011    0.0018    0.0429    0.0017    1.0000
  -----------------------------------------------------------------------------------------------------------------------
```

Table 4.2-6, Continued

```
 Composite Emission Factors (g/mi):
     Composite VOC :      1.029     1.002     1.000     1.001     0.831    0.651     0.619     0.352      2.20     0.985
     Composite CO  :     14.85     15.80     15.69     15.77     11.47     1.679     1.141     2.130     12.58    14.610
     Composite NOX :      1.037     1.148     1.286     1.182     5.098    2.002     1.606    14.731      1.38     1.766
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* HAMPTON, ROADSCC 270, 41.67 MPH
* File 1, Run 2, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 41.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                               Month:  July
                            Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4987    0.3393    0.1144              0.0124    0.0011    0.0019    0.0292    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.092     1.058     1.057     1.058     0.942    0.697     0.666     0.408      2.05     1.056
     Composite CO  :     12.30     13.51     13.53     13.52      9.51    1.644     1.115     2.017      9.40    12.475
     Composite NOX :      0.985     1.073     1.212     1.108     4.608    1.444     1.155     9.628      1.13     1.339
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* HAMPTON, ROADSCC 290, 39.58 MPH
* File 1, Run 2, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 39.6
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV
```

Table 4.2-6, Continued

```
* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                       ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
                GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4963    0.3376    0.1139              0.0135    0.0011    0.0019    0.0318    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.104     1.069     1.068     1.068     0.973    0.710     0.680     0.425      2.08     1.067
     Composite CO  :     12.01     13.24     13.26     13.24      9.64     1.661     1.128     2.072      9.71    12.177
     Composite NOX :      0.981     1.065     1.205     1.100     4.534    1.412     1.128     9.413      1.12     1.352
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* HAMPTON, ROADSCC 310, 25.59 MPH
* File 1, Run 2, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 25.6
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
```

Table 4.2-6, Continued

```
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4962    0.3376    0.1139              0.0134    0.0011    0.0019    0.0316    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.248     1.196     1.201     1.197     1.372    0.861     0.836     0.613      2.45     1.211
     Composite CO  :     11.33     12.50     12.61     12.53     13.92     1.974     1.360     3.094     13.86    11.626
     Composite NOX :      1.052     1.112     1.259     1.149     4.060    1.443     1.153     9.620      1.01     1.407
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* HAMPTON, ROADSCC 330, 12.9 MPH
* File 1, Run 2, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
```

Table 4.2-6, Continued

```
   VMT Distribution:    0.5068    0.3448    0.1163              0.0072    0.0011    0.0019    0.0168    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.644     1.565     1.583     1.570     2.493    1.165     1.153     0.995      3.33     1.612
     Composite CO  :     10.04     12.13     12.40     12.20     28.17     2.880     2.033     6.057     24.44    11.145
     Composite NOX :      1.013     1.041     1.191     1.079     3.624    1.843     1.477    11.211      0.89     1.235
  ---------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 3).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\NEWPO05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* NEWPORT NEWS, ROADSCC 230, 55.45 MPH
* File 1, Run 3, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.5
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
```

Table 4.2-6, Continued

```
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4867    0.3310    0.1116              0.0194    0.0009    0.0018    0.0462    0.0024    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.870     0.838     0.835     0.837     0.672    0.586     0.517     0.324      2.22     0.829
     Composite CO  :     13.09     13.96     13.72     13.90      9.99     1.558     0.964     1.978     13.20    12.847
     Composite NOX :      0.908     1.030     1.155     1.062     4.740    1.845     1.444    13.706      1.39     1.644
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NEWPORT NEWS, ROADSCC 270, 42.63 MPH
* File 1, Run 3, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 42.6
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
```

Table 4.2-6, Continued

```
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:     0.4989    0.3393    0.1144              0.0123    0.0009    0.0018    0.0293    0.0030    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.919     0.881     0.879     0.881     0.755    0.623     0.554     0.371      2.04     0.886
     Composite CO  :     10.88     11.95     11.84     11.92      8.14    1.515     0.933     1.839      9.26    11.021
     Composite NOX :      0.861     0.963     1.088     0.994     4.302    1.325     1.031     8.957      1.13     1.202
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NEWPORT NEWS, ROADSCC 290, 39.62 MPH
* File 1, Run 3, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 39.6
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:     0.4965    0.3377    0.1139              0.0134    0.0009    0.0018    0.0319    0.0040    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.934     0.894     0.891     0.893     0.791    0.639     0.571     0.392      2.07     0.900
     Composite CO  :     10.51     11.59     11.50     11.57      8.28    1.536     0.948     1.907      9.69    10.657
     Composite NOX :      0.855     0.952     1.078     0.984     4.203    1.281     0.996     8.656      1.12     1.208
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NEWPORT NEWS, ROADSCC 310, 17.74 MPH
* File 1, Run 3, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
```

Table 4.2-6, Continued

```
            The user supplied arterial average speed of 17.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3376    0.1138              0.0133    0.0009    0.0018    0.0317    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.224     1.158     1.163     1.160     1.560    0.918     0.852     0.747      2.84     1.190
     Composite CO  :     10.75     11.59     11.64     11.60     17.68     2.243     1.444     4.151     18.58    11.027
     Composite NOX :      1.035     1.097     1.241     1.133     3.523    1.481     1.155    10.028      0.93     1.398
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NEWPORT NEWS, ROADSCC 330, 12.9 MPH
* File 1, Run 3, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
```

Table 4.2-6, Continued

```
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5070    0.3448    0.1163              0.0071    0.0009    0.0019    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.395     1.320     1.328     1.322     2.059    1.054     0.988     0.919      3.32     1.367
     Composite CO  :      8.74     10.53     10.65     10.56     24.22     2.692     1.760     5.580     24.42     9.697
     Composite NOX :      0.884     0.931     1.066     0.965     3.359    1.673     1.307    10.451      0.89     1.103
  ---------------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 4).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\NORFO05.RDT
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NORFOLK, ROADSCC 230, 55.12 MPH
* File 1, Run 4, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.1
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
```

Table 4.2-6, Continued

```
 M 48 Warning:
             there are no sales for vehicle class HDGV8b

LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                           Month:  July
                        Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

  Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
  Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                         Alcohol Blend RVP Waiver: No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.4867    0.3310    0.1116              0.0194    0.0009    0.0018    0.0462    0.0024    1.0000
 ---------------------------------------------------------------------------------------------------------------------
Composite Emission Factors (g/mi):
    Composite VOC :      0.895     0.874     0.874     0.874     0.662    0.590     0.536     0.326      2.17     0.857
    Composite CO  :      13.54     14.73     14.60     14.69      9.52    1.568     0.993     1.968     12.66    13.402
    Composite NOX :      0.941     1.097     1.239     1.133     4.766    1.841     1.507    13.859      1.38     1.700
 ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NORFOLK, ROADSCC 250, 54.98 MPH
* File 1, Run 4, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                           Month:  July
                        Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No
```

Table 4.2-6, Continued

```
   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4894    0.3329    0.1122              0.0181    0.0009    0.0018    0.0431    0.0017    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.895     0.875     0.874     0.875     0.662    0.590     0.536     0.326      2.16     0.858
     Composite CO  :     13.52     14.71     14.58     14.68      9.48     1.567     0.991     1.963     12.46    13.428
     Composite NOX :      0.941     1.096     1.239     1.132     4.762    1.832     1.500    13.797      1.38     1.651
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NORFOLK, ROADSCC 270, 41.72 MPH
* File 1, Run 4, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 41.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4989    0.3393    0.1144              0.0123    0.0009    0.0018    0.0293    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.947     0.922     0.924     0.923     0.753    0.632     0.580     0.379      2.02     0.919
     Composite CO  :     11.15     12.50     12.50     12.50      7.86     1.534     0.967     1.859      9.31    11.421
     Composite NOX :      0.891     1.023     1.167     1.060     4.307    1.323     1.077     9.041      1.12     1.250
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NORFOLK, ROADSCC 290, 37.49 MPH
* File 1, Run 4, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
```

Table 4.2-6, Continued

```
              User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 37.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4965    0.3377    0.1139              0.0134    0.0009    0.0018    0.0319    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.969     0.942     0.943     0.942     0.810    0.658     0.608     0.412      2.08     0.940
     Composite CO  :     10.64     11.99     12.00     11.99      8.22     1.575     0.997     1.988     10.03    10.915
     Composite NOX :      0.885     1.010     1.156     1.047     4.173    1.280     1.041     8.748      1.10     1.254
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NORFOLK, ROADSCC 310, 11.55 MPH
* File 1, Run 4, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 11.6
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV
```

Table 4.2-6, Continued

```
* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3376    0.1138              0.0133    0.0009    0.0018    0.0317    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.559     1.507     1.529     1.512     2.188    1.097     1.072     0.968      3.51     1.535
     Composite CO  :     12.95     13.86     14.10     13.92     25.33     2.857     1.936     6.024     27.07    13.368
     Composite NOX :      1.278     1.357     1.545     1.404     3.358    1.743     1.425    11.915      0.89     1.699
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* NORFOLK, ROADSCC 330, 12.9 MPH
* File 1, Run 4, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
```

Table 4.2-6, Continued

```
                    ATP Program:  No
              Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5070    0.3448    0.1163              0.0071    0.0009    0.0019    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.429     1.378     1.395     1.383     2.025    1.061     1.034     0.924      3.28     1.412
     Composite CO  :      9.00     11.05     11.27     11.11     23.30     2.717     1.833     5.585     24.30    10.076
     Composite NOX :      0.916     0.992     1.146     1.031     3.386    1.688     1.380    10.575      0.88     1.152
  ---------------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 5).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\POQUO05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* POQUOSON, ROADSCC 290, 43.95 MPH
* File 1, Run 5, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 44.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
```

Table 4.2-6, Continued

```
 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4960    0.3376    0.1139              0.0135    0.0014    0.0018    0.0318    0.0040    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.002     0.963     0.972     0.965     0.871    0.734     0.607     0.384      2.10     0.967
     Composite CO  :     12.03     13.07     13.14     13.09      9.33    1.715     1.027     1.914      9.25    12.102
     Composite NOX :      0.930     1.038     1.188     1.076     4.569    1.571     1.142     9.345      1.15     1.314
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* POQUOSON, ROADSCC 310, 35 MPH
* File 1, Run 5, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 35.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
```

Table 4.2-6, Continued

```
                                        Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4959    0.3376    0.1138              0.0134    0.0014    0.0018    0.0316    0.0044    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.052     1.005     1.015     1.008     1.014    0.800     0.669     0.460      2.24     1.017
     Composite CO  :      10.88     11.96     12.06     11.99     10.26    1.809     1.093     2.205     10.81    11.068
     Composite NOX :      0.914     1.010     1.163     1.049     4.268    1.464     1.062     8.685      1.10     1.267
  -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* POQUOSON, ROADSCC 330, 12.9 MPH
* File 1, Run 5, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
                 Maximum Rel. Hum.:  84.3 (%)
               Barometric Pressure: 30.00 (inches Hg)
                  Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
               Fuel Sulfur Content:   90. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5065    0.3448    0.1163              0.0072    0.0014    0.0019    0.0169    0.0051    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.514     1.441     1.471     1.449     2.398    1.242     1.086     0.974      3.42     1.490
     Composite CO  :      9.63      11.40     11.71     11.48     27.93    2.992     1.925     5.886     24.66    10.606
     Composite NOX :      0.950     0.999     1.160     1.040     3.535    1.953     1.425    10.794      0.90     1.178
  -----------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 6).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\PORTS05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
```

Table 4.2-6, Continued

```
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* PORTSMOUTH, ROADSCC 230, 55 MPH
* File 1, Run 6, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
```

Table 4.2-6, Continued

```
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.4866    0.3310    0.1116              0.0195    0.0010    0.0018    0.0461    0.0024    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.055     0.995     1.008     0.998     0.775    0.631     0.609     0.345      2.25     0.993
     Composite CO  :     15.24     16.01     16.09     16.03     10.57     1.645     1.120     2.050     12.70    14.843
     Composite NOX :      1.071     1.176     1.326     1.214     5.087    1.955     1.619    14.872      1.39     1.851
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* PORTSMOUTH, ROADSCC 250, 55.3 MPH
* File 1, Run 6, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.3
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
                GVWR:              <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.4893    0.3328    0.1123              0.0182    0.0010    0.0018    0.0430    0.0017    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.054     0.994     1.007     0.997     0.774    0.630     0.609     0.345      2.27     0.994
     Composite CO  :     15.28     16.05     16.13     16.07     10.67     1.648     1.123     2.061     13.12    14.937
     Composite NOX :      1.072     1.177     1.328     1.215     5.099    1.975     1.636    15.011      1.40     1.810
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* PORTSMOUTH, ROADSCC 270, 42.89 MPH
* File 1, Run 6, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 42.9
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
```

Table 4.2-6, Continued

```
* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4988    0.3393    0.1144              0.0124    0.0010    0.0019    0.0292    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.113     1.045     1.061     1.049     0.866    0.668     0.649     0.392      2.09     1.062
     Composite CO  :     12.78     13.82     14.01     13.87      8.71     1.603     1.088     1.916      9.34    12.863
     Composite NOX :      1.021     1.104     1.256     1.143     4.641    1.430     1.180     9.845      1.14     1.380
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* PORTSMOUTH, ROADSCC 290, 38.98 MPH
* File 1, Run 6, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 39.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
```

Table 4.2-6, Continued

```
 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
                GVWR:              <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3376    0.1139              0.0135    0.0010    0.0018    0.0318    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.137     1.065     1.082     1.069     0.921    0.692     0.675     0.422      2.14     1.084
     Composite CO  :     12.24     13.31     13.50     13.36      8.96     1.634     1.112     2.016      9.93    12.333
     Composite NOX :      1.013     1.091     1.243     1.129     4.506    1.375     1.133     9.469      1.12     1.382
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* PORTSMOUTH, ROADSCC 310, 23.0 MPH
* File 1, Run 6, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 23.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No
```

Table 4.2-6, Continued

```
       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4963    0.3376    0.1139              0.0134    0.0010    0.0018    0.0316    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.332     1.235     1.261     1.241     1.415    0.878     0.875     0.656      2.61     1.275
     Composite CO  :     11.79     12.75     13.05     12.83     14.39     2.050     1.426     3.331     15.22    12.013
     Composite NOX :      1.122     1.170     1.333     1.211     3.969    1.455     1.200    10.016      0.99     1.481
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* PORTSMOUTH, ROADSCC 330, 12.9 MPH
* File 1, Run 6, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5069    0.3448    0.1163              0.0071    0.0010    0.0019    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.693     1.564     1.606     1.574     2.348    1.133     1.150     0.977      3.39     1.638
     Composite CO  :     10.23     12.20     12.64     12.31     25.96     2.838     2.023     5.829     24.61    11.281
     Composite NOX :      1.046     1.066     1.228     1.107     3.617    1.800     1.489    11.260      0.89     1.266
  ---------------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 7).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\SUFFO05.RDT
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
```

Table 4.2-6, Continued

```
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
              User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
              User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 130, 49.68 MPH
* File 1, Run 7, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 49.7
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
```

Table 4.2-6, Continued

```
   VMT Distribution:    0.4376    0.2977    0.1004              0.0477    0.0009    0.0016    0.1129    0.0011    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.007     0.920     0.937     0.924     0.771    0.653     0.586     0.351      1.99     0.889
     Composite CO  :     13.70     14.07     14.12     14.08      9.31    1.621     1.034     1.894      8.83    12.274
     Composite NOX :      0.992     1.065     1.219     1.103     4.731    1.666     1.300    12.075      1.23     2.468
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 150, 43.73 MPH
* File 1, Run 7, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 43.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4681    0.3184    0.1074              0.0300    0.0010    0.0017    0.0711    0.0022    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.029     0.937     0.956     0.942     0.823    0.675     0.609     0.379      2.01     0.941
     Composite CO  :     12.22     12.83     12.97     12.87      8.75    1.617     1.031     1.882      9.09    11.617
     Composite NOX :      0.961     1.022     1.176     1.061     4.517    1.458     1.136     9.437      1.13     1.714
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 170, 40.87 MPH
* File 1, Run 7, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 40.9
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
```

Table 4.2-6, Continued

```
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4797    0.3263    0.1101              0.0227    0.0010    0.0018    0.0536    0.0048    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.044     0.949     0.968     0.954     0.858    0.692     0.625     0.398      2.04     0.970
     Composite CO  :     11.84     12.48     12.63     12.52      8.87    1.635     1.044     1.941      9.46    11.497
     Composite NOX :      0.954     1.011     1.166     1.050     4.422    1.411     1.098     9.126      1.12     1.514
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 190, 40.49 MPH
* File 1, Run 7, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 40.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
```

Table 4.2-6, Continued

```
                          Month:  July
                       Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4657    0.3168    0.1068              0.0304    0.0010    0.0017    0.0720    0.0055    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.046     0.951     0.970     0.956     0.863    0.694     0.628     0.401      2.04     0.960
     Composite CO  :     11.79     12.43     12.58     12.47      8.88    1.638     1.046     1.949      9.51    11.238
     Composite NOX :      0.953     1.010     1.165     1.049     4.408    1.404     1.093     9.082      1.12     1.686
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 210, 25.0 MPH
* File 1, Run 7, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                   Calendar Year:  2005
                          Month:  July
                       Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
```

Table 4.2-6, Continued

```
              GVWR:              <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4872    0.3314    0.1118              0.0173    0.0011    0.0018    0.0409    0.0085    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.565     1.400     1.444     1.411     2.267    1.149     1.085     0.956      3.31     1.498
     Composite CO  :      9.71     11.19     11.56     11.28     26.19     2.859     1.924     5.773     24.39    10.634
     Composite NOX :      0.983     0.985     1.149     1.026     3.500    1.818     1.420    10.825      0.88     1.449
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 230, 58 MPH
* File 1, Run 7, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 58.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:              <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4866    0.3310    0.1116              0.0195    0.0011    0.0018    0.0461    0.0024    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.970     0.887     0.903     0.891     0.741    0.640     0.574     0.335      2.39     0.903
     Composite CO  :     14.90     15.18     15.21     15.19     11.97     1.712     1.099     2.180     16.91    14.350
     Composite NOX :      1.018     1.101     1.255     1.140     5.033    2.233     1.749    15.788      1.46     1.835
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 250, 58 MPH
* File 1, Run 7, Scenario 7.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 58.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
```

Table 4.2-6, Continued

```
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4892    0.3328    0.1122              0.0182    0.0011    0.0018    0.0430    0.0017    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.970     0.887     0.903     0.891     0.741     0.640     0.574     0.335      2.39     0.905
     Composite CO  :     14.90     15.18     15.21     15.19     11.97     1.712     1.099     2.180     16.91    14.393
     Composite NOX :      1.018     1.101     1.255     1.140     5.033     2.233     1.749    15.788      1.46     1.783
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 270, 49.68 MPH
* File 1, Run 7, Scenario 8.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 49.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
```

Table 4.2-6, Continued

```
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4988    0.3393    0.1144              0.0124    0.0011    0.0019    0.0292    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.999     0.913     0.930     0.917     0.768    0.651     0.584     0.348      1.98     0.942
     Composite CO  :     12.98     13.54     13.66     13.57      8.98     1.605     1.022     1.845      8.69    12.827
     Composite NOX :      0.974     1.044     1.197     1.083     4.710    1.610     1.255    10.428      1.20     1.348
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 290, 43.73 MPH
* File 1, Run 7, Scenario 9.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 43.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
```

Table 4.2-6, Continued

```
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4963    0.3376    0.1139              0.0135    0.0011    0.0019    0.0318    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.029     0.937     0.956     0.942     0.823    0.675     0.609     0.379      2.01     0.969
     Composite CO  :     12.22     12.83     12.97     12.87      8.75    1.617     1.031     1.882      9.09    12.089
     Composite NOX :      0.961     1.022     1.176     1.061     4.517    1.458     1.136     9.438      1.13     1.325
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 310, 28.38 MPH
* File 1, Run 7, Scenario 10.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 28.4
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4962    0.3376    0.1138              0.0134    0.0011    0.0019    0.0316    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.151     1.038     1.062     1.044     1.134    0.808     0.742     0.540      2.33     1.087
     Composite CO  :     10.91     11.56     11.77     11.62     11.63     1.861     1.207     2.648     12.66    10.959
     Composite NOX :      0.991     1.027     1.186     1.067     4.015    1.390     1.081     8.989      1.03     1.319
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* SUFFOLK, ROADSCC 330, 12.9 MPH
* File 1, Run 7, Scenario 11.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
```

Table 4.2-6, Continued

```
* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
                GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5068    0.3448    0.1163              0.0071    0.0011    0.0019    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.565     1.400     1.444     1.411     2.267    1.149     1.085     0.956      3.31     1.496
     Composite CO  :      9.71     11.19     11.56     11.28     26.18     2.859     1.924     5.775     24.39    10.538
     Composite NOX :      0.983     0.985     1.149     1.026     3.500    1.818     1.420    10.827      0.88     1.188
  ---------------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 8).          *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\VIRGI05.RDT
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
```

Table 4.2-6, Continued

```
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* VIRGINIA BEACH, ROADSCC 230, 55.12 MPH
* File 1, Run 8, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.1
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
                 Maximum Rel. Hum.:  84.3 (%)
               Barometric Pressure: 30.00 (inches Hg)
                  Nominal Fuel RVP:   6.8 psi
                      Weathered RVP:   6.6 psi
               Fuel Sulfur Content:   90. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4867    0.3311    0.1116              0.0193    0.0009    0.0017    0.0463    0.0024    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.825     0.708     0.712     0.709     0.554    0.570     0.445     0.316      2.11     0.747
     Composite CO  :     13.31     13.25     13.13     13.22      8.44     1.545     0.832     1.849     12.52    12.615
     Composite NOX :      0.921     1.019     1.179     1.060     4.676    1.793     1.400    13.467      1.37     1.638
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* VIRGINIA BEACH, ROADSCC 250, 55 MPH
* File 1, Run 8, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
```

Table 4.2-6, Continued

```
              User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 55.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
                GVWR:              <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4894    0.3329    0.1122              0.0180    0.0009    0.0017    0.0432    0.0017    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.825     0.708     0.712     0.709     0.554    0.570     0.445     0.316      2.10     0.748
     Composite CO  :      13.30     13.24     13.11     13.21      8.41     1.544     0.831     1.845     12.35    12.642
     Composite NOX :      0.921     1.019     1.179     1.059     4.672    1.786     1.394    13.415      1.37     1.591
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* VIRGINIA BEACH, ROADSCC 270, 41.45 MPH
* File 1, Run 8, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 41.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
```

Table 4.2-6, Continued

```
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4990    0.3394    0.1144              0.0122    0.0009    0.0018    0.0294    0.0030    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.872     0.745     0.749     0.746     0.636     0.611     0.486     0.368      1.96     0.799
     Composite CO  :     10.88     11.10     11.09     11.10      6.98     1.512     0.809     1.752      9.23    10.633
     Composite NOX :      0.868     0.946     1.107     0.987     4.216     1.284     0.994     8.729      1.11     1.195
  -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* VIRGINIA BEACH, ROADSCC 290, 39.69 MPH
* File 1, Run 8, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 39.7
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
```

Table 4.2-6, Continued

```
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4965    0.3377    0.1138              0.0133    0.0009    0.0018    0.0320    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.880     0.751     0.756     0.752     0.655    0.621     0.496     0.381      1.98     0.807
     Composite CO  :     10.65     10.89     10.88     10.89      7.06    1.525     0.819     1.792      9.48    10.397
     Composite NOX :      0.864     0.940     1.101     0.980     4.158    1.259     0.974     8.557      1.11     1.208
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* VIRGINIA BEACH, ROADSCC 310, 35 MPH
* File 1, Run 8, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 35.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3377    0.1138              0.0132    0.0009    0.0018    0.0318    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.904     0.769     0.774     0.770     0.720    0.654     0.529     0.422      2.07     0.830
     Composite CO  :     10.07     10.34     10.35     10.34      7.59    1.584     0.859     1.966     10.45     9.882
     Composite NOX :      0.858     0.927     1.091     0.969     4.011    1.231     0.951     8.357      1.08     1.189
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* VIRGINIA BEACH, ROADSCC 330, 12.9 MPH
```

Table 4.2-6, Continued

```
* File 1, Run 8, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5070    0.3449    0.1163              0.0071    0.0009    0.0018    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.315     1.123     1.141     1.127     1.755    1.025     0.902     0.894      3.21     1.233
     Composite CO  :      8.67      9.62      9.77      9.66     20.66     2.689     1.618     5.248     24.12     9.214
     Composite NOX :      0.893     0.919     1.090     0.962     3.321    1.644     1.281    10.313      0.87     1.103
  ---------------------------------------------------------------------------------------------------------------------------
**********************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                         *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 9).       *
**********************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\WILLI05.RDT
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
```

Table 4.2-6, Continued

```
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
              User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
              User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* WILLIAMSBURG, ROADSCC 250, 57.08 MPH
* File 1, Run 9, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M582 Warning:
           The user supplied freeway average speed of 57.1
           will be used for all hours of the day. 100% of VMT
           has been assigned to a fixed combination of freeways
           and freeway ramps for all hours of the day and all
            vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4895    0.3329    0.1122              0.0180    0.0008    0.0018    0.0432    0.0017    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.761     0.722     0.741     0.727     0.530    0.529     0.483     0.311      2.01     0.724
     Composite CO  :     13.21     13.62     13.65     13.63      9.19     1.508     0.923     1.892     14.66    12.804
     Composite NOX :      0.899     1.023     1.196     1.067     4.704    1.819     1.562    14.033      1.40     1.612
  ---------------------------------------------------------------------------------------------------------------------------
```

Table 4.2-6, Continued

```
* # # # # # # # # # # # # # # # # # # # # # # # # # #
* WILLIAMSBURG, ROADSCC 270, 45.98 MPH
* File 1, Run 9, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 46.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4990    0.3394    0.1144              0.0122    0.0008    0.0018    0.0294    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.790     0.749     0.770     0.755     0.573    0.550     0.506     0.340      1.72     0.760
     Composite CO  :     11.08     11.74     11.87     11.77      7.05     1.429     0.866     1.658      8.27    11.033
     Composite NOX :      0.851     0.958     1.131     1.001     4.320    1.285     1.096     9.007      1.11     1.203
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* WILLIAMSBURG, ROADSCC 290, 39.44 MPH
* File 1, Run 9, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 39.4
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV
```

Table 4.2-6, Continued

```
* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4966    0.3377    0.1138              0.0133    0.0008    0.0018    0.0320    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.816     0.772     0.793     0.777     0.635    0.581     0.539     0.380      1.78     0.785
     Composite CO  :      10.28     10.98     11.13     11.02      7.21    1.467     0.893     1.770      9.05    10.272
     Composite NOX :      0.835     0.934     1.109     0.978     4.117    1.186     1.010     8.283      1.08     1.183
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* WILLIAMSBURG, ROADSCC 310, 25.0 MPH
* File 1, Run 9, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 25.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
```

Table 4.2-6, Continued

```
                 Weathered RVP:   6.6 psi
           Fuel Sulfur Content:   90. ppm

           Exhaust I/M Program:  No
              Evap I/M Program:  No
                   ATP Program:  No
              Reformulated Gas:  No

  Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
  Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                         Alcohol Blend RVP Waiver: No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
             GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.4965    0.3377    0.1138              0.0132    0.0008    0.0018    0.0318    0.0044    1.0000
 -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.928     0.870     0.896     0.876     0.938    0.714     0.686     0.559      2.13     0.898
     Composite CO  :      9.65     10.27     10.48     10.33     10.65     1.779     1.118     2.700     13.29     9.741
     Composite NOX :      0.905     0.982     1.166     1.029     3.668    1.220     1.039     8.531      0.96     1.241
 -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # # #
* WILLIAMSBURG, ROADSCC 330, 12.9 MPH
* File 1, Run 9, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
             User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
           there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                 Calendar Year:  2005
                         Month:  July
                      Altitude:  Low
           Minimum Temperature:  70.7 (F)
           Maximum Temperature:  87.6 (F)
             Minimum Rel. Hum.:  44.7 (%)
             Maximum Rel. Hum.:  84.3 (%)
           Barometric Pressure: 30.00 (inches Hg)
              Nominal Fuel RVP:   6.8 psi
                 Weathered RVP:   6.6 psi
           Fuel Sulfur Content:   90. ppm

           Exhaust I/M Program:  No
              Evap I/M Program:  No
                   ATP Program:  No
              Reformulated Gas:  No

  Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
  Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                         Alcohol Blend RVP Waiver: No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
             GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.5071    0.3449    0.1163              0.0071    0.0008    0.0018    0.0170    0.0051    1.0000
 -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.217     1.142     1.186     1.153     1.720    0.960     0.956     0.888      2.90     1.193
     Composite CO  :      8.30      9.75     10.06      9.83     21.04     2.606     1.713     5.160     23.26     9.102
     Composite NOX :      0.862     0.914     1.098     0.960     3.294    1.550     1.327    10.147      0.85     1.083
```

Table 4.2-6, Continued

```
  ---------------------------------------------------------------------------------------------------------------------
**************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                             *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 10).          *
**************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\JAMES05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 110, 57.43 MPH
* File 1, Run 10, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 57.4
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
```

Table 4.2-6, Continued

```
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4847    0.3297    0.1112              0.0206    0.0010    0.0018    0.0489    0.0022    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.811     0.778     0.791     0.781     0.698    0.601     0.511     0.329      2.79     0.776
     Composite CO  :     13.53     14.06     13.99     14.04     11.21     1.638     0.978     2.108     17.23    13.125
     Composite NOX :      0.918     1.043     1.198     1.082     4.934    2.053     1.606    14.968      1.50     1.763
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 150, 45.28 MPH
* File 1, Run 10, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M583 Warning:
           The user supplied arterial average speed of 45.3
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                   Calendar Year:  2005
                           Month:  July
                        Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4682    0.3185    0.1074              0.0300    0.0009    0.0017    0.0711    0.0022    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.847     0.812     0.827     0.816     0.759    0.627     0.537     0.362      2.38     0.799
```

Table 4.2-6, Continued

```
    Composite CO  :     11.26     12.04     12.09     12.05      8.40     1.549     0.916     1.829      9.79    10.810
    Composite NOX :      0.866     0.973     1.129     1.012     4.495    1.405     1.092     9.365      1.19     1.643
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 170, 36.94 MPH
* File 1, Run 10, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 36.9
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                       ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4798    0.3264    0.1100              0.0226    0.0010    0.0018    0.0536    0.0048    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
    Composite VOC :      0.884     0.844     0.859     0.848     0.867    0.676     0.586     0.424      2.51     0.850
    Composite CO  :     10.26     11.09     11.16     11.11      8.97    1.618     0.964     2.046     11.11    10.138
    Composite NOX :      0.850     0.946     1.104     0.986     4.230    1.301     1.009     8.657      1.15     1.407
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 190, 35.14 MPH
* File 1, Run 10, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 35.1
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV
```

Table 4.2-6, Continued

```
* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4658    0.3168    0.1068              0.0304    0.0009    0.0017    0.0720    0.0055    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.893     0.852     0.867     0.856     0.899    0.690     0.600     0.442      2.55     0.853
     Composite CO  :     10.02     10.86     10.94     10.88      9.24    1.642     0.982     2.123     11.52     9.779
     Composite NOX :      0.847     0.941     1.099     0.981     4.167    1.289     0.999     8.574      1.14     1.564
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 210, 25.0 MPH
* File 1, Run 10, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
```

Table 4.2-6, Continued

```
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4872    0.3315    0.1118              0.0173    0.0010    0.0018    0.0410    0.0085    1.0000
  -----------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.295     1.228     1.264     1.237     2.149    1.080     0.991     0.938      3.87     1.290
     Composite CO  :      8.64     10.20     10.46     10.27     25.22     2.770     1.769     5.683     25.96     9.657
     Composite NOX :      0.881     0.932     1.099     0.974     3.447    1.719     1.341    10.577      0.94     1.366
  -----------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 230, 57.43 MPH
* File 1, Run 10, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 57.4
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4866    0.3310    0.1116              0.0195    0.0010    0.0018    0.0461    0.0024    1.0000
```

Table 4.2-6, Continued

```
 ---------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
    Composite VOC :      0.811     0.778     0.791     0.781     0.698    0.601     0.511     0.329      2.79     0.777
    Composite CO  :     13.53     14.06     13.99     14.04     11.21     1.638     0.978     2.108     17.23    13.161
    Composite NOX :      0.918     1.043     1.198     1.082     4.934    2.053     1.606    14.968      1.50     1.721
 ---------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 250, 56.83 MPH
* File 1, Run 10, Scenario 7.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 56.8
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4893    0.3329    0.1122              0.0181    0.0010    0.0018    0.0430    0.0017    1.0000
 ---------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
    Composite VOC :      0.813     0.780     0.793     0.783     0.698    0.601     0.511     0.329      2.73     0.779
    Composite CO  :     13.45     13.97     13.91     13.96     10.87     1.625     0.969     2.068     16.25    13.109
    Composite NOX :      0.916     1.040     1.195     1.079     4.911    1.991     1.557    14.543      1.48     1.650
 ---------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 270, 48.52 MPH
* File 1, Run 10, Scenario 8.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 48.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
```

Table 4.2-6, Continued

```
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                     ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4988    0.3393    0.1144              0.0123    0.0010    0.0018    0.0293    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.834     0.800     0.815     0.804     0.731    0.615     0.525     0.347      2.37     0.809
     Composite CO  :     11.66     12.43     12.46     12.44      8.59    1.546     0.914     1.819      9.61    11.651
     Composite NOX :      0.875     0.986     1.140     1.025     4.603    1.494     1.162     9.962      1.24     1.257
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 290, 45.28 MPH
* File 1, Run 10, Scenario 9.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 45.3
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
```

Table 4.2-6, Continued

```
                          Month:  July
                       Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4964    0.3377    0.1139              0.0134    0.0010    0.0018    0.0318    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.847     0.812     0.827     0.816     0.759    0.627     0.537     0.362      2.38     0.822
     Composite CO  :     11.26     12.04     12.09     12.05      8.40    1.549     0.916     1.829      9.79    11.243
     Composite NOX :      0.866     0.973     1.129     1.012     4.496    1.405     1.092     9.367      1.19     1.254
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 310, 35 MPH
* File 1, Run 10, Scenario 10.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 35.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                   Calendar Year:  2005
                          Month:  July
                       Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
```

Table 4.2-6, Continued

```
              GVWR:              <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4963    0.3376    0.1138              0.0133    0.0010    0.0018    0.0317    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.894     0.852     0.868     0.856     0.902    0.691     0.601     0.443      2.55     0.869
     Composite CO  :     10.00     10.84     10.92     10.86      9.26    1.644     0.983     2.130     11.56    10.115
     Composite NOX :      0.847     0.941     1.099     0.981     4.162    1.288     0.999     8.568      1.14     1.198
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* JAMES CITY, ROADSCC 330, 12.9 MPH
* File 1, Run 10, Scenario 11.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:              <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5069    0.3448    0.1163              0.0071    0.0010    0.0019    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.295     1.228     1.264     1.237     2.148    1.080     0.991     0.938      3.87     1.281
     Composite CO  :      8.64     10.20     10.46     10.27     25.21    2.770     1.769     5.685     25.96     9.529
     Composite NOX :      0.881     0.932     1.099     0.974     3.447    1.719     1.341    10.579      0.94     1.108
  ---------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 11).         *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\YORK05.RDT
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
```

Table 4.2-6, Continued

```
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 110, 57.99 MPH
* File 1, Run 11, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 58.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No
```

Table 4.2-6, Continued

```
       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:     0.4846    0.3297    0.1112              0.0206    0.0011    0.0018    0.0489    0.0022    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.865     0.803     0.806     0.803     0.704     0.637     0.514     0.331      2.50     0.811
     Composite CO  :      14.08     14.41     14.28     14.37     11.52     1.710     0.992     2.138     17.18    13.544
     Composite NOX :      0.951     1.064     1.216     1.103     4.987     2.218     1.665    15.496      1.47     1.816
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 150, 42.23 MPH
* File 1, Run 11, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 42.2
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
                 Maximum Rel. Hum.:  84.3 (%)
               Barometric Pressure: 30.00 (inches Hg)
                  Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
               Fuel Sulfur Content:   90. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:     0.4681    0.3185    0.1074              0.0300    0.0010    0.0017    0.0711    0.0022    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.920     0.853     0.857     0.854     0.800     0.680     0.556     0.383      2.12     0.852
     Composite CO  :      11.31     11.94     11.94     11.94      8.49     1.625     0.933     1.876      9.49    10.794
     Composite NOX :      0.891     0.981     1.133     1.019     4.429     1.426     1.061     9.089      1.14     1.636
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 170, 32.32 MPH
* File 1, Run 11, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 32.3
            will be used for all hours of the day.  100% of VMT
```

Table 4.2-6, Continued

```
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4797    0.3264    0.1100              0.0226    0.0011    0.0018    0.0537    0.0048    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.980     0.904     0.910     0.906     0.972    0.757     0.630     0.477      2.31     0.926
     Composite CO  :     10.31     10.97     11.00     10.97      9.92    1.758     1.025     2.286     11.58    10.139
     Composite NOX :      0.893     0.969     1.123     1.008     4.108    1.360     1.010     8.656      1.08     1.434
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 210, 25.0 MPH
* File 1, Run 11, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
```

Table 4.2-6, Continued

```
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4871    0.3315    0.1118              0.0173    0.0011    0.0018    0.0410    0.0085    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.384     1.276     1.295     1.280     2.174    1.140     0.999     0.943      3.44     1.350
     Composite CO  :      9.05     10.45     10.64     10.50     25.22     2.853     1.782     5.664     24.75     9.948
     Composite NOX :      0.914     0.950     1.113     0.991     3.469    1.807     1.351    10.651      0.90     1.393
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 230, 57.99 MPH
* File 1, Run 11, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 58.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                    Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No
```

Table 4.2-6, Continued

```
   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4865    0.3310    0.1116              0.0195    0.0011    0.0018    0.0461    0.0024    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.865     0.803     0.806     0.803     0.704    0.637     0.514     0.331      2.50     0.813
     Composite CO  :     14.08     14.41     14.28     14.37     11.52     1.710     0.992     2.138     17.18    13.581
     Composite NOX :      0.951     1.064     1.216     1.103     4.988    2.218     1.665    15.496      1.47     1.772
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 250, 56.70 MPH
* File 1, Run 11, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 56.7
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                      Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                       ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4892    0.3329    0.1122              0.0181    0.0011    0.0018    0.0430    0.0017    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.869     0.807     0.810     0.808     0.704    0.637     0.514     0.331      2.39     0.817
     Composite CO  :     13.89     14.23     14.10     14.19     10.79     1.682     0.972     2.052     15.16    13.426
     Composite NOX :      0.947     1.058     1.209     1.096     4.938    2.078     1.557    14.578      1.44     1.675
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 270, 48.46 MPH
* File 1, Run 11, Scenario 7.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
```

Table 4.2-6, Continued

```
              User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 48.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                      Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4987    0.3393    0.1144              0.0123    0.0011    0.0018    0.0293    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.893     0.829     0.833     0.830     0.739    0.652     0.528     0.349      2.08     0.849
     Composite CO  :     12.09     12.67     12.65     12.67      8.58     1.605     0.919     1.813      8.96    11.964
     Composite NOX :      0.906     1.004     1.155     1.042     4.631    1.568     1.170    10.020      1.20     1.282
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 290, 42.23 MPH
* File 1, Run 11, Scenario 8.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 42.2
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV
```

Table 4.2-6, Continued

```
* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4963    0.3377    0.1139              0.0134    0.0011    0.0018    0.0318    0.0040    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.920     0.853     0.857     0.854     0.800    0.680     0.556     0.383      2.12     0.875
     Composite CO  :     11.31     11.94     11.94     11.94      8.49     1.625     0.933     1.876      9.49    11.222
     Composite NOX :      0.891     0.981     1.133     1.019     4.429    1.426     1.061     9.091      1.14     1.259
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 310, 35 MPH
* File 1, Run 11, Scenario 9.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 35.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   6.8 psi
                     Weathered RVP:   6.6 psi
              Fuel Sulfur Content:   90. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
```

Table 4.2-6, Continued

```
                    ATP Program:  No
              Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4962    0.3376    0.1138              0.0133    0.0011    0.0018    0.0317    0.0044    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      0.957     0.884     0.888     0.885     0.911    0.731     0.605     0.446      2.24     0.913
     Composite CO  :     10.40     11.07     11.09     11.08      9.26    1.705     0.988     2.123     10.84    10.403
     Composite NOX :      0.879     0.960     1.113     0.998     4.189    1.354     1.006     8.619      1.10     1.224
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* YORK, ROADSCC 330, 12.9 MPH
* File 1, Run 11, Scenario 10.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   6.8 psi
                   Weathered RVP:   6.6 psi
             Fuel Sulfur Content:   90. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                    ATP Program:  No
              Reformulated Gas:  No

   Ether Blend Market Share: 1.000       Alcohol Blend Market Share: 0.000
   Ether Blend Oxygen Content: 0.021     Alcohol Blend Oxygen Content: 0.000
                                          Alcohol Blend RVP Waiver: No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5068    0.3448    0.1163              0.0071    0.0011    0.0019    0.0169    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.384     1.276     1.295     1.280     2.174    1.140     0.999     0.943      3.44     1.344
     Composite CO  :      9.05     10.45     10.64     10.50     25.22    2.853     1.782     5.666     24.75     9.837
     Composite NOX :      0.914     0.950     1.113     0.991     3.469    1.807     1.351    10.653      0.90     1.134
  ---------------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 12).         *
*************************************************************************
```

Table 4.2-6, Continued

```
* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\GLOUC05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
                User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
                User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 130, 59 MPH
* File 1, Run 12, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 59.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
                 Maximum Rel. Hum.:  84.3 (%)
               Barometric Pressure: 30.00 (inches Hg)
                  Nominal Fuel RVP:   8.4 psi
                      Weathered RVP:   8.1 psi
               Fuel Sulfur Content:   92. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No
```

Table 4.2-6, Continued

```
       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:     0.4374    0.2977    0.1004              0.0483    0.0012    0.0017    0.1123    0.0011    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :       1.191     1.211     1.211     1.211     1.097    0.698     0.653     0.364      2.82     1.102
     Composite CO  :      16.68     18.67     18.72     18.68     17.37     1.833     1.255     2.541     21.79    15.884
     Composite NOX :       1.069     1.233     1.368     1.267     5.324    2.515     1.966    17.435      1.51     3.195
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 150, 50 MPH
* File 1, Run 12, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 50.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
                 Maximum Rel. Hum.:  84.3 (%)
               Barometric Pressure: 30.00 (inches Hg)
                  Nominal Fuel RVP:   8.4 psi
                     Weathered RVP:   8.1 psi
               Fuel Sulfur Content:   92. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:     0.4679    0.3184    0.1074              0.0304    0.0013    0.0018    0.0707    0.0022    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :       1.243     1.263     1.264     1.263     1.149    0.708     0.663     0.376      2.32     1.188
     Composite CO  :      14.52     16.69     16.85     16.73     12.46     1.701     1.157     2.088     10.40    14.474
     Composite NOX :       1.022     1.168     1.304     1.202     4.955    1.741     1.356    11.125      1.22     1.935
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 170, 35 MPH
* File 1, Run 12, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 35.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
```

Table 4.2-6, Continued

```
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4795    0.3263    0.1101              0.0229    0.0013    0.0018    0.0533    0.0048    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.374     1.374     1.375     1.374     1.429    0.801     0.757     0.490      2.49     1.332
     Composite CO  :     12.42     14.62     14.84     14.67     13.33     1.806     1.235     2.450     12.66    12.861
     Composite NOX :      0.993     1.117     1.256     1.152     4.437    1.466     1.139     9.357      1.11     1.589
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 190, 37 MPH
* File 1, Run 12, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 37.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
```

Table 4.2-6, Continued

```
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   8.4 psi
                   Weathered RVP:   8.1 psi
             Fuel Sulfur Content:   92. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4654    0.3168    0.1069              0.0308    0.0013    0.0018    0.0716    0.0055    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.353     1.356     1.358     1.357     1.375    0.783     0.739     0.468      2.45     1.296
     Composite CO  :     12.72     14.92     15.13     14.97     12.90     1.777     1.214     2.350     12.15    12.901
     Composite NOX :      0.996     1.122     1.261     1.157     4.512    1.481     1.151     9.458      1.12     1.780
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 210, 25.0 MPH
* File 1, Run 12, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   8.4 psi
                   Weathered RVP:   8.1 psi
             Fuel Sulfur Content:   92. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4869    0.3314    0.1118              0.0175    0.0013    0.0018    0.0407    0.0085    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      2.128     2.083     2.094     2.086     3.285    1.245     1.210     1.038      3.68     2.095
     Composite CO  :     11.21     14.28     14.79     14.41     36.29     2.991     2.124     6.536     28.80    12.997
     Composite NOX :      1.031     1.103     1.250     1.140     3.675    1.956     1.525    11.462      0.90     1.552
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 270, 50 MPH
```

Table 4.2-6, Continued

```
* File 1, Run 12, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 50.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
               there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                      Calendar Year:  2005
                              Month:  July
                           Altitude:  Low
               Minimum Temperature:  70.7 (F)
               Maximum Temperature:  87.6 (F)
                 Minimum Rel. Hum.:  44.7 (%)
                 Maximum Rel. Hum.:  84.3 (%)
               Barometric Pressure: 30.00 (inches Hg)
                  Nominal Fuel RVP:   8.4 psi
                     Weathered RVP:   8.1 psi
               Fuel Sulfur Content:   92. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4985    0.3393    0.1145              0.0125    0.0013    0.0019    0.0291    0.0030    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.243     1.263     1.264     1.263     1.149    0.708     0.663     0.376      2.32     1.227
     Composite CO  :     14.52     16.69     16.85     16.73     12.47     1.701     1.157     2.088     10.40    15.084
     Composite NOX :      1.022     1.168     1.304     1.202     4.955    1.741     1.356    11.125      1.22     1.449
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 310, 27 MPH
* File 1, Run 12, Scenario 7.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
                User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 27.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV
```

Table 4.2-6, Continued

```
* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                          ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4960    0.3375    0.1139              0.0135    0.0013    0.0019    0.0315    0.0044    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.505     1.491     1.497     1.493     1.747    0.899     0.857     0.611      2.72     1.478
     Composite CO  :     12.33     14.46     14.76     14.54     16.96     2.012     1.389     3.158     15.69    13.082
     Composite NOX :      1.054     1.164     1.307     1.200     4.169    1.513     1.176     9.662      1.04     1.434
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* GLOUCESTER, ROADSCC 330, 12.9 MPH
* File 1, Run 12, Scenario 8.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
```

Table 4.2-6, Continued

```
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.5065    0.3447    0.1163              0.0072    0.0014    0.0019    0.0168    0.0051    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      2.128     2.083     2.094     2.086     3.284    1.245     1.210     1.038      3.68     2.103
     Composite CO  :     11.21     14.28     14.79     14.41     36.28     2.991     2.124     6.538     28.80    12.847
     Composite NOX :      1.031     1.103     1.250     1.140     3.675    1.956     1.525    11.464      0.90     1.277
  ---------------------------------------------------------------------------------------------------------------------
*************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                            *
* Input file: C:\02SIP\HAMPTON\2005\HAMP05.IN (file 1, run 13).         *
*************************************************************************

* Reading Registration Distributions from the following external
* data file: C:\MOBILE62\HAMPTON\2005\ISLEW05.RDT
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
* data file: C:\MOBILE62\HAMPTON\NLEVNE.D
  M616 Comment:
               User has supplied post-1999 sulfur levels.

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 130, 48 MPH
* File 1, Run 13, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M582 Warning:
            The user supplied freeway average speed of 48.0
            will be used for all hours of the day. 100% of VMT
            has been assigned to a fixed combination of freeways
            and freeway ramps for all hours of the day and all
             vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
```

Table 4.2-6, Continued

```
 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   8.4 psi
                   Weathered RVP:   8.1 psi
             Fuel Sulfur Content:   92. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4374    0.2976    0.1004              0.0481    0.0012    0.0017    0.1126    0.0011    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.295     1.285     1.304     1.290     1.103     0.714     0.705     0.378      2.34     1.180
     Composite CO  :      15.19     16.98     17.24     17.05     12.26     1.705     1.224     2.015     10.63    14.261
     Composite NOX :      1.053     1.171     1.316     1.208     4.805     1.707     1.359    12.206      1.21     2.552
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 150, 43 MPH
* File 1, Run 13, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 43.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   8.4 psi
                   Weathered RVP:   8.1 psi
             Fuel Sulfur Content:   92. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4679    0.3184    0.1074              0.0303    0.0012    0.0018    0.0708    0.0022    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
```

Table 4.2-6, Continued

```
    Composite VOC :      1.327     1.310     1.329     1.315     1.173    0.737     0.729     0.406      2.37     1.252
    Composite CO  :     13.76     15.76     16.09     15.84     11.92     1.713     1.230     2.041     11.02    13.718
    Composite NOX :      1.024     1.131     1.277     1.168     4.624    1.553     1.236     9.842      1.15     1.820
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 170, 38 MPH
* File 1, Run 13, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 38.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                     Calendar Year:  2005
                             Month:  July
                          Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4795    0.3263    0.1101              0.0228    0.0013    0.0019    0.0534    0.0048    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
    Composite VOC :      1.372     1.346     1.366     1.351     1.270    0.771     0.765     0.447      2.44     1.314
    Composite CO  :     13.05     15.08     15.43     15.17     12.44     1.759     1.265     2.190     11.95    13.339
    Composite NOX :      1.015     1.114     1.261     1.151     4.456    1.485     1.181     9.406      1.13     1.603
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 190, 43 MPH
* File 1, Run 13, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 43.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV
```

Table 4.2-6, Continued

```
* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
                GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4655    0.3167    0.1069              0.0307    0.0012    0.0018    0.0718    0.0055    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.327     1.310     1.329     1.315     1.173    0.737     0.729     0.406      2.37     1.255
     Composite CO  :     13.76     15.76     16.09     15.84     11.92     1.713     1.230     2.041     11.02    13.693
     Composite NOX :      1.024     1.131     1.277     1.168     4.624    1.553     1.236     9.842      1.15     1.830
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 210, 25.0 MPH
* File 1, Run 13, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm
```

Table 4.2-6, Continued

```
             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4869    0.3313    0.1118              0.0174    0.0013    0.0019    0.0408    0.0085    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      2.173     2.064     2.105     2.075     3.134    1.240     1.250     1.013      3.71     2.109
     Composite CO  :     11.37     14.32     14.99     14.49     35.54     2.986     2.195     6.214     28.92    13.083
     Composite NOX :      1.050     1.092     1.248     1.132     3.602    1.951     1.555    11.294      0.90     1.549
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 270, 48 MPH
* File 1, Run 13, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 48.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
             there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
             Minimum Temperature:  70.7 (F)
             Maximum Temperature:  87.6 (F)
               Minimum Rel. Hum.:  44.7 (%)
               Maximum Rel. Hum.:  84.3 (%)
             Barometric Pressure: 30.00 (inches Hg)
                Nominal Fuel RVP:   8.4 psi
                     Weathered RVP:   8.1 psi
             Fuel Sulfur Content:   92. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4655    0.3167    0.1069              0.0307    0.0012    0.0018    0.0718    0.0055    1.0000
  ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.285     1.276     1.294     1.280     1.101    0.713     0.704     0.377      2.33     1.216
     Composite CO  :     14.47     16.44     16.75     16.52     12.06     1.698     1.219     1.991     10.54    14.308
     Composite NOX :      1.036     1.150     1.295     1.187     4.793    1.680     1.338    10.648      1.20     1.907
  ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 290, 43 MPH
* File 1, Run 13, Scenario 7.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 43.0
            will be used for all hours of the day.  100% of VMT
```

Table 4.2-6, Continued

```
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
                            Month:  July
                         Altitude:  Low
              Minimum Temperature:  70.7 (F)
              Maximum Temperature:  87.6 (F)
                Minimum Rel. Hum.:  44.7 (%)
                Maximum Rel. Hum.:  84.3 (%)
              Barometric Pressure: 30.00 (inches Hg)
                 Nominal Fuel RVP:   8.4 psi
                    Weathered RVP:   8.1 psi
              Fuel Sulfur Content:   92. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
               GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
   VMT Distribution:    0.4655    0.3167    0.1069              0.0307    0.0012    0.0018    0.0718    0.0055    1.0000
  ---------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
     Composite VOC :      1.327     1.310     1.329     1.315     1.173    0.737     0.729     0.406      2.37     1.255
     Composite CO  :     13.76     15.76     16.09     15.84     11.92     1.713     1.230     2.041     11.02    13.693
     Composite NOX :      1.024     1.131     1.277     1.168     4.624    1.553     1.236     9.842      1.15     1.830
  ---------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 310, 38 MPH
* File 1, Run 13, Scenario 8.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
               User supplied VMT mix.
  M583 Warning:
            The user supplied arterial average speed of 38.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                    Calendar Year:  2005
```

Table 4.2-6, Continued

```
                    Month:  July
                 Altitude:  Low
Minimum Temperature:  70.7 (F)
Maximum Temperature:  87.6 (F)
  Minimum Rel. Hum.:  44.7 (%)
  Maximum Rel. Hum.:  84.3 (%)
Barometric Pressure: 30.00 (inches Hg)
   Nominal Fuel RVP:   8.4 psi
      Weathered RVP:   8.1 psi
Fuel Sulfur Content:   92. ppm

Exhaust I/M Program:  No
   Evap I/M Program:  No
        ATP Program:  No
   Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.4655    0.3167    0.1069              0.0307    0.0012    0.0018    0.0718    0.0055    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
    Composite VOC :      1.372     1.346     1.366     1.351     1.270    0.771     0.765     0.447      2.44     1.298
    Composite CO  :     13.05     15.08     15.43     15.17     12.44    1.759     1.265     2.191     11.95    13.108
    Composite NOX :      1.015     1.114     1.261     1.151     4.456    1.485     1.181     9.407      1.13     1.782
 ---------------------------------------------------------------------------------------------------------------------------

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* ISLE OF WIGHT, ROADSCC 330, 12.9 MPH
* File 1, Run 13, Scenario 9.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M615 Comment:
              User supplied VMT mix.

* Reading Hourly Roadway VMT distribution from the following external
* data file: C:\MOBILE62\HAMPTON\LOCAL.TXT

  Reading User Supplied ROADWAY VMT Factors

* Reading PM Gas Carbon ZML Levels
* from the external data file PMGZML.CSV

* Reading PM Gas Carbon DR1 Levels
* from the external data file PMGDR1.CSV

* Reading PM Gas Carbon DR2 Levels
* from the external data file PMGDR2.CSV

* Reading PM Diesel Zero Mile Levels
* from the external data file PMDZML.CSV

* Reading the First PM Deterioration Rates
* from the external data file PMDDR1.CSV

* Reading the Second PM Deterioration Rates
* from the external data file PMDDR2.CSV
  M 48 Warning:
              there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file C:\MOBILE62\HAMPTON\NLEVNE.D
                   Calendar Year:  2005
                    Month:  July
                 Altitude:  Low
Minimum Temperature:  70.7 (F)
Maximum Temperature:  87.6 (F)
  Minimum Rel. Hum.:  44.7 (%)
  Maximum Rel. Hum.:  84.3 (%)
Barometric Pressure: 30.00 (inches Hg)
   Nominal Fuel RVP:   8.4 psi
      Weathered RVP:   8.1 psi
Fuel Sulfur Content:   92. ppm

Exhaust I/M Program:  No
   Evap I/M Program:  No
        ATP Program:  No
   Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC   All Veh
              GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------    ------
  VMT Distribution:    0.4869    0.3313    0.1118              0.0174    0.0013    0.0019    0.0408    0.0085    1.0000
 ---------------------------------------------------------------------------------------------------------------------------
 Composite Emission Factors (g/mi):
    Composite VOC :      2.173     2.064     2.105     2.075     3.134    1.240     1.250     1.013      3.71     2.109
    Composite CO  :     11.37     14.32     14.99     14.49     35.54    2.986     2.195     6.214     28.92    13.083
    Composite NOX :      1.050     1.092     1.248     1.132     3.602    1.951     1.555    11.294      0.90     1.549
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Table 4.2-6, Continued

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Chesapeake City	MC	0.064	0.028	0.368
Chesapeake City	LDGV	4.747	4.303	57.794
Chesapeake City	LDGT4	0.488	0.446	6.468
Chesapeake City	LDGT3	1.042	0.801	13.946
Chesapeake City	LDGT2	2.156	2.387	31.731
Chesapeake City	LDGT1	0.634	0.599	9.392
Chesapeake City	LDDV	0.004	0.01	0.01
Chesapeake City	LDDT34	0.006	0.018	0.012
Chesapeake City	LDDT12	0.003	0.004	0.005
Chesapeake City	HDGV8b	0.000	0.000	0.000
Chesapeake City	HDGV8a	0.000	0.000	0.000
Chesapeake City	HDGV7	0.005	0.022	0.069
Chesapeake City	HDGV6	0.009	0.045	0.113
Chesapeake City	HDGV5	0.004	0.022	0.053
Chesapeake City	HDGV4	0.003	0.009	0.036
Chesapeake City	HDGV3	0.004	0.017	0.062
Chesapeake City	HDGV2b	0.075	0.462	0.965
Chesapeake City	HDGB	0.003	0.008	0.059
Chesapeake City	HDDV8b	0.071	2.85	0.439
Chesapeake City	HDDV8a	0.017	0.698	0.096
Chesapeake City	HDDV7	0.015	0.372	0.053
Chesapeake City	HDDV6	0.008	0.203	0.028
Chesapeake City	HDDV5	0.001	0.026	0.004
Chesapeake City	HDDV4	0.002	0.054	0.01
Chesapeake City	HDDV3	0.002	0.052	0.01
Chesapeake City	HDDV2b	0.006	0.152	0.028
Chesapeake City	HDDBT	0.001	0.063	0.012
Chesapeake City	HDDBS	0.003	0.079	0.011
Total for Chesapeake City:		*9.374*	*13.732*	*121.776*
Gloucester County	MC	0.012	0.005	0.065
Gloucester County	LDGV	1.084	0.827	12.664
Gloucester County	LDGT4	0.135	0.087	1.755
Gloucester County	LDGT3	0.290	0.163	3.799
Gloucester County	LDGT2	0.533	0.453	7.257
Gloucester County	LDGT1	0.158	0.120	2.176
Gloucester County	LDDV	0.001	0.002	0.002
Gloucester County	LDDT34	0.001	0.003	0.002
Gloucester County	LDDT12	0.001	0.001	0.002
Gloucester County	HDGV8b	0.000	0.000	0.000
Gloucester County	HDGV8a	0.000	0.000	0.000
Gloucester County	HDGV7	0.003	0.009	0.049
Gloucester County	HDGV6	0.005	0.017	0.073
Gloucester County	HDGV5	0.002	0.008	0.033
Gloucester County	HDGV4	0.002	0.004	0.027
Gloucester County	HDGV3	0.003	0.007	0.047
Gloucester County	HDGV2b	0.041	0.159	0.551
Gloucester County	HDGB	0.002	0.004	0.042
Gloucester County	HDDV8b	0.025	0.971	0.175
Gloucester County	HDDV8a	0.006	0.236	0.036
Gloucester County	HDDV7	0.005	0.127	0.019

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Gloucester County	HDDV6	0.002	0.068	0.010
Gloucester County	HDDV5	0.000	0.008	0.001
Gloucester County	HDDV4	0.001	0.018	0.003
Gloucester County	HDDV3	0.001	0.018	0.003
Gloucester County	HDDV2b	0.002	0.052	0.009
Gloucester County	HDDBT	0.001	0.022	0.004
Total for Gloucester County		*0.001*	*0.024*	*0.004*
Hampton City	MC	0.046	0.020	0.261
Hampton City	LDGV	3.895	3.261	43.891
Hampton City	LDGT4	0.519	0.356	6.358
Hampton City	LDGT3	1.117	0.669	13.755
Hampton City	LDGT2	1.952	1.808	25.703
Hampton City	LDGT1	0.577	0.464	7.612
Hampton City	LDDV	0.004	0.009	0.009
Hampton City	LDDT34	0.005	0.012	0.009
Hampton City	LDDT12	0.004	0.005	0.007
Hampton City	HDGV8b	0.000	0.000	0.000
Hampton City	HDGV8a	0.000	0.000	0.000
Hampton City	HDGV7	0.006	0.019	0.083
Hampton City	HDGV6	0.010	0.037	0.125
Hampton City	HDGV5	0.005	0.017	0.058
Hampton City	HDGV4	0.004	0.008	0.046
Hampton City	HDGV3	0.005	0.015	0.080
Hampton City	HDGV2b	0.077	0.347	0.962
Hampton City	HDGB	0.004	0.009	0.076
Hampton City	HDDV8b	0.060	2.091	0.386
Hampton City	HDDV8a	0.014	0.510	0.081
Hampton City	HDDV7	0.011	0.268	0.043
Hampton City	HDDV6	0.006	0.145	0.023
Hampton City	HDDV5	0.001	0.017	0.003
Hampton City	HDDV4	0.002	0.038	0.007
Hampton City	HDDV3	0.002	0.038	0.008
Hampton City	HDDV2b	0.005	0.110	0.022
Hampton City	HDDBT	0.001	0.046	0.010
Hampton City	HDDBS	0.002	0.052	0.008
Total for Hampton City		*8.332*	*10.371*	*99.625*
Isle of Wight County	MC	0.015	0.005	0.088
Isle of Wight County	LDGV	1.230	0.861	12.427
Isle of Wight County	LDGT4	0.165	0.093	1.970
Isle of Wight County	LDGT3	0.355	0.175	4.267
Isle of Wight County	LDGT2	0.604	0.460	7.210
Isle of Wight County	LDGT1	0.178	0.121	2.157
Isle of Wight County	LDDV	0.001	0.002	0.002
Isle of Wight County	LDDT34	0.001	0.002	0.002
Isle of Wight County	LDDT12	0.001	0.001	0.002
Isle of Wight County	HDGV8b	0.000	0.000	0.000
Isle of Wight County	HDGV8a	0.000	0.000	0.000
Isle of Wight County	HDGV7	0.004	0.009	0.046
Isle of Wight County	HDGV6	0.006	0.017	0.069
Isle of Wight County	HDGV5	0.003	0.008	0.031
Isle of Wight County	HDGV4	0.002	0.004	0.025

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Isle of Wight County	HDGV3	0.003	0.007	0.045
Isle of Wight County	HDGV2b	0.049	0.172	0.543
Isle of Wight County	HDGB	0.003	0.004	0.043
Isle of Wight County	HDDV8b	0.032	0.894	0.182
Isle of Wight County	HDDV8a	0.007	0.218	0.039
Isle of Wight County	HDDV7	0.006	0.115	0.021
Isle of Wight County	HDDV6	0.003	0.062	0.011
Isle of Wight County	HDDV5	0.000	0.008	0.002
Isle of Wight County	HDDV4	0.001	0.017	0.003
Isle of Wight County	HDDV3	0.001	0.016	0.004
Isle of Wight County	HDDV2b	0.003	0.047	0.010
Isle of Wight County	HDDBT	0.001	0.020	0.005
Isle of Wight County	HDDBS	0.001	0.023	0.004
Total for Isle of Wight County		*2.674*	*3.361*	*29.209*
James City County	MC	0.017	0.008	0.093
James City County	LDGV	1.127	1.091	15.528
James City County	LDGT4	0.137	0.122	1.920
James City County	LDGT3	0.293	0.222	4.143
James City County	LDGT2	0.551	0.638	8.855
James City County	LDGT1	0.162	0.161	2.631
James City County	LDDV	0.001	0.003	0.002
James City County	LDDT34	0.001	0.005	0.003
James City County	LDDT12	0.001	0.001	0.002
James City County	HDGV8b	0.000	0.000	0.000
James City County	HDGV8a	0.000	0.000	0.000
James City County	HDGV7	0.002	0.009	0.034
James City County	HDGV6	0.004	0.017	0.051
James City County	HDGV5	0.002	0.008	0.024
James City County	HDGV4	0.001	0.004	0.018
James City County	HDGV3	0.002	0.007	0.032
James City County	HDGV2b	0.030	0.165	0.410
James City County	HDGB	0.002	0.004	0.032
James City County	HDDV8b	0.025	1.001	0.160
James City County	HDDV8a	0.006	0.245	0.034
James City County	HDDV7	0.005	0.131	0.018
James City County	HDDV6	0.003	0.071	0.010
James City County	HDDV5	0.000	0.009	0.001
James City County	HDDV4	0.001	0.019	0.003
James City County	HDDV3	0.001	0.019	0.003
James City County	HDDV2b	0.002	0.053	0.010
James City County	HDDBT	0.001	0.023	0.004
James City County	HDDBS	0.001	0.026	0.004
Total For James City County		*2.378*	*4.061*	*34.027*
Newport News City	MC	0.052	0.023	0.303
Newport News City	LDGV	3.872	3.346	44.058
Newport News City	LDGT4	0.477	0.368	5.891
Newport News City	LDGT3	1.022	0.676	12.721
Newport News City	LDGT2	1.937	1.914	25.973
Newport News City	LDGT1	0.571	0.486	7.695
Newport News City	LDDV	0.004	0.008	0.009
Newport News City	LDDT34	0.005	0.013	0.010

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Newport News City	LDDT12	0.003	0.004	0.006
Newport News City	HDGV8b	0.000	0.000	0.000
Newport News City	HDGV8a	0.000	0.000	0.000
Newport News City	HDGV7	0.005	0.018	0.068
Newport News City	HDGV6	0.008	0.035	0.107
Newport News City	HDGV5	0.004	0.017	0.050
Newport News City	HDGV4	0.003	0.007	0.037
Newport News City	HDGV3	0.004	0.014	0.064
Newport News City	HDGV2b	0.070	0.353	0.877
Newport News City	HDGB	0.004	0.008	0.064
Newport News City	HDDV8b	0.061	2.075	0.380
Newport News City	HDDV8a	0.014	0.508	0.082
Newport News City	HDDV7	0.012	0.275	0.044
Newport News City	HDDV6	0.007	0.150	0.024
Newport News City	HDDV5	0.001	0.019	0.004
Newport News City	HDDV4	0.002	0.040	0.008
New port News City	HDDV3	0.002	0.039	0.008
Newport News City	HDDV2b	0.005	0.113	0.023
Newport News City	HDDBT	0.001	0.047	0.010
Newport News City	HDDBS	0.003	0.057	0.009
Total for Newport News City		*8.150*	*10.615*	*98.523*
Norfolk City	MC	0.056	0.028	0.314
Norfolk City	LDGV	5.057	4.552	62.189
Norfolk City	LDGT4	0.597	0.490	7.814
Norfolk City	LDGT3	1.281	0.903	16.879
Norfolk City	LDGT2	2.480	2.597	35.892
Norfolk City	LDGT1	0.731	0.659	10.622
Norfolk City	LDDV	0.005	0.012	0.012
Norfolk City	LDDT34	0.006	0.018	0.012
Norfolk City	LDDT12	0.004	0.006	0.008
Norfolk City	HDGV8b	0.000	0.000	0.000
Norfolk City	HDGV8a	0.000	0.000	0.000
Norfolk City	HDGV7	0.006	0.026	0.090
Norfolk City	HDGV6	0.011	0.052	0.142
Norfolk City	HDGV5	0.005	0.025	0.066
Norfolk City	HDGV4	0.004	0.011	0.049
Norfolk City	HDGV3	0.005	0.020	0.084
Norfolk City	HDGV2b	0.091	0.513	1.158
Norfolk City	HDGB	0.005	0.011	0.083
Norfolk City	HDDV8b	0.079	3.143	0.492
Norfolk City	HDDV8a	0.019	0.768	0.106
Norfolk City	HDDV7	0.016	0.402	0.057
Norfolk City	HDDV6	0.008	0.219	0.031
Norfolk City	HDDV5	0.001	0.027	0.005
Norfolk City	HDDV4	0.002	0.058	0.010
Norfolk City	HDDV3	0.002	0.057	0.011
Norfolk City	HDDV2b	0.007	0.164	0.030
Norfolk City	HDDBT	0.002	0.067	0.013
Norfolk City	HDDBS	0.003	0.082	0.012
Total for Norfolk City		*10.485*	*14.907*	*136.179*
Poquoson City	MC	0.002	0.001	0.013

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Poquoson City	LDGV	0.151	0.105	1.276
Poquoson City	LDGT4	0.017	0.011	0.181
Poquoson City	LDGT3	0.037	0.020	0.391
Poquoson City	LDGT2	0.068	0.054	0.706
Poquoson City	LDGT1	0.020	0.014	0.207
Poquoson City	LDDV	0.000	0.000	0.000
Poquoson City	LDDT34	0.000	0.000	0.000
Poquoson City	LDDT12	0.000	0.000	0.000
Poquoson City	HDGV8b	0.000	0.000	0.000
Poquoson City	HDGV8a	0.000	0.000	0.000
Poquoson City	HDGV7	0.000	0.000	0.002
Poquoson City	HDGV6	0.000	0.001	0.004
Poquoson City	HDGV5	0.000	0.000	0.002
Poquoson City	HDGV4	0.000	0.000	0.001
Poquoson City	HDGV3	0.000	0.000	0.002
Poquoson City	HDGV2b	0.002	0.007	0.027
Poquoson City	HDGB	0.000	0.000	0.002
Poquoson City	HDDV8b	0.002	0.034	0.011
Poquoson City	HDDV8a	0.000	0.008	0.002
Poquoson City	HDDV7	0.000	0.005	0.001
Poquoson City	HDDV6	0.000	0.003	0.001
Poquoson City	HDDV5	0.000	0.000	0.000
Poquoson City	HDDV4	0.000	0.001	0.000
Poquoson City	HDDV3	0.000	0.001	0.000
Poquoson City	HDDV2b	0.000	0.002	0.001
Poquoson City	HDDBT	0.000	0.001	0.000
Poquoson City	HDDBS	0.000	0.001	0.000
Total for Poquoson City		*0.302*	*0.269*	*2.831*
Portsmouth City	MC	0.020	0.009	0.109
Portsmouth City	LDGV	1.749	1.451	18.843
Portsmouth City	LDGT4	0.220	0.153	2.650
Portsmouth City	LDGT3	0.474	0.288	5.733
Portsmouth City	LDGT2	0.853	0.789	10.913
Portsmouth City	LDGT1	0.252	0.202	3.222
Portsmouth City	LDDV	0.002	0.004	0.004
Portsmouth City	LDDT34	0.002	0.005	0.004
Portsmouth City	LDDT12	0.002	0.002	0.003
Portsmouth City	HDGV8b	0.000	0.000	0.000
Portsmouth City	HDGV8a	0.000	0.000	0.000
Portsmouth City	HDGV7	0.002	0.007	0.029
Portsmouth City	HDGV6	0.004	0.014	0.045
Portsmouth City	HDGV5	0.002	0.007	0.020
Portsmouth City	HDGV4	0.001	0.003	0.016
Portsmouth City	HDGV3	0.002	0.005	0.027
Portsmouth City	HDGV2b	0.029	0.134	0.347
Portsmouth City	HDGB	0.002	0.003	0.026
Portsmouth City	HDDV8b	0.024	0.765	0.143
Portsmouth City	HDDV8a	0.006	0.187	0.031
Portsmouth City	HDDV7	0.005	0.099	0.016
Portsmouth City	HDDV6	0.002	0.054	0.009
Portsmouth City	HDDV5	0.000	0.007	0.001

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Portsmouth City	HDDV4	0.001	0.014	0.003
Portsmouth City	HDDV3	0.001	0.014	0.003
Portsmouth City	HDDV2b	0.002	0.041	0.008
Portsmouth City	HDDBT	0.000	0.017	0.003
Portsmouth City	HDDBS	0.001	0.020	0.003
Total for Portsmouth City		*3.656*	*4.294*	*42.213*
Suffolk City	MC	0.022	0.011	0.122
Suffolk City	LDGV	2.088	1.870	26.170
Suffolk City	LDGT4	0.270	0.204	3.575
Suffolk City	LDGT3	0.581	0.380	7.728
Suffolk City	LDGT2	0.985	1.029	14.677
Suffolk City	LDGT1	0.291	0.262	4.352
Suffolk City	LDDV	0.002	0.005	0.005
Suffolk City	LDDT34	0.002	0.007	0.004
Suffolk City	LDDT12	0.002	0.003	0.003
Suffolk City	HDGV8b	0.000	0.000	0.000
Suffolk City	HDGV8a	0.000	0.000	0.000
Suffolk City	HDGV7	0.004	0.014	0.055
Suffolk City	HDGV6	0.006	0.028	0.082
Suffolk City	HDGV5	0.003	0.013	0.037
Suffolk City	HDGV4	0.002	0.006	0.029
Suffolk City	HDGV3	0.003	0.011	0.052
Suffolk City	HDGV2b	0.049	0.276	0.653
Suffolk City	HDGB	0.003	0.006	0.053
Suffolk City	HDDV8b	0.041	1.684	0.254
Suffolk City	HDDV8a	0.010	0.411	0.055
Suffolk City	HDDV7	0.008	0.215	0.029
Suffolk City	HDDV6	0.004	0.117	0.016
Suffolk City	HDDV5	0.001	0.014	0.002
Suffolk City	HDDV4	0.001	0.031	0.005
Suffolk City	HDDV3	0.001	0.030	0.005
Suffolk City	HDDV2b	0.003	0.087	0.015
Suffolk City	HDDBT	0.001	0.036	0.007
Suffolk City	HDDBS	0.002	0.043	0.006
Total for Suffolk City		*4.387*	*6.791*	*57.990*
Virginia Beach City	MC	0.083	0.041	0.456
Virginia Beach City	LDGV	6.074	5.558	72.399
Virginia Beach City	LDGT4	0.566	0.572	7.537
Virginia Beach City	LDGT3	1.203	1.008	16.226
Virginia Beach City	LDGT2	2.690	3.100	39.378
Virginia Beach City	LDGT1	0.788	0.769	11.625
Virginia Beach City	LDDV	0.005	0.011	0.012
Virginia Beach City	LDDT34	0.008	0.021	0.015
Virginia Beach City	LDDT12	0.003	0.004	0.006
Virginia Beach City	HDGV8b	0.000	0.000	0.000
Virginia Beach City	HDGV8a	0.000	0.000	0.000
Virginia Beach City	HDGV7	0.006	0.028	0.084
Virginia Beach City	HDGV6	0.011	0.056	0.137
Virginia Beach City	HDGV5	0.005	0.027	0.064
Virginia Beach City	HDGV4	0.004	0.011	0.045
Virginia Beach City	HDGV3	0.005	0.022	0.076

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Virginia Beach City	HDGV2b	0.097	0.572	1.156
Virginia Beach City	HDGB	0.005	0.011	0.075
Virginia Beach City	HDDV8b	0.092	3.189	0.534
Virginia Beach City	HDDV8a	0.022	0.780	0.117
Virginia Beach City	HDDV7	0.019	0.420	0.064
Virginia Beach City	HDDV6	0.010	0.229	0.035
Virginia Beach City	HDDV5	0.001	0.029	0.005
Virginia Beach City	HDDV4	0.003	0.061	0.012
Virginia Beach City	HDDV3	0.003	0.060	0.012
Virginia Beach City	HDDV2b	0.008	0.174	0.034
Virginia Beach City	HDDBT	0.002	0.072	0.015
Virginia Beach City	HDDBS	0.004	0.089	0.014
Total for Virginia Beach City		*11.719*	*16.914*	*150.134*
Williamsburg City	MC	0.003	0.001	0.017
Williamsburg City	LDGV	0.201	0.178	2.174
Williamsburg City	LDGT4	0.020	0.019	0.246
Williamsburg City	LDGT3	0.043	0.033	0.529
Williamsburg City	LDGT2	0.096	0.101	1.249
Williamsburg City	LDGT1	0.028	0.025	0.368
Williamsburg City	LDDV	0.000	0.000	0.000
Williamsburg City	LDDT34	0.000	0.001	0.001
Williamsburg City	LDDT12	0.000	0.000	0.000
Williamsburg City	HDGV8b	0.000	0.000	0.000
Williamsburg City	HDGV8a	0.000	0.000	0.000
Williamsburg City	HDGV7	0.000	0.001	0.003
Williamsburg City	HDGV6	0.000	0.001	0.004
Williamsburg City	HDGV5	0.000	0.001	0.002
Williamsburg City	HDGV4	0.000	0.000	0.001
Williamsburg City	HDGV3	0.000	0.001	0.002
Williamsburg City	HDGV2b	0.003	0.015	0.036
Williamsburg City	HDGB	0.000	0.000	0.002
Williamsburg City	HDDV8b	0.003	0.075	0.017
Williamsburg City	HDDV8a	0.001	0.018	0.004
Williamsburg City	HDDV7	0.001	0.011	0.002
Williamsburg City	HDDV6	0.000	0.006	0.001
Williamsburg City	HDDV5	0.000	0.001	0.000
Williamsburg City	HDDV4	0.000	0.002	0.000
Williamsburg City	HDDV3	0.000	0.002	0.000
Williamsburg City	HDDV2b	0.000	0.004	0.001
Williamsburg City	HDDBT	0.000	0.002	0.000
Williamsburg City	HDDBS	0.000	0.002	0.000
Total for Williamsburg City		0.402	0.500	*4.622*
York County	MC	0.020	0.010	0.110
York County	LDGV	1.529	1.402	19.659
York County	LDGT4	0.175	0.152	2.381
York County	LDGT3	0.374	0.276	5.140
York County	LDGT2	0.717	0.799	11.007
York County	LDGT1	0.211	0.202	3.263
York County	LDDV	0.001	0.003	0.003
York County	LDDT34	0.002	0.006	0.004
York County	LDDT12	0.001	0.002	0.002

Table 4.2-7a				
Hampton Roads Area 2002 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
York County	HDGV8b	0.000	0.000	0.000
York County	HDGV8a	0.000	0.000	0.000
York County	HDGV7	0.002	0.009	0.032
York County	HDGV6	0.004	0.017	0.049
York County	HDGV5	0.002	0.008	0.022
York County	HDGV4	0.001	0.004	0.017
York County	HDGV3	0.002	0.007	0.030
York County	HDGV2b	0.030	0.163	0.388
York County	HDGB	0.002	0.004	0.030
York County	HDDV8b	0.025	0.973	0.157
York County	HDDV8a	0.006	0.238	0.034
York County	HDDV7	0.005	0.129	0.018
York County	HDDV6	0.003	0.070	0.010
York County	HDDV5	0.000	0.009	0.001
York County	HDDV4	0.001	0.019	0.003
York County	HDDV3	0.001	0.018	0.003
York County	HDDV2b	0.002	0.053	0.009
York County	HDDBT	0.001	0.022	0.004
York County	HDDBS	0.001	0.026	0.004
Total for York County		*3.115*	*4.617*	*42.382*
Grand Total for 2002		*67.293*	*93.844*	*848.362*

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Chesapeake City	MC	0.067	0.032	0.406
Chesapeake City	LDGV	4.273	4.109	53.751
Chesapeake City	LDGT4	0.281	0.446	4.014
Chesapeake City	LDGT3	0.580	0.732	8.571
Chesapeake City	LDGT2	1.966	2.432	28.954
Chesapeake City	LDGT1	0.572	0.589	8.456
Chesapeake City	LDDV	0.006	0.014	0.015
Chesapeake City	LDDT34	0.007	0.018	0.012
Chesapeake City	LDDT12	0.003	0.003	0.005
Chesapeake City	HDGV8b	0.000	0.000	0.000
Chesapeake City	HDGV8a	0.000	0.000	0.000
Chesapeake City	HDGV7	0.004	0.021	0.048
Chesapeake City	HDGV6	0.007	0.044	0.092
Chesapeake City	HDGV5	0.004	0.021	0.045
Chesapeake City	HDGV4	0.002	0.007	0.024
Chesapeake City	HDGV3	0.003	0.018	0.054
Chesapeake City	HDGV2b	0.073	0.488	0.954
Chesapeake City	HDGB	0.003	0.007	0.041
Chesapeake City	HDDV8b	0.068	2.392	0.425
Chesapeake City	HDDV8a	0.016	0.579	0.097
Chesapeake City	HDDV7	0.014	0.369	0.056
Chesapeake City	HDDV6	0.008	0.203	0.031
Chesapeake City	HDDV5	0.001	0.029	0.006
Chesapeake City	HDDV4	0.002	0.058	0.011
Chesapeake City	HDDV3	0.002	0.052	0.011
Chesapeake City	HDDV2b	0.006	0.152	0.030
Chesapeake City	HDDBT	0.001	0.065	0.012
Chesapeake City	HDDBS	0.004	0.089	0.013
Total for Chesapeake City:		*7.971*	*12.968*	*106.132*
Gloucester County	MC	0.010	0.005	0.056
Gloucester County	LDGV	0.790	0.629	8.776
Gloucester County	LDGT4	0.059	0.068	0.742
Gloucester County	LDGT3	0.124	0.115	1.593
Gloucester County	LDGT2	0.419	0.389	5.301
Gloucester County	LDGT1	0.123	0.097	1.554
Gloucester County	LDDV	0.001	0.003	0.003
Gloucester County	LDDT34	0.001	0.003	0.002
Gloucester County	LDDT12	0.001	0.001	0.001
Gloucester County	HDGV8b	0.000	0.000	0.000
Gloucester County	HDGV8a	0.000	0.000	0.000
Gloucester County	HDGV7	0.002	0.007	0.024
Gloucester County	HDGV6	0.004	0.014	0.043
Gloucester County	HDGV5	0.002	0.007	0.021
Gloucester County	HDGV4	0.001	0.003	0.015
Gloucester County	HDGV3	0.002	0.006	0.030
Gloucester County	HDGV2b	0.033	0.143	0.406
Gloucester County	HDGB	0.001	0.003	0.025
Gloucester County	HDDV8b	0.019	0.717	0.133
Gloucester County	HDDV8a	0.005	0.172	0.029
Gloucester County	HDDV7	0.004	0.109	0.016

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Gloucester County	HDDV6	0.002	0.059	0.009
Gloucester County	HDDV5	0.000	0.008	0.001
Gloucester County	HDDV4	0.001	0.017	0.003
Gloucester County	HDDV3	0.001	0.015	0.003
Gloucester County	HDDV2b	0.002	0.045	0.008
Gloucester County	HDDBT	0.000	0.020	0.004
Total for Gloucester County		*1.606*	*2.678*	*18.801*
Hampton City	MC	0.044	0.020	0.269
Hampton City	LDGV	3.073	2.649	33.629
Hampton City	LDGT4	0.221	0.277	2.699
Hampton City	LDGT3	0.461	0.466	5.780
Hampton City	LDGT2	1.561	1.566	19.431
Hampton City	LDGT1	0.457	0.385	5.678
Hampton City	LDDV	0.004	0.010	0.011
Hampton City	LDDT34	0.004	0.011	0.008
Hampton City	LDDT12	0.003	0.003	0.005
Hampton City	HDGV8b	0.000	0.000	0.000
Hampton City	HDGV8a	0.000	0.000	0.000
Hampton City	HDGV7	0.003	0.014	0.041
Hampton City	HDGV6	0.006	0.028	0.075
Hampton City	HDGV5	0.003	0.013	0.037
Hampton City	HDGV4	0.002	0.005	0.025
Hampton City	HDGV3	0.003	0.012	0.053
Hampton City	HDGV2b	0.061	0.299	0.725
Hampton City	HDGB	0.003	0.006	0.045
Hampton City	HDDV8b	0.046	1.445	0.295
Hampton City	HDDV8a	0.011	0.348	0.065
Hampton City	HDDV7	0.009	0.217	0.037
Hampton City	HDDV6	0.005	0.119	0.020
Hampton City	HDDV5	0.001	0.016	0.003
Hampton City	HDDV4	0.001	0.034	0.007
Hampton City	HDDV3	0.001	0.030	0.007
Hampton City	HDDV2b	0.004	0.089	0.019
Hampton City	HDDBT	0.001	0.039	0.008
Hampton City	HDDBS	0.002	0.049	0.008
Total for Hampton City		*5.994*	*8.151*	*68.980*
Isle of Wight County	MC	0.014	0.006	0.070
Isle of Wight County	LDGV	0.952	0.729	9.722
Isle of Wight County	LDGT4	0.070	0.077	0.828
Isle of Wight County	LDGT3	0.148	0.131	1.778
Isle of Wight County	LDGT2	0.493	0.438	5.851
Isle of Wight County	LDGT1	0.145	0.108	1.710
Isle of Wight County	LDDV	0.001	0.003	0.003
Isle of Wight County	LDDT34	0.001	0.002	0.002
Isle of Wight County	LDDT12	0.001	0.001	0.002
Isle of Wight County	HDGV8b	0.000	0.000	0.000
Isle of Wight County	HDGV8a	0.000	0.000	0.000
Isle of Wight County	HDGV7	0.001	0.005	0.016
Isle of Wight County	HDGV6	0.003	0.010	0.028
Isle of Wight County	HDGV5	0.001	0.005	0.014
Isle of Wight County	HDGV4	0.001	0.002	0.010

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Isle of Wight County	HDGV3	0.001	0.005	0.021
Isle of Wight County	HDGV2b	0.027	0.109	0.276
Isle of Wight County	HDGB	0.001	0.002	0.017
Isle of Wight County	HDDV8b	0.017	0.443	0.097
Isle of Wight County	HDDV8a	0.004	0.106	0.021
Isle of Wight County	HDDV7	0.003	0.067	0.012
Isle of Wight County	HDDV6	0.002	0.037	0.006
Isle of Wight County	HDDV5	0.000	0.005	0.001
Isle of Wight County	HDDV4	0.001	0.010	0.002
Isle of Wight County	HDDV3	0.000	0.009	0.002
Isle of Wight County	HDDV2b	0.001	0.028	0.006
Isle of Wight County	HDDBT	0.000	0.012	0.003
Isle of Wight County	HDDBS	0.001	0.015	0.003
Total for Isle of Wight County		*1.892*	*2.365*	*20.501*
James City County	MC	0.018	0.008	0.093
James City County	LDGV	0.887	0.938	12.882
James City County	LDGT4	0.065	0.106	0.992
James City County	LDGT3	0.134	0.174	2.119
James City County	LDGT2	0.447	0.578	7.140
James City County	LDGT1	0.130	0.141	2.092
James City County	LDDV	0.001	0.004	0.003
James City County	LDDT34	0.001	0.004	0.002
James City County	LDDT12	0.001	0.001	0.001
James City County	HDGV8b	0.000	0.000	0.000
James City County	HDGV8a	0.000	0.000	0.000
James City County	HDGV7	0.001	0.006	0.016
James City County	HDGV6	0.002	0.013	0.030
James City County	HDGV5	0.001	0.006	0.015
James City County	HDGV4	0.001	0.002	0.009
James City County	HDGV3	0.001	0.006	0.020
James City County	HDGV2b	0.022	0.145	0.299
James City County	HDGB	0.001	0.003	0.017
James City County	HDDV8b	0.019	0.697	0.120
James City County	HDDV8a	0.004	0.168	0.027
James City County	HDDV7	0.004	0.108	0.015
James City County	HDDV6	0.002	0.059	0.008
James City County	HDDV5	0.000	0.008	0.001
James City County	HDDV4	0.001	0.017	0.003
James City County	HDDV3	0.001	0.015	0.003
James City County	HDDV2b	0.002	0.045	0.008
James City County	HDDBT	0.000	0.020	0.004
James City County	HDDBS	0.001	0.025	0.003
Total For James City County		*1.747*	*3.298*	*25.925*
Newport News City	MC	0.049	0.023	0.293
Newport News City	LDGV	2.948	2.646	33.532
Newport News City	LDGT4	0.210	0.286	2.662
Newport News City	LDGT3	0.436	0.474	5.689
Newport News City	LDGT2	1.484	1.605	19.353
Newport News City	LDGT1	0.433	0.391	5.641
Newport News City	LDDV	0.004	0.009	0.010
Newport News City	LDDT34	0.004	0.011	0.008

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Newport News City	LDDT12	0.002	0.003	0.004
Newport News City	HDGV8b	0.000	0.000	0.000
Newport News City	HDGV8a	0.000	0.000	0.000
Newport News City	HDGV7	0.003	0.013	0.037
Newport News City	HDGV6	0.006	0.028	0.069
Newport News City	HDGV5	0.003	0.013	0.035
Newport News City	HDGV4	0.002	0.005	0.021
Newport News City	HDGV3	0.003	0.012	0.045
Newport News City	HDGV2b	0.057	0.306	0.702
Newport News City	HDGB	0.002	0.005	0.038
Newport News City	HDDV8b	0.048	1.426	0.300
Newport News City	HDDV8a	0.011	0.344	0.067
Newport News City	HDDV7	0.010	0.223	0.039
Newport News City	HDDV6	0.005	0.123	0.021
Newport News City	HDDV5	0.001	0.017	0.004
Newport News City	HDDV4	0.002	0.035	0.008
Newport News City	HDDV3	0.001	0.032	0.007
Newport News City	HDDV2b	0.004	0.093	0.021
Newport News City	HDDBT	0.001	0.040	0.008
Newport News City	HDDBS	0.002	0.053	0.009
Total for Newport News City		*5.732*	*8.217*	*68.623*
Norfolk City	MC	0.055	0.028	0.320
Norfolk City	LDGV	3.863	3.682	48.313
Norfolk City	LDGT4	0.281	0.414	3.895
Norfolk City	LDGT3	0.584	0.688	8.332
Norfolk City	LDGT2	1.981	2.311	28.143
Norfolk City	LDGT1	0.578	0.564	8.225
Norfolk City	LDDV	0.005	0.012	0.012
Norfolk City	LDDT34	0.006	0.016	0.010
Norfolk City	LDDT12	0.003	0.004	0.005
Norfolk City	HDGV8b	0.000	0.000	0.000
Norfolk City	HDGV8a	0.000	0.000	0.000
Norfolk City	HDGV7	0.004	0.020	0.049
Norfolk City	HDGV6	0.008	0.042	0.092
Norfolk City	HDGV5	0.004	0.020	0.046
Norfolk City	HDGV4	0.002	0.007	0.027
Norfolk City	HDGV3	0.004	0.018	0.057
Norfolk City	HDGV2b	0.075	0.461	0.935
Norfolk City	HDGB	0.003	0.008	0.047
Norfolk City	HDDV8b	0.064	2.214	0.406
Norfolk City	HDDV8a	0.015	0.533	0.091
Norfolk City	HDDV7	0.013	0.337	0.052
Norfolk City	HDDV6	0.007	0.186	0.029
Norfolk City	HDDV5	0.001	0.026	0.005
Norfolk City	HDDV4	0.002	0.053	0.010
Norfolk City	HDDV3	0.002	0.048	0.010
Norfolk City	HDDV2b	0.006	0.140	0.028
Norfolk City	HDDBT	0.001	0.059	0.011
Norfolk City	HDDBS	0.003	0.080	0.012
Total for Norfolk City		*7.570*	*11.968*	*99.162*
Poquoson City	MC	0.002	0.001	0.012

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Poquoson City	LDGV	0.097	0.074	0.848
Poquoson City	LDGT4	0.007	0.008	0.071
Poquoson City	LDGT3	0.015	0.013	0.152
Poquoson City	LDGT2	0.049	0.044	0.504
Poquoson City	LDGT1	0.014	0.011	0.146
Poquoson City	LDDV	0.000	0.000	0.000
Poquoson City	LDDT34	0.000	0.000	0.000
Poquoson City	LDDT12	0.000	0.000	0.000
Poquoson City	HDGV8b	0.000	0.000	0.000
Poquoson City	HDGV8a	0.000	0.000	0.000
Poquoson City	HDGV7	0.000	0.000	0.001
Poquoson City	HDGV6	0.000	0.001	0.002
Poquoson City	HDGV5	0.000	0.000	0.001
Poquoson City	HDGV4	0.000	0.000	0.001
Poquoson City	HDGV3	0.000	0.000	0.001
Poquoson City	HDGV2b	0.002	0.006	0.018
Poquoson City	HDGB	0.000	0.000	0.001
Poquoson City	HDDV8b	0.001	0.023	0.008
Poquoson City	HDDV8a	0.000	0.006	0.002
Poquoson City	HDDV7	0.000	0.004	0.001
Poquoson City	HDDV6	0.000	0.002	0.001
Poquoson City	HDDV5	0.000	0.000	0.000
Poquoson City	HDDV4	0.000	0.001	0.000
Poquoson City	HDDV3	0.000	0.001	0.000
Poquoson City	HDDV2b	0.000	0.002	0.001
Poquoson City	HDDBT	0.000	0.001	0.000
Poquoson City	HDDBS	0.000	0.001	0.000
Total for Poquoson City		*0.190*	*0.198*	*1.772*
Portsmouth City	MC	0.019	0.009	0.109
Portsmouth City	LDGV	1.369	1.192	14.784
Portsmouth City	LDGT4	0.097	0.125	1.187
Portsmouth City	LDGT3	0.202	0.209	2.543
Portsmouth City	LDGT2	0.674	0.700	8.444
Portsmouth City	LDGT1	0.197	0.171	2.459
Portsmouth City	LDDV	0.002	0.004	0.004
Portsmouth City	LDDT34	0.002	0.004	0.003
Portsmouth City	LDDT12	0.001	0.001	0.002
Portsmouth City	HDGV8b	0.000	0.000	0.000
Portsmouth City	HDGV8a	0.000	0.000	0.000
Portsmouth City	HDGV7	0.001	0.005	0.015
Portsmouth City	HDGV6	0.002	0.011	0.027
Portsmouth City	HDGV5	0.001	0.005	0.013
Portsmouth City	HDGV4	0.001	0.002	0.008
Portsmouth City	HDGV3	0.001	0.005	0.018
Portsmouth City	HDGV2b	0.024	0.121	0.267
Portsmouth City	HDGB	0.001	0.002	0.015
Portsmouth City	HDDV8b	0.019	0.557	0.114
Portsmouth City	HDDV8a	0.004	0.134	0.025
Portsmouth City	HDDV7	0.004	0.084	0.015
Portsmouth City	HDDV6	0.002	0.046	0.008
Portsmouth City	HDDV5	0.000	0.006	0.001

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Portsmouth City	HDDV4	0.001	0.013	0.003
Portsmouth City	HDDV3	0.001	0.012	0.003
Portsmouth City	HDDV2b	0.002	0.035	0.007
Portsmouth City	HDDBT	0.000	0.015	0.003
Portsmouth City	HDDBS	0.001	0.020	0.003
Total for Portsmouth City		*2.629*	*3.489*	*30.083*
Suffolk City	MC	0.022	0.011	0.124
Suffolk City	LDGV	1.687	1.607	21.514
Suffolk City	LDGT4	0.117	0.169	1.645
Suffolk City	LDGT3	0.243	0.282	3.519
Suffolk City	LDGT2	0.809	0.938	11.755
Suffolk City	LDGT1	0.236	0.230	3.442
Suffolk City	LDDV	0.002	0.006	0.006
Suffolk City	LDDT34	0.002	0.007	0.004
Suffolk City	LDDT12	0.002	0.002	0.003
Suffolk City	HDGV8b	0.000	0.000	0.000
Suffolk City	HDGV8a	0.000	0.000	0.000
Suffolk City	HDGV7	0.002	0.012	0.029
Suffolk City	HDGV6	0.004	0.024	0.054
Suffolk City	HDGV5	0.002	0.011	0.027
Suffolk City	HDGV4	0.001	0.004	0.017
Suffolk City	HDGV3	0.002	0.011	0.037
Suffolk City	HDGV2b	0.042	0.261	0.532
Suffolk City	HDGB	0.002	0.005	0.031
Suffolk City	HDDV8b	0.034	1.231	0.215
Suffolk City	HDDV8a	0.008	0.296	0.048
Suffolk City	HDDV7	0.007	0.187	0.027
Suffolk City	HDDV6	0.004	0.103	0.015
Suffolk City	HDDV5	0.001	0.014	0.003
Suffolk City	HDDV4	0.001	0.029	0.005
Suffolk City	HDDV3	0.001	0.026	0.005
Suffolk City	HDDV2b	0.003	0.077	0.014
Suffolk City	HDDBT	0.001	0.033	0.006
Suffolk City	HDDBS	0.002	0.043	0.006
Total for Suffolk City		*3.237*	*5.619*	*43.082*
Virginia Beach City	MC	0.083	0.041	0.456
Virginia Beach City	MC	0.084	0.043	0.471
Virginia Beach City	LDGV	4.882	4.725	59.661
Virginia Beach City	LDGT4	0.316	0.525	4.451
Virginia Beach City	LDGT3	0.648	0.851	9.488
Virginia Beach City	LDGT2	2.201	2.817	32.094
Virginia Beach City	LDGT1	0.638	0.675	9.335
Virginia Beach City	LDDV	0.006	0.014	0.016
Virginia Beach City	LDDT34	0.008	0.019	0.013
Virginia Beach City	LDDT12	0.002	0.003	0.004
Virginia Beach City	HDGV8b	0.000	0.000	0.000
Virginia Beach City	HDGV8a	0.000	0.000	0.000
Virginia Beach City	HDGV7	0.004	0.022	0.048
Virginia Beach City	HDGV6	0.008	0.047	0.093
Virginia Beach City	HDGV5	0.004	0.022	0.046
Virginia Beach City	HDGV4	0.002	0.008	0.024

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Virginia Beach City	HDGV3	0.004	0.020	0.054
Virginia Beach City	HDGV2b	0.080	0.532	0.969
Virginia Beach City	HDGB	0.003	0.007	0.041
Virginia Beach City	HDDV8b	0.078	2.297	0.450
Virginia Beach City	HDDV8a	0.019	0.556	0.103
Virginia Beach City	HDDV7	0.017	0.362	0.060
Virginia Beach City	HDDV6	0.009	0.200	0.033
Virginia Beach City	HDDV5	0.001	0.029	0.006
Virginia Beach City	HDDV4	0.003	0.058	0.012
Virginia Beach City	HDDV3	0.002	0.052	0.011
Virginia Beach City	HDDV2b	0.007	0.152	0.032
Virginia Beach City	HDDBT	0.001	0.064	0.013
Total for Virginia Beach City		*9.030*	*14.188*	*117.543*
Williamsburg City	MC	0.003	0.001	0.017
Williamsburg City	LDGV	0.149	0.142	1.693
Williamsburg City	LDGT4	0.011	0.016	0.136
Williamsburg City	LDGT3	0.022	0.026	0.290
Williamsburg City	LDGT2	0.074	0.086	0.963
Williamsburg City	LDGT1	0.021	0.021	0.280
Williamsburg City	LDDV	0.000	0.000	0.000
Williamsburg City	LDDT34	0.000	0.001	0.000
Williamsburg City	LDDT12	0.000	0.000	0.000
Williamsburg City	HDGV8b	0.000	0.000	0.000
Williamsburg City	HDGV8a	0.000	0.000	0.000
Williamsburg City	HDGV7	0.000	0.001	0.001
Williamsburg City	HDGV6	0.000	0.001	0.003
Williamsburg City	HDGV5	0.000	0.001	0.001
Williamsburg City	HDGV4	0.000	0.000	0.001
Williamsburg City	HDGV3	0.000	0.000	0.002
Williamsburg City	HDGV2b	0.002	0.013	0.028
Williamsburg City	HDGB	0.000	0.000	0.001
Williamsburg City	HDDV8b	0.002	0.051	0.013
Williamsburg City	HDDV8a	0.001	0.012	0.003
Williamsburg City	HDDV7	0.001	0.009	0.002
Williamsburg City	HDDV6	0.000	0.005	0.001
Williamsburg City	HDDV5	0.000	0.001	0.000
Williamsburg City	HDDV4	0.000	0.001	0.000
Williamsburg City	HDDV3	0.000	0.001	0.000
Williamsburg City	HDDV2b	0.000	0.004	0.001
Williamsburg City	HDDBT	0.000	0.001	0.000
Williamsburg City	HDDBS	0.000	0.002	0.000
Total for Williamsburg City		*0.288*	*0.398*	*3.437*
York County	MC	0.021	0.011	0.119
York County	LDGV	1.272	1.262	17.011
York County	LDGT4	0.089	0.139	1.295
York County	LDGT3	0.184	0.229	2.768
York County	LDGT2	0.621	0.763	9.353
York County	LDGT1	0.181	0.186	2.736
York County	LDDV	0.002	0.005	0.005
York County	LDDT34	0.002	0.006	0.003
York County	LDDT12	0.001	0.001	0.002

Table 4.2-7b				
Hampton Roads Area 2005 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
York County	HDGV8b	0.000	0.000	0.000
York County	HDGV8a	0.000	0.000	0.000
York County	HDGV7	0.001	0.007	0.018
York County	HDGV6	0.003	0.015	0.034
York County	HDGV5	0.001	0.007	0.017
York County	HDGV4	0.001	0.003	0.011
York County	HDGV3	0.001	0.007	0.023
York County	HDGV2b	0.026	0.163	0.344
York County	HDGB	0.001	0.003	0.020
York County	HDDV8b	0.021	0.780	0.138
York County	HDDV8a	0.005	0.188	0.031
York County	HDDV7	0.004	0.122	0.018
York County	HDDV6	0.002	0.067	0.010
York County	HDDV5	0.000	0.009	0.002
York County	HDDV4	0.001	0.019	0.003
York County	HDDV3	0.001	0.017	0.003
York County	HDDV2b	0.002	0.051	0.009
York County	HDDBT	0.000	0.022	0.004
York County	HDDBS	0.001	0.029	0.004
Total for York County		*2.445*	*4.111*	*33.983*
Grand Total for 2005		*50.331*	*77.649*	*638.023*

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Chesapeake City	MC	0.075	0.037	0.466
Chesapeake City	LDGV	3.096	2.607	38.576
Chesapeake City	LDGT4	0.211	0.289	2.854
Chesapeake City	LDGT3	0.431	0.470	6.068
Chesapeake City	LDGT2	1.449	1.580	20.707
Chesapeake City	LDGT1	0.411	0.356	5.659
Chesapeake City	LDDV	0.001	0.002	0.004
Chesapeake City	LDDT34	0.004	0.008	0.008
Chesapeake City	LDDT12	0.000	0.000	0.000
Chesapeake City	HDGV8b	0.000	0.000	0.000
Chesapeake City	HDGV8a	0.000	0.000	0.000
Chesapeake City	HDGV7	0.002	0.009	0.033
Chesapeake City	HDGV6	0.005	0.020	0.071
Chesapeake City	HDGV5	0.002	0.010	0.033
Chesapeake City	HDGV4	0.001	0.003	0.009
Chesapeake City	HDGV3	0.002	0.009	0.031
Chesapeake City	HDGV2b	0.053	0.256	0.790
Chesapeake City	HDGB	0.001	0.003	0.006
Chesapeake City	HDDV8b	0.056	1.268	0.235
Chesapeake City	HDDV8a	0.013	0.293	0.052
Chesapeake City	HDDV7	0.011	0.206	0.033
Chesapeake City	HDDV6	0.006	0.114	0.018
Chesapeake City	HDDV5	0.001	0.019	0.004
Chesapeake City	HDDV4	0.002	0.038	0.007
Chesapeake City	HDDV3	0.002	0.029	0.006
Chesapeake City	HDDV2b	0.005	0.091	0.017
Chesapeake City	HDDBT	0.001	0.044	0.007
Chesapeake City	HDDBS	0.003	0.069	0.010
Total for Chesapeake City		*5.843*	*7.831*	*75.706*
Gloucester County	MC	0.011	0.005	0.062
Gloucester County	LDGV	0.576	0.406	6.080
Gloucester County	LDGT4	0.045	0.049	0.509
Gloucester County	LDGT3	0.094	0.082	1.089
Gloucester County	LDGT2	0.309	0.273	3.617
Gloucester County	LDGT1	0.089	0.063	0.995
Gloucester County	LDDV	0.000	0.000	0.001
Gloucester County	LDDT34	0.001	0.001	0.001
Gloucester County	LDDT12	0.000	0.000	0.000
Gloucester County	HDGV8b	0.000	0.000	0.000
Gloucester County	HDGV8a	0.000	0.000	0.000
Gloucester County	HDGV7	0.001	0.003	0.010
Gloucester County	HDGV6	0.002	0.007	0.022
Gloucester County	HDGV5	0.001	0.003	0.010
Gloucester County	HDGV4	0.000	0.001	0.003
Gloucester County	HDGV3	0.001	0.003	0.009
Gloucester County	HDGV2b	0.025	0.082	0.242
Gloucester County	HDGB	0.000	0.001	0.003
Gloucester County	HDDV8b	0.015	0.407	0.068
Gloucester County	HDDV8a	0.003	0.092	0.015
Gloucester County	HDDV7	0.003	0.063	0.009

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Gloucester County	HDDV6	0.002	0.035	0.005
Gloucester County	HDDV5	0.000	0.006	0.001
Gloucester County	HDDV4	0.000	0.012	0.002
Gloucester County	HDDV3	0.000	0.009	0.002
Gloucester County	HDDV2b	0.001	0.028	0.005
Gloucester County	HDDBT	0.000	0.014	0.002
Total for Gloucester County		*1.182*	*1.665*	*12.766*
Hampton City	MC	0.048	0.022	0.303
Hampton City	LDGV	2.253	1.730	24.218
Hampton City	LDGT4	0.168	0.193	1.922
Hampton City	LDGT3	0.347	0.321	4.100
Hampton City	LDGT2	1.156	1.083	13.817
Hampton City	LDGT1	0.332	0.248	3.795
Hampton City	LDDV	0.001	0.001	0.003
Hampton City	LDDT34	0.003	0.005	0.006
Hampton City	LDDT12	0.000	0.000	0.000
Hampton City	HDGV8b	0.000	0.000	0.000
Hampton City	HDGV8a	0.000	0.000	0.000
Hampton City	HDGV7	0.002	0.006	0.020
Hampton City	HDGV6	0.004	0.014	0.044
Hampton City	HDGV5	0.002	0.006	0.020
Hampton City	HDGV4	0.001	0.002	0.006
Hampton City	HDGV3	0.001	0.006	0.019
Hampton City	HDGV2b	0.045	0.168	0.485
Hampton City	HDGB	0.001	0.002	0.005
Hampton City	HDDV8b	0.036	0.808	0.163
Hampton City	HDDV8a	0.009	0.185	0.035
Hampton City	HDDV7	0.007	0.127	0.022
Hampton City	HDDV6	0.004	0.070	0.012
Hampton City	HDDV5	0.001	0.012	0.002
Hampton City	HDDV4	0.001	0.023	0.005
Hampton City	HDDV3	0.001	0.018	0.004
Hampton City	HDDV2b	0.003	0.056	0.011
Hampton City	HDDBT	0.001	0.028	0.005
Hampton City	HDDBS	0.002	0.042	0.007
Total for Hampton City		*4.425*	*5.178*	*49.029*
Isle of Wight County	MC	0.015	0.007	0.079
Isle of Wight County	LDGV	0.701	0.477	6.827
Isle of Wight County	LDGT4	0.054	0.055	0.568
Isle of Wight County	LDGT3	0.113	0.092	1.214
Isle of Wight County	LDGT2	0.367	0.305	4.004
Isle of Wight County	LDGT1	0.106	0.070	1.102
Isle of Wight County	LDDV	0.000	0.000	0.001
Isle of Wight County	LDDT34	0.001	0.001	0.001
Isle of Wight County	LDDT12	0.000	0.000	0.000
Isle of Wight County	HDGV8b	0.000	0.000	0.000
Isle of Wight County	HDGV8a	0.000	0.000	0.000
Isle of Wight County	HDGV7	0.001	0.002	0.007
Isle of Wight County	HDGV6	0.002	0.005	0.015
Isle of Wight County	HDGV5	0.001	0.002	0.007

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Isle of Wight County	HDGV4	0.000	0.001	0.002
Isle of Wight County	HDGV3	0.001	0.002	0.006
Isle of Wight County	HDGV2b	0.020	0.062	0.168
Isle of Wight County	HDGB	0.000	0.001	0.002
Isle of Wight County	HDDV8b	0.013	0.250	0.053
Isle of Wight County	HDDV8a	0.003	0.057	0.011
Isle of Wight County	HDDV7	0.002	0.039	0.007
Isle of Wight County	HDDV6	0.001	0.022	0.004
Isle of Wight County	HDDV5	0.000	0.004	0.001
Isle of Wight County	HDDV4	0.000	0.007	0.002
Isle of Wight County	HDDV3	0.000	0.006	0.001
Isle of Wight County	HDDV2b	0.001	0.017	0.004
Isle of Wight County	HDDBT	0.000	0.008	0.002
Isle of Wight County	HDDBS	0.001	0.013	0.002
Total for Isle of Wight County		*1.405*	*1.504*	*14.089*
James City County	MC	0.019	0.010	0.107
James City County	LDGV	0.652	0.573	8.883
James City County	LDGT4	0.049	0.068	0.694
James City County	LDGT3	0.100	0.111	1.475
James City County	LDGT2	0.336	0.372	5.019
James City County	LDGT1	0.096	0.085	1.375
James City County	LDDV	0.000	0.000	0.001
James City County	LDDT34	0.001	0.002	0.002
James City County	LDDT12	0.000	0.000	0.000
James City County	HDGV8b	0.000	0.000	0.000
James City County	HDGV8a	0.000	0.000	0.000
James City County	HDGV7	0.001	0.003	0.009
James City County	HDGV6	0.002	0.006	0.020
James City County	HDGV5	0.001	0.003	0.009
James City County	HDGV4	0.000	0.001	0.003
James City County	HDGV3	0.000	0.003	0.008
James City County	HDGV2b	0.017	0.075	0.216
James City County	HDGB	0.000	0.001	0.002
James City County	HDDV8b	0.015	0.373	0.063
James City County	HDDV8a	0.004	0.085	0.014
James City County	HDDV7	0.003	0.060	0.009
James City County	HDDV6	0.002	0.033	0.005
James City County	HDDV5	0.000	0.006	0.001
James City County	HDDV4	0.001	0.011	0.002
James City County	HDDV3	0.000	0.009	0.001
James City County	HDDV2b	0.001	0.027	0.004
James City County	HDDBT	0.000	0.014	0.002
James City County	HDDBS	0.001	0.020	0.003
Total for James City County		*1.301*	*1.949*	*17.925*
Newport News City	MC	0.054	0.026	0.332
Newport News City	LDGV	2.139	1.698	24.282
Newport News City	LDGT4	0.159	0.195	1.918
Newport News City	LDGT3	0.327	0.321	4.080
Newport News City	LDGT2	1.093	1.085	13.870
Newport News City	LDGT1	0.312	0.246	3.796
Newport News City	LDDV	0.000	0.001	0.003

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Newport News City	LDDT34	0.003	0.005	0.006
Newport News City	LDDT12	0.000	0.000	0.000
Newport News City	HDGV8b	0.000	0.000	0.000
Newport News City	HDGV8a	0.000	0.000	0.000
Newport News City	HDGV7	0.002	0.006	0.021
Newport News City	HDGV6	0.004	0.013	0.047
Newport News City	HDGV5	0.002	0.006	0.022
Newport News City	HDGV4	0.001	0.002	0.006
Newport News City	HDGV3	0.001	0.006	0.020
Newport News City	HDGV2b	0.041	0.162	0.512
Newport News City	HDGB	0.001	0.002	0.005
Newport News City	HDDV8b	0.038	0.754	0.154
Newport News City	HDDV8a	0.009	0.172	0.033
Newport News City	HDDV7	0.007	0.121	0.021
Newport News City	HDDV6	0.004	0.067	0.012
Newport News City	HDDV5	0.001	0.011	0.002
Newport News City	HDDV4	0.001	0.023	0.005
Newport News City	HDDV3	0.001	0.017	0.004
Newport News City	HDDV2b	0.003	0.055	0.011
Newport News City	HDDBT	0.001	0.026	0.005
Newport News City	HDDBS	0.002	0.042	0.007
Total for Newport News City		*4.206*	*5.062*	*49.171*
Norfolk City	MC	0.059	0.031	0.354
Norfolk City	LDGV	2.734	2.267	33.179
Norfolk City	LDGT4	0.207	0.273	2.672
Norfolk City	LDGT3	0.425	0.448	5.689
Norfolk City	LDGT2	1.415	1.498	19.226
Norfolk City	LDGT1	0.404	0.340	5.264
Norfolk City	LDDV	0.001	0.001	0.003
Norfolk City	LDDT34	0.004	0.007	0.007
Norfolk City	LDDT12	0.000	0.000	0.000
Norfolk City	HDGV8b	0.000	0.000	0.000
Norfolk City	HDGV8a	0.000	0.000	0.000
Norfolk City	HDGV7	0.002	0.009	0.029
Norfolk City	HDGV6	0.005	0.019	0.062
Norfolk City	HDGV5	0.002	0.009	0.029
Norfolk City	HDGV4	0.001	0.003	0.008
Norfolk City	HDGV3	0.002	0.008	0.026
Norfolk City	HDGV2b	0.054	0.235	0.686
Norfolk City	HDGB	0.001	0.003	0.006
Norfolk City	HDDV8b	0.050	1.127	0.207
Norfolk City	HDDV8a	0.012	0.258	0.045
Norfolk City	HDDV7	0.009	0.179	0.029
Norfolk City	HDDV6	0.005	0.099	0.016
Norfolk City	HDDV5	0.001	0.017	0.003
Norfolk City	HDDV4	0.002	0.033	0.006
Norfolk City	HDDV3	0.001	0.025	0.005
Norfolk City	HDDV2b	0.004	0.080	0.015
Norfolk City	HDDBT	0.001	0.037	0.006
Norfolk City	HDDBS	0.003	0.061	0.009
Total for Norfolk City		*5.402*	*7.070*	*67.581*

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Poquoson City	MC	0.002	0.001	0.014
Poquoson City	LDGV	0.071	0.047	0.613
Poquoson City	LDGT4	0.005	0.005	0.050
Poquoson City	LDGT3	0.011	0.009	0.107
Poquoson City	LDGT2	0.036	0.030	0.360
Poquoson City	LDGT1	0.010	0.007	0.098
Poquoson City	LDDV	0.000	0.000	0.000
Poquoson City	LDDT34	0.000	0.000	0.000
Poquoson City	LDDT12	0.000	0.000	0.000
Poquoson City	HDGV8b	0.000	0.000	0.000
Poquoson City	HDGV8a	0.000	0.000	0.000
Poquoson City	HDGV7	0.000	0.000	0.001
Poquoson City	HDGV6	0.000	0.000	0.001
Poquoson City	HDGV5	0.000	0.000	0.001
Poquoson City	HDGV4	0.000	0.000	0.000
Poquoson City	HDGV3	0.000	0.000	0.000
Poquoson City	HDGV2b	0.001	0.003	0.012
Poquoson City	HDGB	0.000	0.000	0.000
Poquoson City	HDDV8b	0.001	0.012	0.004
Poquoson City	HDDV8a	0.000	0.003	0.001
Poquoson City	HDDV7	0.000	0.002	0.001
Poquoson City	HDDV6	0.000	0.001	0.000
Poquoson City	HDDV5	0.000	0.000	0.000
Poquoson City	HDDV4	0.000	0.000	0.000
Poquoson City	HDDV3	0.000	0.000	0.000
Poquoson City	HDDV2b	0.000	0.001	0.000
Poquoson City	HDDBT	0.000	0.000	0.000
Poquoson City	HDDBS	0.000	0.001	0.000
Total for Poquoson City		*0.138*	*0.124*	*1.264*
Portsmouth City	MC	0.021	0.010	0.122
Portsmouth City	LDGV	0.975	0.767	10.511
Portsmouth City	LDGT4	0.072	0.087	0.832
Portsmouth City	LDGT3	0.149	0.144	1.775
Portsmouth City	LDGT2	0.485	0.473	5.870
Portsmouth City	LDGT1	0.139	0.108	1.608
Portsmouth City	LDDV	0.000	0.000	0.001
Portsmouth City	LDDT34	0.001	0.002	0.002
Portsmouth City	LDDT12	0.000	0.000	0.000
Portsmouth City	HDGV8b	0.000	0.000	0.000
Portsmouth City	HDGV8a	0.000	0.000	0.000
Portsmouth City	HDGV7	0.001	0.003	0.008
Portsmouth City	HDGV6	0.002	0.006	0.017
Portsmouth City	HDGV5	0.001	0.003	0.008
Portsmouth City	HDGV4	0.000	0.001	0.002
Portsmouth City	HDGV3	0.001	0.002	0.007
Portsmouth City	HDGV2b	0.017	0.068	0.187
Portsmouth City	HDGB	0.000	0.001	0.002
Portsmouth City	HDDV8b	0.015	0.310	0.065
Portsmouth City	HDDV8a	0.004	0.071	0.014
Portsmouth City	HDDV7	0.003	0.049	0.009
Portsmouth City	HDDV6	0.002	0.027	0.005

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Portsmouth City	HDDV5	0.000	0.005	0.001
Portsmouth City	HDDV4	0.000	0.009	0.002
Portsmouth City	HDDV3	0.000	0.007	0.001
Portsmouth City	HDDV2b	0.001	0.021	0.004
Portsmouth City	HDDBT	0.000	0.010	0.002
Portsmouth City	HDDBS	0.001	0.016	0.003
Total for Portsmouth City		*1.890*	*2.200*	*21.059*
Suffolk City	MC	0.024	0.013	0.141
Suffolk City	LDGV	1.252	1.041	15.337
Suffolk City	LDGT4	0.089	0.114	1.160
Suffolk City	LDGT3	0.184	0.188	2.472
Suffolk City	LDGT2	0.609	0.627	8.292
Suffolk City	LDGT1	0.174	0.143	2.277
Suffolk City	LDDV	0.000	0.001	0.001
Suffolk City	LDDT34	0.002	0.003	0.003
Suffolk City	LDDT12	0.000	0.000	0.000
Suffolk City	HDGV8b	0.000	0.000	0.000
Suffolk City	HDGV8a	0.000	0.000	0.000
Suffolk City	HDGV7	0.001	0.005	0.016
Suffolk City	HDGV6	0.003	0.011	0.034
Suffolk City	HDGV5	0.001	0.005	0.016
Suffolk City	HDGV4	0.001	0.002	0.005
Suffolk City	HDGV3	0.001	0.005	0.014
Suffolk City	HDGV2b	0.032	0.141	0.373
Suffolk City	HDGB	0.000	0.002	0.004
Suffolk City	HDDV8b	0.027	0.670	0.115
Suffolk City	HDDV8a	0.006	0.153	0.025
Suffolk City	HDDV7	0.005	0.106	0.016
Suffolk City	HDDV6	0.003	0.059	0.009
Suffolk City	HDDV5	0.000	0.010	0.002
Suffolk City	HDDV4	0.001	0.020	0.003
Suffolk City	HDDV3	0.001	0.015	0.003
Suffolk City	HDDV2b	0.002	0.047	0.008
Suffolk City	HDDBT	0.000	0.023	0.004
Suffolk City	HDDBS	0.002	0.036	0.005
Total for Suffolk City		*2.420*	*3.439*	*30.332*
Virginia Beach City	MC	0.091	0.048	0.529
Virginia Beach City	LDGV	3.401	2.839	41.092
Virginia Beach City	LDGT4	0.227	0.320	3.039
Virginia Beach City	LDGT3	0.462	0.514	6.447
Virginia Beach City	LDGT2	1.550	1.723	22.094
Virginia Beach City	LDGT1	0.439	0.386	6.002
Virginia Beach City	LDDV	0.001	0.002	0.004
Virginia Beach City	LDDT34	0.005	0.008	0.009
Virginia Beach City	LDDT12	0.000	0.000	0.000
Virginia Beach City	HDGV8b	0.000	0.000	0.000
Virginia Beach City	HDGV8a	0.000	0.000	0.000
Virginia Beach City	HDGV7	0.002	0.009	0.033
Virginia Beach City	HDGV6	0.005	0.020	0.071
Virginia Beach City	HDGV5	0.002	0.009	0.033
Virginia Beach City	HDGV4	0.001	0.003	0.009

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Virginia Beach City	HDGV3	0.002	0.009	0.030
Virginia Beach City	HDGV2b	0.056	0.249	0.784
Virginia Beach City	HDGB	0.001	0.003	0.006
Virginia Beach City	HDDV8b	0.062	1.150	0.231
Virginia Beach City	HDDV8a	0.015	0.266	0.051
Virginia Beach City	HDDV7	0.012	0.190	0.033
Virginia Beach City	HDDV6	0.007	0.106	0.018
Virginia Beach City	HDDV5	0.001	0.018	0.004
Virginia Beach City	HDDV4	0.002	0.036	0.007
Virginia Beach City	HDDV3	0.002	0.027	0.006
Virginia Beach City	HDDV2b	0.005	0.085	0.017
Virginia Beach City	HDDBT	0.001	0.041	0.008
Virginia Beach City	HDDBS	0.003	0.064	0.010
Total for Virginia Beach City		*6.353*	*8.123*	*80.656*
Williamsburg City	MC	0.003	0.001	0.019
Williamsburg City	LDGV	0.100	0.081	1.138
Williamsburg City	LDGT4	0.008	0.010	0.091
Williamsburg City	LDGT3	0.016	0.015	0.193
Williamsburg City	LDGT2	0.051	0.051	0.655
Williamsburg City	LDGT1	0.015	0.012	0.178
Williamsburg City	LDDV	0.000	0.000	0.000
Williamsburg City	LDDT34	0.000	0.000	0.000
Williamsburg City	LDDT12	0.000	0.000	0.000
Williamsburg City	HDGV8b	0.000	0.000	0.000
Williamsburg City	HDGV8a	0.000	0.000	0.000
Williamsburg City	HDGV7	0.000	0.000	0.001
Williamsburg City	HDGV6	0.000	0.000	0.002
Williamsburg City	HDGV5	0.000	0.000	0.001
Williamsburg City	HDGV4	0.000	0.000	0.000
Williamsburg City	HDGV3	0.000	0.000	0.001
Williamsburg City	HDGV2b	0.002	0.005	0.022
Williamsburg City	HDGB	0.000	0.000	0.000
Williamsburg City	HDDV8b	0.002	0.025	0.006
Williamsburg City	HDDV8a	0.000	0.006	0.001
Williamsburg City	HDDV7	0.000	0.004	0.001
Williamsburg City	HDDV6	0.000	0.002	0.000
Williamsburg City	HDDV5	0.000	0.000	0.000
Williamsburg City	HDDV4	0.000	0.001	0.000
Williamsburg City	HDDV3	0.000	0.001	0.000
Williamsburg City	HDDV2b	0.000	0.002	0.000
Williamsburg City	HDDBT	0.000	0.001	0.000
Williamsburg City	HDDBS	0.000	0.001	0.000
Total for Williamsburg City		*0.197*	*0.221*	*2.311*
York County	MC	0.023	0.012	0.137
York County	LDGV	0.943	0.790	11.929
York County	LDGT4	0.067	0.091	0.914
York County	LDGT3	0.138	0.148	1.945
York County	LDGT2	0.465	0.502	6.645
York County	LDGT1	0.132	0.114	1.818
York County	LDDV	0.000	0.001	0.001
York County	LDDT34	0.001	0.003	0.002

Table 4.2-7c				
Hampton Roads Area 2011 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
York County	LDDT12	0.000	0.000	0.000
York County	HDGV8b	0.000	0.000	0.000
York County	HDGV8a	0.000	0.000	0.000
York County	HDGV7	0.001	0.003	0.010
York County	HDGV6	0.002	0.007	0.023
York County	HDGV5	0.001	0.003	0.011
York County	HDGV4	0.000	0.001	0.003
York County	HDGV3	0.001	0.003	0.010
York County	HDGV2b	0.019	0.086	0.250
York County	HDGB	0.000	0.001	0.002
York County	HDDV8b	0.017	0.431	0.074
York County	HDDV8a	0.004	0.099	0.016
York County	HDDV7	0.003	0.069	0.010
York County	HDDV6	0.002	0.038	0.006
York County	HDDV5	0.000	0.006	0.001
York County	HDDV4	0.001	0.013	0.002
York County	HDDV3	0.000	0.010	0.002
York County	HDDV2b	0.001	0.031	0.005
York County	HDDBT	0.000	0.016	0.003
York County	HDDBS	0.001	0.024	0.003
Total for York County		*1.825*	*2.502*	*23.824*
Grand Total for 2011		*36.586*	*46.867*	*445.623*

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Chesapeake City	MC	0.088	0.043	0.548
Chesapeake City	LDGV	2.213	1.828	35.417
Chesapeake City	LDGT4	0.168	0.220	2.746
Chesapeake City	LDGT3	0.342	0.359	5.812
Chesapeake City	LDGT2	1.122	1.156	19.798
Chesapeake City	LDGT1	0.304	0.272	5.330
Chesapeake City	LDDV	0.000	0.000	0.003
Chesapeake City	LDDT34	0.003	0.005	0.007
Chesapeake City	LDDT12	0.000	0.000	0.000
Chesapeake City	HDGV8b	0.000	0.000	0.000
Chesapeake City	HDGV8a	0.000	0.000	0.000
Chesapeake City	HDGV7	0.001	0.004	0.039
Chesapeake City	HDGV6	0.003	0.008	0.085
Chesapeake City	HDGV5	0.001	0.003	0.039
Chesapeake City	HDGV4	0.000	0.001	0.010
Chesapeake City	HDGV3	0.001	0.004	0.038
Chesapeake City	HDGV2b	0.035	0.102	0.862
Chesapeake City	HDGB	0.000	0.001	0.005
Chesapeake City	HDDV8b	0.051	0.439	0.088
Chesapeake City	HDDV8a	0.013	0.097	0.020
Chesapeake City	HDDV7	0.009	0.073	0.013
Chesapeake City	HDDV6	0.005	0.041	0.007
Chesapeake City	HDDV5	0.001	0.008	0.002
Chesapeake City	HDDV4	0.002	0.015	0.003
Chesapeake City	HDDV3	0.001	0.010	0.002
Chesapeake City	HDDV2b	0.004	0.033	0.007
Chesapeake City	HDDBT	0.001	0.019	0.003
Chesapeake City	HDDBS	0.003	0.036	0.005
Total for Chesapeake City		*4.371*	*4.778*	*70.888*
Gloucester County	MC	0.012	0.006	0.071
Gloucester County	LDGV	0.392	0.277	5.157
Gloucester County	LDGT4	0.033	0.038	0.445
Gloucester County	LDGT3	0.068	0.062	0.946
Gloucester County	LDGT2	0.212	0.192	3.109
Gloucester County	LDGT1	0.059	0.046	0.830
Gloucester County	LDDV	0.000	0.000	0.000
Gloucester County	LDDT34	0.000	0.001	0.001
Gloucester County	LDDT12	0.000	0.000	0.000
Gloucester County	HDGV8b	0.000	0.000	0.000
Gloucester County	HDGV8a	0.000	0.000	0.000
Gloucester County	HDGV7	0.001	0.001	0.010
Gloucester County	HDGV6	0.001	0.003	0.022
Gloucester County	HDGV5	0.001	0.001	0.010
Gloucester County	HDGV4	0.000	0.000	0.003
Gloucester County	HDGV3	0.000	0.002	0.010
Gloucester County	HDGV2b	0.015	0.040	0.235
Gloucester County	HDGB	0.000	0.000	0.001
Gloucester County	HDDV8b	0.012	0.164	0.027
Gloucester County	HDDV8a	0.003	0.035	0.006
Gloucester County	HDDV7	0.002	0.026	0.004

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Gloucester County	HDDV6	0.001	0.015	0.002
Gloucester County	HDDV5	0.000	0.003	0.001
Gloucester County	HDDV4	0.000	0.006	0.001
Gloucester County	HDDV3	0.000	0.003	0.001
Gloucester County	HDDV2b	0.001	0.011	0.002
Gloucester County	HDDBT	0.000	0.008	0.001
Total for Gloucester County		*0.816*	*0.954*	*10.898*
Hampton City	MC	0.055	0.026	0.349
Hampton City	LDGV	1.509	1.191	21.384
Hampton City	LDGT4	0.127	0.150	1.749
Hampton City	LDGT3	0.261	0.248	3.711
Hampton City	LDGT2	0.836	0.783	12.396
Hampton City	LDGT1	0.231	0.186	3.317
Hampton City	LDDV	0.000	0.000	0.002
Hampton City	LDDT34	0.002	0.003	0.005
Hampton City	LDDT12	0.000	0.000	0.000
Hampton City	HDGV8b	0.000	0.000	0.000
Hampton City	HDGV8a	0.000	0.000	0.000
Hampton City	HDGV7	0.001	0.003	0.022
Hampton City	HDGV6	0.002	0.006	0.049
Hampton City	HDGV5	0.001	0.003	0.022
Hampton City	HDGV4	0.000	0.001	0.005
Hampton City	HDGV3	0.001	0.003	0.022
Hampton City	HDGV2b	0.029	0.077	0.500
Hampton City	HDGB	0.000	0.001	0.003
Hampton City	HDDV8b	0.031	0.307	0.062
Hampton City	HDDV8a	0.008	0.067	0.013
Hampton City	HDDV7	0.006	0.050	0.009
Hampton City	HDDV6	0.003	0.027	0.005
Hampton City	HDDV5	0.001	0.005	0.001
Hampton City	HDDV4	0.001	0.011	0.002
Hampton City	HDDV3	0.001	0.006	0.001
Hampton City	HDDV2b	0.002	0.022	0.005
Hampton City	HDDBT	0.000	0.013	0.002
Hampton City	HDDBS	0.002	0.025	0.004
Total for Hampton City		*3.112*	*3.211*	*43.643*
Isle of Wight County	MC	0.017	0.008	0.090
Isle of Wight County	LDGV	0.475	0.329	5.860
Isle of Wight County	LDGT4	0.041	0.043	0.500
Isle of Wight County	LDGT3	0.084	0.072	1.062
Isle of Wight County	LDGT2	0.261	0.221	3.483
Isle of Wight County	LDGT1	0.073	0.052	0.926
Isle of Wight County	LDDV	0.000	0.000	0.000
Isle of Wight County	LDDT34	0.001	0.001	0.001
Isle of Wight County	LDDT12	0.000	0.000	0.000
Isle of Wight County	HDGV8b	0.000	0.000	0.000
Isle of Wight County	HDGV8a	0.000	0.000	0.000
Isle of Wight County	HDGV7	0.000	0.001	0.007
Isle of Wight County	HDGV6	0.001	0.002	0.016
Isle of Wight County	HDGV5	0.000	0.001	0.007
Isle of Wight County	HDGV4	0.000	0.000	0.002

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Isle of Wight County	HDGV3	0.000	0.001	0.007
Isle of Wight County	HDGV2b	0.013	0.029	0.165
Isle of Wight County	HDGB	0.000	0.000	0.001
Isle of Wight County	HDDV8b	0.011	0.096	0.021
Isle of Wight County	HDDV8a	0.003	0.021	0.004
Isle of Wight County	HDDV7	0.002	0.016	0.003
Isle of Wight County	HDDV6	0.001	0.009	0.002
Isle of Wight County	HDDV5	0.000	0.002	0.000
Isle of Wight County	HDDV4	0.000	0.003	0.001
Isle of Wight County	HDDV3	0.000	0.002	0.000
Isle of Wight County	HDDV2b	0.001	0.007	0.002
Isle of Wight County	HDDBT	0.000	0.004	0.001
Isle of Wight County	HDDBS	0.001	0.008	0.001
Total for Isle of Wight County		*0.986*	*0.927*	*12.163*
James City County	MC	0.023	0.011	0.126
James City County	LDGV	0.478	0.404	8.164
James City County	LDGT4	0.039	0.053	0.663
James City County	LDGT3	0.080	0.086	1.404
James City County	LDGT2	0.263	0.276	4.756
James City County	LDGT1	0.071	0.065	1.278
James City County	LDDV	0.000	0.000	0.001
James City County	LDDT34	0.001	0.001	0.002
James City County	LDDT12	0.000	0.000	0.000
James City County	HDGV8b	0.000	0.000	0.000
James City County	HDGV8a	0.000	0.000	0.000
James City County	HDGV7	0.000	0.001	0.010
James City County	HDGV6	0.001	0.003	0.023
James City County	HDGV5	0.000	0.001	0.010
James City County	HDGV4	0.000	0.000	0.003
James City County	HDGV3	0.000	0.001	0.010
James City County	HDGV2b	0.011	0.035	0.231
James City County	HDGB	0.000	0.000	0.001
James City County	HDDV8b	0.014	0.141	0.025
James City County	HDDV8a	0.003	0.031	0.005
James City County	HDDV7	0.003	0.023	0.004
James City County	HDDV6	0.001	0.013	0.002
James City County	HDDV5	0.000	0.003	0.000
James City County	HDDV4	0.000	0.005	0.001
James City County	HDDV3	0.000	0.003	0.001
James City County	HDDV2b	0.001	0.010	0.002
James City County	HDDBT	0.000	0.007	0.001
James City County	HDDBS	0.001	0.012	0.002
Total for James City County		*0.994*	*1.186*	*16.725*
Newport News City	MC	0.062	0.030	0.385
Newport News City	LDGV	1.459	1.178	21.858
Newport News City	LDGT4	0.123	0.151	1.787
Newport News City	LDGT3	0.251	0.247	3.780
Newport News City	LDGT2	0.814	0.787	12.800
Newport News City	LDGT1	0.223	0.185	3.427
Newport News City	LDDV	0.000	0.000	0.002
Newport News City	LDDT34	0.002	0.003	0.005

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Newport News City	LDDT12	0.000	0.000	0.000
Newport News City	HDGV8b	0.000	0.000	0.000
Newport News City	HDGV8a	0.000	0.000	0.000
Newport News City	HDGV7	0.001	0.002	0.024
Newport News City	HDGV6	0.002	0.005	0.053
Newport News City	HDGV5	0.001	0.002	0.024
Newport News City	HDGV4	0.000	0.001	0.006
Newport News City	HDGV3	0.001	0.003	0.024
Newport News City	HDGV2b	0.027	0.071	0.544
Newport News City	HDGB	0.000	0.001	0.003
Newport News City	HDDV8b	0.035	0.281	0.060
Newport News City	HDDV8a	0.009	0.061	0.013
Newport News City	HDDV7	0.006	0.046	0.009
Newport News City	HDDV6	0.004	0.026	0.005
Newport News City	HDDV5	0.001	0.005	0.001
Newport News City	HDDV4	0.001	0.010	0.002
Newport News City	HDDV3	0.001	0.006	0.001
Newport News City	HDDV2b	0.003	0.021	0.005
Newport News City	HDDBT	0.001	0.012	0.002
Newport News City	HDDBS	0.002	0.024	0.004
Total for Newport News City		*3.028*	*3.160*	*44.825*
Norfolk City	MC	0.066	0.035	0.398
Norfolk City	LDGV	1.786	1.508	28.528
Norfolk City	LDGT4	0.153	0.200	2.386
Norfolk City	LDGT3	0.313	0.328	5.055
Norfolk City	LDGT2	1.011	1.036	17.004
Norfolk City	LDGT1	0.276	0.245	4.561
Norfolk City	LDDV	0.000	0.000	0.003
Norfolk City	LDDT34	0.002	0.004	0.006
Norfolk City	LDDT12	0.000	0.000	0.000
Norfolk City	HDGV8b	0.000	0.000	0.000
Norfolk City	HDGV8a	0.000	0.000	0.000
Norfolk City	HDGV7	0.001	0.003	0.031
Norfolk City	HDGV6	0.003	0.007	0.068
Norfolk City	HDGV5	0.001	0.003	0.031
Norfolk City	HDGV4	0.000	0.001	0.008
Norfolk City	HDGV3	0.001	0.004	0.031
Norfolk City	HDGV2b	0.033	0.098	0.702
Norfolk City	HDGB	0.000	0.001	0.004
Norfolk City	HDDV8b	0.043	0.394	0.078
Norfolk City	HDDV8a	0.011	0.086	0.017
Norfolk City	HDDV7	0.008	0.065	0.012
Norfolk City	HDDV6	0.004	0.036	0.006
Norfolk City	HDDV5	0.001	0.007	0.001
Norfolk City	HDDV4	0.001	0.014	0.003
Norfolk City	HDDV3	0.001	0.008	0.002
Norfolk City	HDDV2b	0.003	0.029	0.006
Norfolk City	HDDBT	0.001	0.017	0.003
Norfolk City	HDDBS	0.002	0.033	0.005
Total for Norfolk City		*3.723*	*4.163*	*58.948*
Poquoson City	MC	0.002	0.001	0.015

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Poquoson City	LDGV	0.052	0.033	0.549
Poquoson City	LDGT4	0.004	0.004	0.046
Poquoson City	LDGT3	0.008	0.007	0.097
Poquoson City	LDGT2	0.025	0.021	0.323
Poquoson City	LDGT1	0.007	0.005	0.086
Poquoson City	LDDV	0.000	0.000	0.000
Poquoson City	LDDT34	0.000	0.000	0.000
Poquoson City	LDDT12	0.000	0.000	0.000
Poquoson City	HDGV8b	0.000	0.000	0.000
Poquoson City	HDGV8a	0.000	0.000	0.000
Poquoson City	HDGV7	0.000	0.000	0.001
Poquoson City	HDGV6	0.000	0.000	0.001
Poquoson City	HDGV5	0.000	0.000	0.001
Poquoson City	HDGV4	0.000	0.000	0.000
Poquoson City	HDGV3	0.000	0.000	0.001
Poquoson City	HDGV2b	0.001	0.001	0.012
Poquoson City	HDGB	0.000	0.000	0.000
Poquoson City	HDDV8b	0.001	0.005	0.002
Poquoson City	HDDV8a	0.000	0.001	0.000
Poquoson City	HDDV7	0.000	0.001	0.000
Poquoson City	HDDV6	0.000	0.000	0.000
Poquoson City	HDDV5	0.000	0.000	0.000
Poquoson City	HDDV4	0.000	0.000	0.000
Poquoson City	HDDV3	0.000	0.000	0.000
Poquoson City	HDDV2b	0.000	0.000	0.000
Poquoson City	HDDBT	0.000	0.000	0.000
Poquoson City	HDDBS	0.000	0.000	0.000
Total for Poquoson City		*0.101*	*0.081*	*1.135*
Portsmouth City	MC	0.023	0.011	0.138
Portsmouth City	LDGV	0.623	0.511	9.000
Portsmouth City	LDGT4	0.054	0.064	0.737
Portsmouth City	LDGT3	0.110	0.106	1.564
Portsmouth City	LDGT2	0.344	0.329	5.164
Portsmouth City	LDGT1	0.095	0.078	1.380
Portsmouth City	LDDV	0.000	0.000	0.001
Portsmouth City	LDDT34	0.001	0.001	0.002
Portsmouth City	LDDT12	0.000	0.000	0.000
Portsmouth City	HDGV8b	0.000	0.000	0.000
Portsmouth City	HDGV8a	0.000	0.000	0.000
Portsmouth City	HDGV7	0.000	0.001	0.009
Portsmouth City	HDGV6	0.001	0.002	0.019
Portsmouth City	HDGV5	0.000	0.001	0.008
Portsmouth City	HDGV4	0.000	0.000	0.002
Portsmouth City	HDGV3	0.000	0.001	0.009
Portsmouth City	HDGV2b	0.011	0.028	0.192
Portsmouth City	HDGB	0.000	0.000	0.001
Portsmouth City	HDDV8b	0.012	0.109	0.023
Portsmouth City	HDDV8a	0.003	0.024	0.005
Portsmouth City	HDDV7	0.002	0.018	0.003
Portsmouth City	HDDV6	0.001	0.010	0.002
Portsmouth City	HDDV5	0.000	0.002	0.000

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Portsmouth City	HDDV4	0.000	0.004	0.001
Portsmouth City	HDDV3	0.000	0.002	0.001
Portsmouth City	HDDV2b	0.001	0.008	0.002
Portsmouth City	HDDBT	0.000	0.004	0.001
Portsmouth City	HDDBS	0.001	0.009	0.001
Total for Portsmouth City		*1.283*	*1.325*	*18.263*
Suffolk City	MC	0.027	0.015	0.164
Suffolk City	LDGV	0.860	0.725	13.630
Suffolk City	LDGT4	0.070	0.089	1.079
Suffolk City	LDGT3	0.143	0.147	2.288
Suffolk City	LDGT2	0.458	0.461	7.629
Suffolk City	LDGT1	0.125	0.109	2.046
Suffolk City	LDDV	0.000	0.000	0.001
Suffolk City	LDDT34	0.001	0.002	0.003
Suffolk City	LDDT12	0.000	0.000	0.000
Suffolk City	HDGV8b	0.000	0.000	0.000
Suffolk City	HDGV8a	0.000	0.000	0.000
Suffolk City	HDGV7	0.001	0.002	0.018
Suffolk City	HDGV6	0.002	0.005	0.038
Suffolk City	HDGV5	0.001	0.002	0.018
Suffolk City	HDGV4	0.000	0.001	0.004
Suffolk City	HDGV3	0.001	0.002	0.017
Suffolk City	HDGV2b	0.021	0.063	0.393
Suffolk City	HDGB	0.000	0.001	0.002
Suffolk City	HDDV8b	0.024	0.250	0.045
Suffolk City	HDDV8a	0.006	0.054	0.010
Suffolk City	HDDV7	0.004	0.041	0.007
Suffolk City	HDDV6	0.002	0.023	0.004
Suffolk City	HDDV5	0.000	0.004	0.001
Suffolk City	HDDV4	0.001	0.009	0.002
Suffolk City	HDDV3	0.001	0.005	0.001
Suffolk City	HDDV2b	0.002	0.018	0.004
Suffolk City	HDDBT	0.000	0.011	0.002
Suffolk City	HDDBS	0.001	0.021	0.003
Total for Suffolk City		*1.751*	*2.059*	*27.408*
Virginia Beach City	MC	0.105	0.054	0.605
Virginia Beach City	LDGV	2.362	1.917	36.542
Virginia Beach City	LDGT4	0.174	0.230	2.828
Virginia Beach City	LDGT3	0.354	0.372	5.972
Virginia Beach City	LDGT2	1.174	1.206	20.499
Virginia Beach City	LDGT1	0.317	0.283	5.495
Virginia Beach City	LDDV	0.000	0.000	0.004
Virginia Beach City	LDDT34	0.003	0.004	0.008
Virginia Beach City	LDDT12	0.000	0.000	0.000
Virginia Beach City	HDGV8b	0.000	0.000	0.000
Virginia Beach City	HDGV8a	0.000	0.000	0.000
Virginia Beach City	HDGV7	0.001	0.003	0.037
Virginia Beach City	HDGV6	0.003	0.007	0.081
Virginia Beach City	HDGV5	0.001	0.003	0.037
Virginia Beach City	HDGV4	0.000	0.001	0.009
Virginia Beach City	HDGV3	0.001	0.004	0.036

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
Virginia Beach City	HDGV2b	0.036	0.098	0.821
Virginia Beach City	HDGB	0.000	0.001	0.004
Virginia Beach City	HDDV8b	0.055	0.375	0.085
Virginia Beach City	HDDV8a	0.014	0.083	0.019
Virginia Beach City	HDDV7	0.010	0.063	0.013
Virginia Beach City	HDDV6	0.006	0.035	0.007
Virginia Beach City	HDDV5	0.001	0.007	0.002
Virginia Beach City	HDDV4	0.002	0.013	0.003
Virginia Beach City	HDDV3	0.002	0.008	0.002
Virginia Beach City	HDDV2b	0.004	0.029	0.007
Virginia Beach City	HDDBT	0.001	0.017	0.003
Virginia Beach City	HDDBS	0.003	0.032	0.005
Total for Virginia Beach City		*4.630*	*4.848*	*73.123*
Williamsburg City	MC	0.003	0.002	0.021
Williamsburg City	LDGV	0.069	0.053	1.005
Williamsburg City	LDGT4	0.006	0.007	0.082
Williamsburg City	LDGT3	0.012	0.011	0.174
Williamsburg City	LDGT2	0.039	0.036	0.590
Williamsburg City	LDGT1	0.011	0.008	0.158
Williamsburg City	LDDV	0.000	0.000	0.000
Williamsburg City	LDDT34	0.000	0.000	0.000
Williamsburg City	LDDT12	0.000	0.000	0.000
Williamsburg City	HDGV8b	0.000	0.000	0.000
Williamsburg City	HDGV8a	0.000	0.000	0.000
Williamsburg City	HDGV7	0.000	0.000	0.001
Williamsburg City	HDGV6	0.000	0.000	0.002
Williamsburg City	HDGV5	0.000	0.000	0.001
Williamsburg City	HDGV4	0.000	0.000	0.000
Williamsburg City	HDGV3	0.000	0.000	0.001
Williamsburg City	HDGV2b	0.001	0.002	0.022
Williamsburg City	HDGB	0.000	0.000	0.000
Williamsburg City	HDDV8b	0.002	0.008	0.002
Williamsburg City	HDDV8a	0.000	0.002	0.001
Williamsburg City	HDDV7	0.000	0.001	0.000
Williamsburg City	HDDV6	0.000	0.001	0.000
Williamsburg City	HDDV5	0.000	0.000	0.000
Williamsburg City	HDDV4	0.000	0.000	0.000
Williamsburg City	HDDV3	0.000	0.000	0.000
Williamsburg City	HDDV2b	0.000	0.001	0.000
Williamsburg City	HDDBT	0.000	0.000	0.000
Williamsburg City	HDDBS	0.000	0.001	0.000
Total for Williamsburg City		*0.143*	*0.133*	*2.062*
York County	MC	0.027	0.014	0.162
York County	LDGV	0.692	0.560	10.916
York County	LDGT4	0.053	0.070	0.869
York County	LDGT3	0.108	0.115	1.841
York County	LDGT2	0.355	0.369	6.240
York County	LDGT1	0.097	0.087	1.676
York County	LDDV	0.000	0.000	0.001
York County	LDDT34	0.001	0.001	0.002
York County	LDDT12	0.000	0.000	0.000

Table 4.2-7d				
Hampton Roads Area 2018 Daily Mobile Source Emissions by Jurisdiction and Vehicle Class				
JURISDICTION	VEHICLE CLASS	VOC (TPD)	NOx (TPD)	CO (TPD)
York County	HDGV8b	0.000	0.000	0.000
York County	HDGV8a	0.000	0.000	0.000
York County	HDGV7	0.000	0.001	0.012
York County	HDGV6	0.001	0.003	0.026
York County	HDGV5	0.000	0.001	0.012
York County	HDGV4	0.000	0.000	0.003
York County	HDGV3	0.000	0.001	0.012
York County	HDGV2b	0.013	0.039	0.268
York County	HDGB	0.000	0.000	0.002
York County	HDDV8b	0.016	0.161	0.029
York County	HDDV8a	0.004	0.035	0.006
York County	HDDV7	0.003	0.027	0.004
York County	HDDV6	0.002	0.015	0.002
York County	HDDV5	0.000	0.003	0.001
York County	HDDV4	0.001	0.006	0.001
York County	HDDV3	0.000	0.003	0.001
York County	HDDV2b	0.001	0.012	0.002
York County	HDDBT	0.000	0.008	0.001
York County	HDDBS	0.001	0.014	0.002
Total for York County		*1.377*	*1.547*	*22.091*
Grand Total for 2018		*26.314*	*28.370*	*402.171*

5. Nonroad Emissions

The nonroad emissions category includes a diverse collection of engines, equipment, vehicles, and vessels. These include outdoor power equipment, recreational vehicles, farm and construction machinery, lawn and garden equipment, marine vessels, locomotives, and many other applications. Until the mid-1990s, emissions from these engines were largely uncontrolled. However in the past 10 years, EPA has adopted more stringent emission standards for most of these engines, culminating with the Clean Air Nonroad Diesel Rule promulgated in May 2004 that reduces exhaust emissions by more than 90%, and reduces the sulfur level in nonroad diesel fuel to 15 parts per million by 2010, more than a 99% reduction from today's levels.

Nonroad emissions were calculated with EPA's Draft NONROAD2005 model (the NONROAD model) that incorporates the recent EPA regulations affecting these engines well into the future. The NONROAD model was used to calculate emissions for all nonroad engine types except for aircraft, locomotives, and commercial marine vessels, which were inventoried separately. Tables 5-1 and 5-2 below summarize the NONROAD inputs for each jurisdiction and analysis year.

Most of Hampton Roads nonroad inputs are based on reformulated gasoline (RFG), except Gloucester and Isle of Wight County's nonroad inputs, which are based on southern-grade conventional. The temperature inputs for the entire Hampton Roads nonattainment area were based on the average minimum and maximum temperatures on the 10 highest 8-hour ozone exceedance days between 2003 and 2005. All nonroad emissions were calculated for a typical summer weekday.

Table 5-1
NONROAD Model Inputs for Hampton Roads Nonattainment Area
(except Gloucester and Isle of Wight)

Year	2002	2005	2011	2018
RVP	6.7	6.8	6.8	6.8
Oxygen Wt%	2.1	2.1	2.1	2.1
Gasoline Sulfur%	0.0129	0.0090	0.0030	0.0030
Diesel Sulfur% (Land)	0.2283	0.2283	0.0031	0.0011
Diesel Sulfur% (Marine)	0.2638	0.2639	0.0234	0.0056
CNG/LPG Sulfur%	0.003	0.003	0.003	0.003
Minimum Temp (F)	70.51	70.51	70.51	70.51
Maximum Temp (F)	88.01	88.01	88.01	88.01
Average Temp(F)	79.26	79.26	79.26	79.26
Stage II Control%	0	0	0	0

Table 5-2
NONROAD Model Inputs for Gloucester and Isle of Wight

Year	2002	2005	2011	2018
RVP	8.4	8.4	8.4	8.4
Oxygen Wt%	0	0	0	0
Gasoline Sulfur%	0.0279	0.0092	0.0030	0.0030
Diesel Sulfur% (Land)	0.2283	0.2283	0.0031	0.0011
Diesel Sulfur% (Marine)	0.2638	0.2639	0.0234	0.0056
CNG/LPG Sulfur%	0.003	0.003	0.003	0.003
Minimum Temp (F)	70.51	70.51	70.51	70.51
Maximum Temp (F)	88.01	88.01	88.01	88.01
Average Temp(F)	79.26	79.26	79.26	79.26
Stage II Control%	0	0	0	0

Tables 5-3, 5-4, and 5-5 below detail the daily emission rates calculated for each jurisdiction for nonroad equipment.

Table 5-3
Modeled Nonroad VOC Emissions, Daily (tons/day)

Locality	2002	2005	2011	2018
Chesapeake city	4.574	3.994	3.093	3.054
Gloucester County	3.589	3.403	2.815	2.378
Hampton city	2.767	2.582	2.115	1.907
Isle of Wight County	1.724	1.642	1.347	1.142
James City County	3.263	3.253	2.795	2.268
Newport News city	2.931	2.545	1.848	1.752
Norfolk city	4.741	4.087	3.090	3.018
Poquoson city	0.890	0.782	0.609	0.569
Portsmouth city	1.531	1.413	1.155	1.076
Suffolk city	2.257	2.054	1.634	1.443
Virginia Beach city	12.386	11.266	9.062	8.299
Williamsburg city	0.418	0.414	0.359	0.312
York County	4.562	3.996	3.090	2.903
Total VOC	**45.633**	**41.430**	**33.014**	**30.121**

Table 5-4 Modeled Nonroad NOx Emissions, Daily (tons/day)				
Locality	**2002**	**2005**	**2011**	**2018**
Chesapeake city	1.785	1.698	1.363	1.089
Gloucester County	0.735	0.731	0.669	0.549
Hampton city	0.775	0.748	0.578	0.483
Isle of Wight County	1.296	1.229	0.946	0.623
James City County	1.971	1.895	1.562	1.026
Newport News city	3.459	3.220	2.138	1.246
Norfolk city	5.606	5.325	4.171	2.604
Poquoson city	0.137	0.143	0.150	0.160
Portsmouth city	0.407	0.391	0.306	0.257
Suffolk city	2.031	1.941	1.593	1.047
Virginia Beach city	6.219	5.996	5.027	3.624
Williamsburg city	0.082	0.079	0.066	0.060
York County	1.400	1.361	1.194	0.972
Total NO_X	**25.902**	**24.758**	**19.763**	**13.739**

Table 5-5 Modeled Nonroad CO Emissions, Daily (tons/day)				
Locality	**2002**	**2005**	**2011**	**2018**
Chesapeake city	54.826	58.667	64.306	71.377
Gloucester County	14.966	15.511	16.161	16.894
Hampton city	20.674	21.877	23.300	25.018
Isle of Wight County	12.950	13.576	13.928	14.373
James City County	17.915	18.984	20.267	21.224
Newport News city	35.277	36.922	36.671	37.203
Norfolk city	53.589	56.550	60.258	64.858
Poquoson city	5.649	5.870	6.178	6.673
Portsmouth city	13.636	14.540	15.847	17.369
Suffolk city	15.252	15.890	16.665	17.554
Virginia Beach city	104.525	110.784	120.099	131.049
Williamsburg city	4.585	4.972	5.541	6.149
York County	40.625	42.983	46.443	51.037
Total CO	**394.471**	**417.125**	**445.663**	**480.778**

6. Refueling Emissions

Refueling emissions are evaporative VOC emissions that are generated during the process of refilling a vehicle's gasoline tank. These include both gasoline spillage and the displacement of gasoline vapors from the head space of a gasoline tank into the atmosphere. Refueling emissions can be calculated with the Mobile6.2 mobile emissions model, and are typically included in the VOC gram per mile emission factor generated. In order to isolate refueling VOC emissions from other sources of evaporative and exhaust VOC emissions, two Mobile6.2 emissions runs were needed for each analysis year; one with refueling emissions included and one without refueling emissions included. Subtracting the latter from the former for each analysis year will provide the isolated refueling emissions, as shown in Table 6-1 below.

Table 6-1
VOC Refueling Emissions in tons/day

Locality	2002	2005	2011	2018
Chesapeake	0.957	0.829	0.391	0.250
Gloucester	0.205	0.160	0.082	0.048
Hampton	0.689	0.525	0.265	0.158
Isle of Wight	0.217	0.181	0.092	0.054
James City	0.251	0.193	0.091	0.061
Newport News	0.740	0.538	0.269	0.168
Norfolk	0.998	0.759	0.362	0.214
Poquoson	0.022	0.015	0.007	0.005
Portsmouth	0.305	0.237	0.117	0.066
Suffolk	0.404	0.322	0.160	0.100
Virginia Beach	1.286	0.986	0.438	0.273
Williamsburg	0.042	0.030	0.013	0.008
York	0.311	0.256	0.123	0.080
Total VOC	**6.426**	**5.032**	**2.410**	**1.485**

Many factors can affect the magnitude of refueling emissions such as temperature, gasoline RVP, and the presence of Stage II vapor recovery controls. In the Hampton Roads nonattainment area, the temperature profile was derived by compiling hourly meteorological data from the 10 highest 8-hour ozone exceedance days. In Gloucester and Isle of Wight, a gasoline RVP of 8.4 pounds per square inch was used, since these counties were not subject to RFG requirements. This number was derived by averaging together the RVP of numerous gasoline samples provided by the Virginia Department of Agriculture. The emissions from other localities in Hampton Roads, which have been subject to RFG requirements, were calculated based on the use of Phase 2 RFG in all analysis years. Phase 2 RFG has a typical RVP value of 6.7 pounds per square inch. In addition, since Stage II vapor recovery is not required in the Hampton Roads area, the controls achieved from the Stage II program were not included in the calculations.

7. Area Source Emissions

The 2002 periodic year stationary area source emissions inventories were used as the basis for the development of the other area inventories included in this document. The methodologies used to develop the 2002 SIP inventory followed approved EPA procedures and guidance.

7.1. Growth Factors

The 2002 base year inventory was used to forecast the 2005 current attainment year, 2011 interim maintenance year, and 2018 final maintenance year emission inventories using growth factors generated by the Economic Growth Analysis System (EGAS). The emission factor model produces category specific growth factors, which were used to project 2002 emissions forward to 2005, 2011 and 2018. Below is a summary of the growth factors developed by EGAS 5.0, which were used. Growth factors with a value less than 1.0 reflect negative growth for that source category. The factors provided reflect the overall net growth for the periods, not annual growth rates.

Table 7.1-1 below identifies the growth factor used for each general category of emissions.

Table 7.1-1
Growth Factors

SCC	General Category Description	Growth Factor 2002-2005	Growth Factor 2002-2011	Growth Factor 2002 – 2018
2102002000	Industrial Fuel Consumption, Coal	0.956	0.963	0.985
2102004000	Industrial Fuel Consumption, Distillate	0.997	1.036	1.146
2102005000	Industrial Fuel Consumption, Residual	1.016	1.017	1.106
2102006000	Industrial Fuel Consumption, Nat Gas	1.078	1.175	1.268
2102007000	Industrial Fuel Consumption, LP Gas	0.990	1.070	1.179
2102008000	Industrial Fuel Consumption, Wood	1.059	1.178	1.339
2103002000	Commercial Fuel Consumption, Coal	1.065	1.050	1.046
2103004000	Commercial Fuel Consumption, Distillate	1.171	1.324	1.463
2103005000	Commercial Fuel Consumption, Residual	1.530	1.595	1.657
2103006000	Commercial Fuel Consumption, Nat Gas	1.039	1.242	1.415
2103007000	Commercial Fuel Consumption, LP Gas	1.064	1.067	1.106
2103008000	Commercial Fuel Consumption, Wood	1.000	1.000	1.000
2104002000	Residential Fuel Consumption, Coal	1.020	0.979	0.937
2104004000	Residential Fuel Consumption, Distillate	0.996	0.937	0.824
2104006000	Residential Fuel Consumption, Nat Gas	1.081	1.234	1.356
2104007000	Residential Fuel Consumption, LP Gas	0.987	1.081	1.174
2104008000	Residential Fuel Consumption, Wood	0.998	1.002	1.010
2275001000	Aviation Emissions, Military	1.127	1.221	1.392
2275020000	Aviation Emissions, Commercial	1.103	1.361	1.615
2275050000	Aviation Emissions, General Aviation	1.103	1.361	1.615
2275060000	Aviation Emissions, Air Taxi	1.103	1.361	1.615
2275900000	Aircraft Refueling	1.103	1.361	1.615
2280002000	Commercial Marine Vessels	1.029	1.107	1.197
2280003000	Commercial Marine Vessels	1.037	1.131	1.378

Table 7.1-1 Growth Factors				
SCC	General Category Description	Growth Factor 2002-2005	Growth Factor 2002-2011	Growth Factor 2002 – 2018
2283002000	Military Marine Vessels	1.127	1.221	1.392
2302050000	Bakery	1.022	1.084	1.167
2302070001	Breweries	1.011	1.052	1.103
2302070005	Wineries	1.011	1.052	1.103
2302070010	Distilleries	1.011	1.052	1.103
2401002000	Surface Coating	1.109	1.337	1.516
2401003000	Surface Coating	1.109	1.337	1.516
2401005000	Surface Coating	1.072	1.253	1.439
2401008000	Lane Markings	1.005	1.035	1.027
2401015000	Surface Coating	1.066	1.235	1.442
2401020000	Surface Coating	1.083	1.089	1.479
2401025000	Surface Coating	1.083	1.089	1.479
2401040000	Surface Coating	1.084	1.337	1.537
2401045000	Surface Coating	1.100	1.337	1.644
2401055000	Surface Coating	1.359	2.377	2.907
2401060000	Surface Coating	1.054	1.074	1.465
2401065000	Surface Coating	1.016	1.158	1.145
2401070000	Surface Coating	1.098	1.413	1.725
2401080000	Surface Coating	1.068	1.100	1.351
2401090000	Surface Coating	1.245	1.723	2.110
2401100000	Surface Coating	1.106	1.364	1.668
2401200000	Surface Coating	1.084	1.308	1.528
2415300000	Surface Cleaning	1.113	1.320	1.621
2415330000	Surface Cleaning	1.202	1.709	2.299
2415345000	Surface Cleaning	1.223	1.642	2.009
2415360000	Surface Cleaning	1.156	1.519	1.747
2420000000	Dry cleaning	1.008	1.040	1.195
2425000000	Graphic Arts	1.035	1.101	1.300
2440020000	Industrial Adhesives	1.106	1.364	1.668
2461021000	Asphalt Paving	1.091	1.302	1.500
2461022000	Asphalt Paving	1.091	1.302	1.500
2461023000	Asphalt Roofing	1.091	1.302	1.500
2461800000	Pesticide	1.051	1.135	1.230
2461850000	Pesticide	1.098	1.305	1.487
2465800000	Pesticide	1.051	1.135	1.230
2465900000	Commercial/Consumer Solvent Use	1.051	1.135	1.230
2501050030	Petroleum Vessel Ballasting	1.063	1.178	1.315
2501050060	Petroleum Vessel Ballasting	1.087	1.076	1.025
2501050090	Petroleum Vessel Ballasting	1.087	1.076	1.025
2501050120	Petroleum Vessel Ballasting	1.005	1.035	1.027

Table 7.1-1 Growth Factors				
SCC	**General Category Description**	**Growth Factor 2002-2005**	**Growth Factor 2002-2011**	**Growth Factor 2002 – 2018**
2501050150	Petroleum Vessel Ballasting	1.103	1.361	1.615
2501050180	Petroleum Vessel Ballasting	1.087	1.076	1.025
2501060051	Tank Truck Loading/Unloading	1.005	1.035	1.027
2501060052	Tank Truck Loading/Unloading	1.005	1.035	1.027
2501060053	Tank Truck Loading/Unloading	1.005	1.035	1.027
2501060103	Vehicle Refueling and Spillage	1.005	1.035	1.027
2501060201	UST Breathing	1.005	1.035	1.027
2501995030	Petroleum Vessel Loading/Unloading	1.063	1.178	1.315
2501995060	Petroleum Vessel Loading/Unloading	1.087	1.076	1.025
2501995090	Petroleum Vessel Loading/Unloading	1.087	1.076	1.025
2501995120	Petroleum Vessel Loading/Unloading	1.005	1.035	1.027
2501995150	Petroleum Vessel Loading/Unloading	1.103	1.361	1.615
2501995180	Petroleum Vessel Loading/Unloading	1.087	1.076	1.025
2505020030	Petroleum Vessel in Transit	1.063	1.178	1.315
2505020060	Petroleum Vessel in Transit	1.063	1.178	1.315
2505020090	Petroleum Vessel in Transit	1.063	1.178	1.315
2505020120	Petroleum Vessel in Transit	1.063	1.178	1.315
2505020150	Petroleum Vessel in Transit	1.063	1.178	1.315
2505020180	Petroleum Vessel in Transit	1.063	1.178	1.315
2505030120	Tank Truck in Transit	1.005	1.035	1.027
2601010000	On-Site Incineration	1.106	1.364	1.668
2601020000	On-Site Incineration	1.091	1.302	1.500
2601030000	On-Site Incineration	1.051	1.135	1.230
2610020000	Open Burning	1.091	1.302	1.500
2610030000	Open Burning	1.051	1.135	1.230
2620030000	Landfills	1.038	1.137	1.315
2630020000	POTWs	1.038	1.137	1.315
2640000000	TSDF	1.038	1.137	1.315
2660000000	Leaking U.S.T.	1.005	1.035	1.027
2810001000	Forest Wildfires	1.000	1.000	1.000
2810015000	Prescribed Burning	1.000	1.000	1.000
2810030000	Structural Fires	1.136	1.306	1.371
2501011011	PFC Residential, Permeation	1.005	1.035	1.027
2501011012	PFC Residential, Diurnal	1.005	1.035	1.027
2501011016	PFC Residential, Transport	1.005	1.035	1.027
2501012011	PFC Commercial, Permeation	1.005	1.035	1.027
2501012012	PFC Commercial, Diurnal	1.005	1.035	1.027
2501012016	PFC Commercial, Transport	1.005	1.035	1.027

7.2. Area, Refueling, and Nonroad Emissions

The following tables show area emissions of ozone precursor emissions for 2002, 2005, 2011 and 2018 for each of the jurisdictions in the Hampton Roads nonattainment area.

Table 7.2-1					
Area Source VOC Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Gloucester County	**073**				
Gasoline/Diesel Distribution		0.84428	0.80278	0.39846	0.37558
Solvent Evaporation		1.33878	1.44808	1.52826	1.72302
Bioprocess Sources		0.01778	0.01816	0.01928	0.02075
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.02049	0.02226	0.02630	0.03024
Fuel Combustion		0.01045	0.01050	0.01106	0.01169
Other Area Sources		0.03296	0.03302	0.03309	0.03312
State Developed Non-Road		0.05325	0.05438	0.05848	0.06336
TOTAL		**2.31799**	**2.38918**	**2.07494**	**2.25775**
Isle of Wight County	**093**				
Gasoline/Diesel Distribution		0.85135	0.81782	0.39615	0.36780
Solvent Evaporation		1.43976	1.56886	1.70423	1.93180
Bioprocess Sources		0.01528	0.01561	0.01657	0.01783
Waste Management		0.00001	0.00001	0.00001	0.00001
Solid Waste Burning		0.10411	0.11380	0.06878	0.08125
Fuel Combustion		0.13648	0.13386	0.13811	0.14482
Other Area Sources		0.06333	0.06335	0.06337	0.06337
State Developed Non-Road		0.06884	0.06689	0.06712	0.06894
TOTAL		**2.67916**	**2.78021**	**2.45433**	**2.67582**
James City County	**095**				
Gasoline/Diesel Distribution		0.49562	0.43987	0.38408	0.37770
Solvent Evaporation		4.11070	4.45168	5.18723	5.93963
Bioprocess Sources		0.03612	0.03678	0.03882	0.04146
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.06074	0.06617	0.04919	0.05687
Fuel Combustion		0.05564	0.05502	0.05719	0.06018
Other Area Sources		0.00341	0.00362	0.00389	0.00400
State Developed Non-Road		0.48864	0.54493	0.58840	0.66728
TOTAL		**5.25086**	**5.59808**	**6.30881**	**7.14711**

Table 7.2-1					
Area Source VOC Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
York County	**199**	**tons/day**	**tons/day**	**tons/day**	**tons/day**
Gasoline/Diesel Distribution		1.47162	1.48460	1.55061	1.71045
Solvent Evaporation		2.42823	2.62943	2.79736	3.16684
Bioprocess Sources		0.02960	0.03023	0.03209	0.03453
Waste Management		0.00060	0.00063	0.00069	0.00079
Solid Waste Burning		0.09040	0.09845	0.05824	0.06698
Fuel Combustion		0.02112	0.02113	0.02218	0.02341
Other Area Sources		0.00167	0.00181	0.00199	0.00205
State Developed Non-Road		0.09386	0.09642	0.11002	0.12438
TOTAL		**4.13710**	**4.36270**	**4.57317**	**5.12944**
Chesapeake city	**550**				
Gasoline/Diesel Distribution		1.98767	1.86355	1.48282	1.39930
Solvent Evaporation		8.57762	9.34432	10.94400	12.63500
Bioprocess Sources		0.10445	0.10670	0.11325	0.12186
Waste Management		0.00027	0.00028	0.00030	0.00035
Solid Waste Burning		0.15252	0.16615	0.19767	0.22939
Fuel Combustion		0.14876	0.14759	0.15386	0.16205
Other Area Sources		0.02876	0.02964	0.03074	0.03117
State Developed Non-Road		1.95275	2.17458	2.34446	2.65822
TOTAL		**12.95281**	**13.83280**	**15.26710**	**17.23734**
Hampton city	**650**				
Gasoline/Diesel Distribution		1.53124	1.40091	1.25046	1.24155
Solvent Evaporation		6.96235	7.58496	9.08540	10.36963
Bioprocess Sources		0.07408	0.07567	0.08031	0.08642
Waste Management		0.00022	0.00023	0.00025	0.00029
Solid Waste Burning		0.11824	0.12892	0.15372	0.17893
Fuel Combustion		0.13340	0.13205	0.13740	0.14461
Other Area Sources		0.00381	0.00431	0.00495	0.00520
State Developed Non-Road		0.13191	0.14173	0.15306	0.17184
TOTAL		**8.95524**	**9.46879**	**10.86555**	**12.19846**
Newport News city	**700**				
Gasoline/Diesel Distribution		1.42771	1.22859	0.98286	0.90495
Solvent Evaporation		6.66126	7.31695	8.73170	9.99913
Bioprocess Sources		0.09054	0.09248	0.09816	0.10563
Waste Management		0.02676	0.02778	0.03043	0.03520
Solid Waste Burning		0.23907	0.26218	0.31702	0.37683
Fuel Combustion		0.55320	0.54356	0.56174	0.58955

Table 7.2-1					
Area Source VOC Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Other Area Sources		0.00773	0.00862	0.00973	0.01016
State Developed Non-Road		0.15123	0.11093	0.11278	0.11648
TOTAL		**9.15751**	**9.59109**	**10.84443**	**12.13790**
Norfolk city	**710**				
Gasoline/Diesel Distribution		3.52561	3.38833	3.25177	3.35407
Solvent Evaporation		7.80668	8.46688	9.79160	11.18913
Bioprocess Sources		0.11395	0.11640	0.12355	0.13295
Waste Management		0.00028	0.00029	0.00032	0.00037
Solid Waste Burning		0.18482	0.20165	0.24085	0.28117
Fuel Combustion		0.31062	0.30713	0.31930	0.33607
Other Area Sources		0.00972	0.01103	0.01267	0.01330
State Developed Non-Road		0.69082	0.70284	0.76284	0.84951
TOTAL		**12.64251**	**13.19456**	**14.50290**	**16.15656**
Poquoson city	**735**				
Gasoline/Diesel Distribution		0.05819	0.05180	0.04565	0.04708
Solvent Evaporation		0.32613	0.35062	0.37581	0.42075
Bioprocess Sources		0.00580	0.00593	0.00629	0.00677
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.06266	0.06831	0.02261	0.02597
Fuel Combustion		0.00120	0.00124	0.00134	0.00142
Other Area Sources		0.00052	0.00060	0.00068	0.00072
State Developed Non-Road		0.00231	0.00154	0.00154	0.00154
TOTAL		**0.45682**	**0.48004**	**0.45392**	**0.50425**
Portsmouth city					
Gasoline/Diesel Distribution		1.39930	1.35846	1.29828	1.28994
Solvent Evaporation		3.28257	3.56902	4.15494	4.71937
Bioprocess Sources		0.04963	0.05070	0.05382	0.05791
Waste Management		0.00015	0.00015	0.00017	0.00019
Solid Waste Burning		0.11773	0.12891	0.15529	0.18349
Fuel Combustion		0.22793	0.22408	0.23166	0.24315
Other Area Sources		0.01019	0.01156	0.01329	0.01396
State Developed Non-Road		0.12709	0.12570	0.13034	0.13938
TOTAL		**5.21459**	**5.46858**	**6.03778**	**6.64739**
Suffolk city	**800**				
Gasoline/Diesel Distribution		0.74041	0.65993	0.51582	0.46697
Solvent Evaporation		2.92704	3.17272	3.72881	4.22993
Bioprocess Sources		0.03292	0.03363	0.03570	0.03841
Waste Management		0.00014	0.00014	0.00016	0.00018
Solid Waste Burning		0.05842	0.06369	0.07594	0.08826
Fuel Combustion		0.05651	0.05586	0.05803	0.06102

Table 7.2-1					
Area Source VOC Emissions (true area + state developed nonroad)					
Source Description	**FIPS**	**2002**	**2005**	**2011**	**2018**
		tons/day	**tons/day**	**tons/day**	**tons/day**
Other Area Sources		0.02141	0.02178	0.02225	0.02244
State Developed Non-Road		0.02992	0.02659	0.02356	0.02167
TOTAL		**3.86678**	**4.03436**	**4.46027**	**4.92888**
Virginia Beach city	**810**				
Gasoline/Diesel Distribution		4.68366	4.52219	4.43286	4.69277
Solvent Evaporation		13.48426	14.60689	16.96184	19.17481
Bioprocess Sources		0.21975	0.22442	0.23809	0.25605
Waste Management		0.00282	0.00293	0.00321	0.00371
Solid Waste Burning		0.31232	0.33977	0.40291	0.46472
Fuel Combustion		0.18783	0.18805	0.19766	0.20892
Other Area Sources		0.01018	0.01155	0.01326	0.01393
State Developed Non-Road		0.15346	0.13353	0.14672	0.16011
TOTAL		**19.05428**	**20.02933**	**22.39656**	**24.97501**
Williamsburg city	**830**				
Gasoline/Diesel Distribution		0.17425	0.16270	0.15608	0.15677
Solvent Evaporation		0.45520	0.49726	0.49397	0.56240
Bioprocess Sources		0.00603	0.00616	0.00654	0.00703
Waste Management		0.00603	0.00627	0.00686	0.00794
Solid Waste Burning		0.03533	0.03851	0.01633	0.01879
Fuel Combustion		0.00695	0.00721	0.00785	0.00846
Other Area Sources		0.00061	0.00069	0.00080	0.00084
State Developed Non-Road		0.03226	0.03135	0.03142	0.03223
TOTAL		**0.71667**	**0.75016**	**0.71984**	**0.79446**
Hampton Roads Total					
Gasoline/Diesel Distribution		19.19093	18.18155	16.14592	16.38491
Solvent Evaporation		59.80059	65.00768	75.48513	86.06144
Bioprocess Sources		0.79594	0.81289	0.86248	0.92759
Waste Management		0.03728	0.03870	0.04240	0.04903
Solid Waste Burning		1.55685	1.69878	1.78483	2.08290
Fuel Combustion		1.85010	1.82727	1.89737	1.99533
Other Area Sources		0.19431	0.20158	0.21072	0.21424
State Developed Non-Road		3.97633	4.21141	4.53074	5.07493
TOTAL		**87.40232**	**91.97986**	**100.95958**	**112.79038**

Table 7.2-2					
Area Source CO Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Gloucester County	**073**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.03976	0.04327	0.05133	0.05913
Fuel Combustion		0.15202	0.15367	0.16248	0.17414
Other Area Sources		0.68959	0.68991	0.69031	0.69046
State Developed Non-Road		0.12694	0.12796	0.13883	0.15103
TOTAL		**1.00832**	**1.01480**	**1.04294**	**1.07476**
Isle of Wight County	**093**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.55222	0.60283	0.22161	0.25901
Fuel Combustion		2.36569	2.37043	2.49901	2.68768
Other Area Sources		1.34372	1.34379	1.34389	1.34393
State Developed Non-Road		0.19187	0.19082	0.20042	0.21357
TOTAL		**4.45350**	**4.50788**	**4.26494**	**4.50419**
James City County	**95**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.27146	0.29602	0.13540	0.15650
Fuel Combustion		0.91391	0.91827	0.96937	1.04206
Other Area Sources		0.04663	0.04780	0.04926	0.04982
State Developed Non-Road		0.70123	0.77333	0.85917	0.98122
TOTAL		**1.93322**	**2.03542**	**2.01320**	**2.22961**
York County	**199**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.48203	0.52559	0.19336	0.22272
Fuel Combustion		0.31755	0.32043	0.33861	0.36320
Other Area Sources		0.01863	0.01940	0.02036	0.02074
State Developed Non-Road		1.62281	1.76712	2.15614	2.54336
TOTAL		**2.44102**	**2.63254**	**2.70848**	**3.15002**
Chesapeake city	**550**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.35441	0.38651	0.46115	0.53489
Fuel Combustion		2.38586	2.39999	2.53437	2.72300
Other Area Sources		0.50331	0.50810	0.51411	0.51644
State Developed Non-Road		6.19426	6.90104	7.59798	8.68419
TOTAL		**9.43784**	**10.19565**	**11.10762**	**12.45852**
Hampton city	**650**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.28777	0.31403	0.37524	0.43603
Fuel Combustion		2.17392	2.18507	2.30681	2.47924

Table 7.2-2					
Area Source CO Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Other Area Sources		0.02042	0.02319	0.02666	0.02800
State Developed Non-Road		1.92019	2.13682	2.32186	2.64342
TOTAL		**4.40230**	**4.65911**	**5.03056**	**5.58670**
Newport News city	**700**				
Waste Management		0.00008	0.00008	0.00009	0.00011
Solid Waste Burning		0.50806	0.55700	0.67303	0.79678
Fuel Combustion		9.48314	9.50770	10.02671	10.78335
Other Area Sources		0.06020	0.06502	0.07106	0.07340
State Developed Non-Road		0.60386	0.37468	0.37722	0.38291
TOTAL		**10.65534**	**10.50447**	**11.14811**	**12.03655**
Norfolk city	**710**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.41412	0.45217	0.54104	0.63064
Fuel Combustion		5.10938	5.13393	5.42065	5.82867
Other Area Sources		0.05246	0.05957	0.06849	0.07194
State Developed Non-Road		2.36698	2.42779	2.70499	3.04977
TOTAL		**7.94294**	**8.07346**	**8.73517**	**9.58103**
Poquoson city	**735**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.42824	0.46706	0.12389	0.14263
Fuel Combustion		0.01289	0.01325	0.01404	0.01487
Other Area Sources		0.00284	0.00322	0.00370	0.00389
State Developed Non-Road		0.01346	0.00962	0.00962	0.00962
TOTAL		**0.45742**	**0.49315**	**0.15126**	**0.17100**
Portsmouth city	**740**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.28292	0.30964	0.37263	0.43782
Fuel Combustion		3.89331	3.90395	4.11708	4.42723
Other Area Sources		0.05535	0.06286	0.07227	0.07591
State Developed Non-Road		0.26811	0.26180	0.26908	0.28128
TOTAL		**4.49969**	**4.53826**	**4.83106**	**5.22224**
Suffolk city	800				
Waste Management		0.18186	0.18882	0.20685	0.23920
Solid Waste Burning		0.17341	0.18920	0.22599	0.26193
Fuel Combustion		0.92932	0.93355	0.98510	1.05855
Other Area Sources		0.41059	0.41263	0.41518	0.41617
State Developed Non-Road		0.15187	0.15207	0.16529	0.18104
TOTAL		**1.84705**	**1.87627**	**1.99841**	**2.15690**
Virginia Beach city	**810**				
Waste Management		0.14003	0.14539	0.15927	0.18418

Table 7.2-2					
Area Source CO Emissions (true area + state developed nonroad)					
Source Description	**FIPS**	**2002**	**2005**	**2011**	**2018**
		tons/day	**tons/day**	**tons/day**	**tons/day**
Solid Waste Burning		0.88689	0.96644	1.15080	1.32799
Fuel Combustion		2.81654	2.84363	3.00776	3.22902
Other Area Sources		0.05492	0.06236	0.07170	0.07531
State Developed Non-Road		1.59800	1.61047	1.91569	2.21870
TOTAL		**5.49637**	**5.62830**	**6.30522**	**7.03522**
Williamsburg city	**830**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.22255	0.24271	0.07187	0.08280
Fuel Combustion		0.07762	0.08016	0.08614	0.09286
Other Area Sources		0.00331	0.00376	0.00432	0.00454
State Developed Non-Road		0.07125	0.06887	0.06852	0.06988
TOTAL		**0.37472**	**0.39550**	**0.23086**	**0.25008**
Hampton Roads Total					
Waste Management		0.32197	0.33430	0.36620	0.42349
Solid Waste Burning		4.90385	5.35248	4.59735	5.34888
Fuel Combustion		30.63115	30.76403	32.46814	34.90388
Other Area Sources		3.26195	3.30161	3.35131	3.37056
State Developed Non-Road		15.83082	16.80240	18.78483	21.41000
TOTAL		**54.94973**	**56.55481**	**59.56783**	**65.45681**

Table 7.2-3					
Area Source NO_X Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Gloucester County	**073**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.00875	0.00954	0.01138	0.01314
Fuel Combustion		0.16911	0.17275	0.18396	0.19554
Other Area Sources		0.02506	0.02506	0.02507	0.02508
State Developed Non-Road		0.41088	0.38348	0.40608	0.43374
TOTAL		**0.61380**	**0.59083**	**0.62649**	**0.66750**
Isle of Wight County	**093**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.02957	0.03238	0.02474	0.02933
Fuel Combustion		1.98888	1.96777	2.03128	2.12900
Other Area Sources		0.02884	0.02884	0.02884	0.02884
State Developed Non-Road		0.83344	0.75992	0.69493	0.65814
TOTAL		**2.88073**	**2.78890**	**2.77979**	**2.84531**
James City County	**095**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.01969	0.02149	0.01946	0.02258
Fuel Combustion		0.84880	0.85096	0.89030	0.93975
Other Area Sources		0.00102	0.00105	0.00108	0.00110
State Developed Non-Road		0.49769	0.47183	0.45028	0.44740
TOTAL		**1.36721**	**1.34533**	**1.36112**	**1.41083**
York County	**199**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.02639	0.02878	0.02194	0.02532
Fuel Combustion		0.33618	0.34174	0.36226	0.38433
Other Area Sources		0.00041	0.00042	0.00045	0.00046
State Developed Non-Road		0.77840	0.66308	0.64668	0.64499
TOTAL		**1.14138**	**1.03402**	**1.03132**	**1.05510**
Chesapeake city	**550**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.06193	0.06765	0.08102	0.09433
Fuel Combustion		2.29960	2.31517	2.43207	2.57151
Other Area Sources		0.02169	0.02180	0.02194	0.02199
State Developed Non-Road		4.35107	4.39906	4.39131	4.64649
TOTAL		**6.73428**	**6.80368**	**6.92634**	**7.33433**
Hampton city	**650**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.04726	0.05165	0.06197	0.07235
Fuel Combustion		2.04217	2.04992	2.14721	2.26739

Table 7.2-3					
Area Source NO_X Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Other Area Sources		0.00048	0.00054	0.00062	0.00065
State Developed Non-Road		2.00110	1.99960	2.12544	2.35272
TOTAL		**4.09100**	**4.10171**	**4.33523**	**4.69311**
Newport News city	**700**				
Waste Management		0.01290	0.01339	0.01467	0.01697
Solid Waste Burning		0.09507	0.10440	0.12666	0.15074
Fuel Combustion		8.15222	8.09123	8.37987	8.79921
Other Area Sources		0.00135	0.00146	0.00160	0.00166
State Developed Non-Road		2.93200	2.30995	2.35446	2.45246
TOTAL		**11.19353**	**10.52044**	**10.87727**	**11.42104**
Norfolk city	**710**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.07493	0.08195	0.09845	0.11524
Fuel Combustion		4.75631	4.77117	4.99529	5.27662
Other Area Sources		0.00122	0.00139	0.00160	0.00168
State Developed Non-Road		9.40360	8.65856	9.03049	9.69163
TOTAL		**14.23607**	**13.51307**	**14.12583**	**15.08516**
Poquoson city	**735**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.01455	0.01587	0.00654	0.00753
Fuel Combustion		0.02090	0.02193	0.02390	0.02555
Other Area Sources		0.00007	0.00008	0.00009	0.00009
State Developed Non-Road		0.15385	0.10923	0.10923	0.10923
TOTAL		**0.18937**	**0.14710**	**0.13976**	**0.14240**
Portsmouth city	**740**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.04601	0.05046	0.06103	0.07226
Fuel Combustion		3.36311	3.33977	3.46066	3.63429
Other Area Sources		0.00129	0.00147	0.00169	0.00177
State Developed Non-Road		3.00306	2.97862	3.09280	3.35168
TOTAL		**6.41346**	**6.37031**	**6.61618**	**7.06000**
Suffolk city	**800**				
Waste Management		0.00970	0.01007	0.01103	0.01276
Solid Waste Burning		0.02217	0.02422	0.02905	0.03387
Fuel Combustion		0.85455	0.85524	0.89303	0.94113
Other Area Sources		0.00884	0.00889	0.00895	0.00897
State Developed Non-Road		0.65356	0.56601	0.47523	0.41195
TOTAL		**1.54882**	**1.46443**	**1.41730**	**1.40868**
Virginia Beach city	**810**				
Waste Management		0.00748	0.00777	0.00851	0.00984

Table 7.2-3					
Area Source NO_X Emissions (true area + state developed nonroad)					
Source Description	FIPS	2002	2005	2011	2018
		tons/day	tons/day	tons/day	tons/day
Solid Waste Burning		0.12166	0.13272	0.15847	0.18349
Fuel Combustion		3.04314	3.10313	3.30077	3.51197
Other Area Sources		0.00128	0.00146	0.00167	0.00176
State Developed Non-Road		3.83718	2.76418	2.76603	2.77141
TOTAL		**7.01075**	**6.00925**	**6.23545**	**6.47847**
Williamsburg city	**830**				
Waste Management		0.00000	0.00000	0.00000	0.00000
Solid Waste Burning		0.00894	0.00976	0.00542	0.00626
Fuel Combustion		0.14366	0.15363	0.17108	0.18711
Other Area Sources		0.00008	0.00009	0.00010	0.00011
State Developed Non-Road		0.38755	0.35437	0.32549	0.30954
TOTAL		**0.54023**	**0.51784**	**0.50209**	**0.50301**
Hampton Roads Total					
Waste Management		0.03008	0.03123	0.03421	0.03956
Solid Waste Burning		0.57693	0.63086	0.70611	0.82644
Fuel Combustion		28.01864	28.03439	29.27167	30.86340
Other Area Sources		0.09162	0.09254	0.09370	0.09415
State Developed Non-Road		29.24338	26.41789	26.86847	28.28139
TOTAL		**57.96064**	**55.20692**	**56.97416**	**60.10495**

Detailed Area and Nonroad (combined) Emissions by Category:

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Chesapeake city	3.4.1	Aircraft Refueling	0.00905	0.00998	0.01231	0.01462
Chesapeake city	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.1	Portable Fuel Containers	0.45983	0.45983	0.49770	0.55726
Chesapeake city	3.4.1	Tank Truck in Transit	0.00653	0.00656	0.00676	0.00671
Chesapeake city	3.4.1	Tank Truck Loading/Unloading	0.38011	0.38201	0.39328	0.39054
Chesapeake city	3.4.1	UST Breathing	0.17559	0.17647	0.18168	0.18041
Chesapeake city	3.4.1	Vehicle Refueling and Spillage	0.95655	0.82869	0.39110	0.24976
Chesapeake city	3.4.2	Asphalt Paving	0.00005	0.00005	0.00006	0.00007
Chesapeake city	3.4.2	Asphalt Roofing	0.00092	0.00101	0.00120	0.00138
Chesapeake city	3.4.2	Commercial/Consumer Solvent Use	2.03344	2.13640	2.30877	2.50192
Chesapeake city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.2	Graphic Arts	0.32380	0.33528	0.35639	0.42106
Chesapeake city	3.4.2	Industrial Adhesives	0.58277	0.64449	0.79495	0.97195
Chesapeake city	3.4.2	Lane Markings	0.16174	0.16254	0.16734	0.16617
Chesapeake city	3.4.2	Pesticide	1.24143	1.31542	1.44921	1.58771
Chesapeake city	3.4.2	Surface Cleaning	0.56354	0.65457	0.85846	1.00242
Chesapeake city	3.4.2	Surface Coating	3.66993	4.09456	5.00761	5.98231
Chesapeake city	3.4.3	Bakery	0.10445	0.10670	0.11325	0.12186
Chesapeake city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.4.a	TSDF	0.00027	0.00028	0.00030	0.00035
Chesapeake city	3.4.4.b	On-Site Incineration	0.14122	0.15382	0.18296	0.21245
Chesapeake city	3.4.4.b	Open Burning	0.01130	0.01232	0.01471	0.01694
Chesapeake city	3.4.5	Commercial Fuel Consumption, Coal	0.00293	0.00311	0.00307	0.00306
Chesapeake city	3.4.5	Commercial Fuel Consumption, Distillate	0.00129	0.00151	0.00170	0.00188
Chesapeake city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00034	0.00036	0.00036	0.00037
Chesapeake city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00723	0.00751	0.00898	0.01023
Chesapeake city	3.4.5	Commercial Fuel Consumption, Residual	0.00041	0.00062	0.00065	0.00067
Chesapeake city	3.4.5	Commercial Fuel Consumption, Wood	0.00004	0.00004	0.00004	0.00004
Chesapeake city	3.4.5	Industrial Fuel Consumption, Coal	0.09829	0.09399	0.09468	0.09685
Chesapeake city	3.4.5	Industrial Fuel Consumption, Distillate	0.00105	0.00105	0.00109	0.00121
Chesapeake city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00053	0.00052	0.00057	0.00063
Chesapeake city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00705	0.00759	0.00828	0.00893
Chesapeake city	3.4.5	Industrial Fuel Consumption, Residual	0.00035	0.00036	0.00036	0.00039

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Chesapeake city	3.4.5	Industrial Fuel Consumption, Wood	0.01945	0.02061	0.02292	0.02605
Chesapeake city	3.4.5	Residential Fuel Consumption, Coal	0.00109	0.00111	0.00107	0.00102
Chesapeake city	3.4.5	Residential Fuel Consumption, Distillate	0.00186	0.00185	0.00174	0.00153
Chesapeake city	3.4.5	Residential Fuel Consumption, LP Gas	0.00077	0.00076	0.00083	0.00090
Chesapeake city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00610	0.00660	0.00753	0.00828
Chesapeake city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.6	Forest Wildfires	0.01614	0.01614	0.01614	0.01614
Chesapeake city	3.4.6	Leaking U.S.T.	0.00005	0.00005	0.00005	0.00005
Chesapeake city	3.4.6	Prescribed Burning	0.00610	0.00610	0.00610	0.00610
Chesapeake city	3.4.6	Structural Fires	0.00648	0.00736	0.00846	0.00889
Chesapeake city	3.4.7	Aviation Emissions, Air Taxi	0.00285	0.00314	0.00388	0.00460
Chesapeake city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.7	Aviation Emissions, General Aviation	0.02912	0.03213	0.03962	0.04704
Chesapeake city	3.4.7	Aviation Emissions, Military	1.77480	2.00093	2.16688	2.47122
Chesapeake city	3.4.7	Commercial Marine Vessels	0.07294	0.07513	0.08100	0.08936
Chesapeake city	3.4.7	Locomotive	0.07304	0.06324	0.05308	0.04599
Chesapeake city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.8	Off-Road, Modeled, 2-Stroke	1.73746	1.27961	0.88813	0.84529
Chesapeake city	3.4.8	Off-Road, Modeled, 4-Stroke	2.00679	1.96624	1.65628	1.77662
Chesapeake city	3.4.8	Off-Road, Modeled, CNG	0.00140	0.00126	0.00095	0.00063
Chesapeake city	3.4.8	Off-Road, Modeled, Diesel	0.12485	0.11152	0.08341	0.05792
Chesapeake city	3.4.8	Off-Road, Modeled, LPG	0.08696	0.07976	0.03425	0.00962
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.58927	0.52773	0.40225	0.33526
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.02652	0.02683	0.02710	0.02751
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00042	0.00045	0.00045	0.00044
Chesapeake city	3.4.8	Railroads	0.00064	0.00061	0.00051	0.00039
Chesapeake city	**3.4.8**	**TOTAL**	**17.52711**	**17.82680**	**18.36042**	**20.29103**
Gloucester County	3.4.1	Aircraft Refueling	0.00048	0.00054	0.00066	0.00078
Gloucester County	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.1	Portable Fuel Containers	0.08369	0.08369	0.10477	0.11745
Gloucester County	3.4.1	Tank Truck in Transit	0.00506	0.00509	0.00245	0.00243
Gloucester County	3.4.1	Tank Truck Loading/Unloading	0.49258	0.49504	0.14859	0.14755
Gloucester County	3.4.1	UST Breathing	0.05768	0.05797	0.05968	0.05926
Gloucester County	3.4.1	Vehicle Refueling and Spillage	0.20478	0.16046	0.08232	0.04810
Gloucester County	3.4.2	Asphalt Paving	0.00210	0.00229	0.00091	0.00105
Gloucester County	3.4.2	Asphalt Roofing	0.00014	0.00015	0.00018	0.00021
Gloucester County	3.4.2	Commercial/Consumer Solvent Use	0.34616	0.36369	0.39303	0.42591
Gloucester County	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.2	Graphic Arts	0.08948	0.09266	0.06067	0.07168
Gloucester County	3.4.2	Industrial Adhesives	0.01930	0.02134	0.02633	0.03219
Gloucester County	3.4.2	Lane Markings	0.02753	0.02767	0.02849	0.02829

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Gloucester County	3.4.2	Pesticide	0.27702	0.29530	0.32971	0.36390
Gloucester County	3.4.2	Surface Cleaning	0.12565	0.14523	0.08083	0.09341
Gloucester County	3.4.2	Surface Coating	0.45140	0.49975	0.60811	0.70638
Gloucester County	3.4.3	Bakery	0.01778	0.01816	0.01928	0.02075
Gloucester County	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.4.a	TSDF	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.4.b	On-Site Incineration	0.02049	0.02226	0.02630	0.03024
Gloucester County	3.4.4.b	Open Burning	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.5	Commercial Fuel Consumption, Coal	0.00035	0.00038	0.00037	0.00037
Gloucester County	3.4.5	Commercial Fuel Consumption, Distillate	0.00016	0.00018	0.00021	0.00023
Gloucester County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00004	0.00004	0.00004	0.00004
Gloucester County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00087	0.00091	0.00108	0.00123
Gloucester County	3.4.5	Commercial Fuel Consumption, Residual	0.00005	0.00008	0.00008	0.00008
Gloucester County	3.4.5	Commercial Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.5	Industrial Fuel Consumption, Coal	0.00567	0.00542	0.00546	0.00558
Gloucester County	3.4.5	Industrial Fuel Consumption, Distillate	0.00006	0.00006	0.00006	0.00007
Gloucester County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00003	0.00003	0.00003	0.00004
Gloucester County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00041	0.00044	0.00048	0.00051
Gloucester County	3.4.5	Industrial Fuel Consumption, Residual	0.00002	0.00002	0.00002	0.00002
Gloucester County	3.4.5	Industrial Fuel Consumption, Wood	0.00112	0.00119	0.00132	0.00150
Gloucester County	3.4.5	Residential Fuel Consumption, Coal	0.00019	0.00019	0.00018	0.00017
Gloucester County	3.4.5	Residential Fuel Consumption, Distillate	0.00032	0.00031	0.00030	0.00026
Gloucester County	3.4.5	Residential Fuel Consumption, LP Gas	0.00013	0.00013	0.00014	0.00015
Gloucester County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00104	0.00112	0.00128	0.00141
Gloucester County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.6	Forest Wildfires	0.02677	0.02677	0.02677	0.02677
Gloucester County	3.4.6	Leaking U.S.T.	0.00002	0.00002	0.00002	0.00002
Gloucester County	3.4.6	Prescribed Burning	0.00574	0.00574	0.00574	0.00574
Gloucester County	3.4.6	Structural Fires	0.00043	0.00049	0.00057	0.00059
Gloucester County	3.4.7	Aviation Emissions, Air Taxi	0.00003	0.00003	0.00004	0.00005
Gloucester County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Aviation Emissions, General Aviation	0.00030	0.00033	0.00041	0.00048
Gloucester County	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Commercial Marine Vessels	0.05138	0.05286	0.05688	0.06168
Gloucester County	3.4.7	Locomotive	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Military Marine Vessels	0.00154	0.00115	0.00115	0.00115
Gloucester County	3.4.8	Off-Road, Modeled, 2-Stroke	0.52001	0.57912	0.53512	0.37013
Gloucester County	3.4.8	Off-Road, Modeled, 4-Stroke	0.37832	0.39060	0.36635	0.37520
Gloucester County	3.4.8	Off-Road, Modeled, CNG	0.00013	0.00010	0.00007	0.00005
Gloucester County	3.4.8	Off-Road, Modeled, Diesel	0.05950	0.05283	0.03941	0.02703

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Gloucester County	3.4.8	Off-Road, Modeled, LPG	0.00691	0.00637	0.00287	0.00092
Gloucester County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	2.41632	2.16458	1.65955	1.38958
Gloucester County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.20476	0.20644	0.20843	0.21151
Gloucester County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00288	0.00310	0.00312	0.00307
Gloucester County	3.4.8	Railroads	0.00000	0.00000	0.00000	0.00000
Gloucester County	**3.4.8**	**TOTAL**	**5.90683**	**5.79231**	**4.88986**	**4.63525**
Hampton city	3.4.1	Aircraft Refueling	0.30927	0.34123	0.42080	0.49961
Hampton city	3.4.1	Petroleum Vessel Ballasting	0.00110	0.00120	0.00118	0.00113
Hampton city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.1	Portable Fuel Containers	0.16842	0.16842	0.18781	0.20929
Hampton city	3.4.1	Tank Truck in Transit	0.00422	0.00424	0.00437	0.00433
Hampton city	3.4.1	Tank Truck Loading/Unloading	0.24551	0.24674	0.25402	0.25225
Hampton city	3.4.1	UST Breathing	0.11342	0.11398	0.11734	0.11653
Hampton city	3.4.1	Vehicle Refueling and Spillage	0.68931	0.52511	0.26494	0.15842
Hampton city	3.4.2	Asphalt Paving	0.00003	0.00004	0.00004	0.00005
Hampton city	3.4.2	Asphalt Roofing	0.00024	0.00026	0.00031	0.00036
Hampton city	3.4.2	Commercial/Consumer Solvent Use	1.44204	1.51505	1.63729	1.77426
Hampton city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.2	Graphic Arts	0.22962	0.23776	0.25273	0.29859
Hampton city	3.4.2	Industrial Adhesives	0.12356	0.13665	0.16854	0.20607
Hampton city	3.4.2	Lane Markings	0.11470	0.11527	0.11867	0.11784
Hampton city	3.4.2	Pesticide	0.74568	0.78343	0.84664	0.91747
Hampton city	3.4.2	Surface Cleaning	0.34863	0.40763	0.53536	0.63429
Hampton city	3.4.2	Surface Coating	3.95785	4.38888	5.52581	6.42070
Hampton city	3.4.3	Bakery	0.07408	0.07567	0.08031	0.08642
Hampton city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.4.a	TSDF	0.00022	0.00023	0.00025	0.00029
Hampton city	3.4.4.b	On-Site Incineration	0.10694	0.11660	0.13901	0.16199
Hampton city	3.4.4.b	Open Burning	0.01130	0.01232	0.01471	0.01694
Hampton city	3.4.5	Commercial Fuel Consumption, Coal	0.00223	0.00237	0.00234	0.00233
Hampton city	3.4.5	Commercial Fuel Consumption, Distillate	0.00098	0.00114	0.00129	0.00143
Hampton city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00026	0.00027	0.00027	0.00028
Hampton city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00550	0.00571	0.00683	0.00778
Hampton city	3.4.5	Commercial Fuel Consumption, Residual	0.00031	0.00047	0.00049	0.00051
Hampton city	3.4.5	Commercial Fuel Consumption, Wood	0.00003	0.00003	0.00003	0.00003
Hampton city	3.4.5	Industrial Fuel Consumption, Coal	0.09086	0.08688	0.08752	0.08953
Hampton city	3.4.5	Industrial Fuel Consumption, Distillate	0.00097	0.00097	0.00101	0.00111
Hampton city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00049	0.00049	0.00052	0.00058

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Hampton city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00651	0.00702	0.00765	0.00826
Hampton city	3.4.5	Industrial Fuel Consumption, Residual	0.00033	0.00033	0.00033	0.00036
Hampton city	3.4.5	Industrial Fuel Consumption, Wood	0.01798	0.01905	0.02118	0.02408
Hampton city	3.4.5	Residential Fuel Consumption, Coal	0.00077	0.00079	0.00076	0.00072
Hampton city	3.4.5	Residential Fuel Consumption, Distillate	0.00132	0.00131	0.00123	0.00108
Hampton city	3.4.5	Residential Fuel Consumption, LP Gas	0.00055	0.00054	0.00059	0.00064
Hampton city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00433	0.00468	0.00534	0.00587
Hampton city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Leaking U.S.T.	0.00006	0.00006	0.00006	0.00006
Hampton city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Structural Fires	0.00374	0.00425	0.00489	0.00513
Hampton city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.7	Aviation Emissions, Commercial	0.00173	0.00191	0.00235	0.00279
Hampton city	3.4.7	Aviation Emissions, General Aviation	0.00208	0.00229	0.00283	0.00336
Hampton city	3.4.7	Aviation Emissions, Military	0.09060	0.10214	0.11062	0.12615
Hampton city	3.4.7	Commercial Marine Vessels	0.02652	0.02729	0.02935	0.03176
Hampton city	3.4.7	Locomotive	0.00135	0.00117	0.00098	0.00085
Hampton city	3.4.7	Military Marine Vessels	0.00962	0.00692	0.00692	0.00692
Hampton city	3.4.8	Off-Road, Modeled, 2-Stroke	0.64047	0.58129	0.46708	0.37202
Hampton city	3.4.8	Off-Road, Modeled, 4-Stroke	0.79756	0.79497	0.71754	0.75302
Hampton city	3.4.8	Off-Road, Modeled, CNG	0.00110	0.00104	0.00081	0.00053
Hampton city	3.4.8	Off-Road, Modeled, Diesel	0.02821	0.02525	0.01888	0.01287
Hampton city	3.4.8	Off-Road, Modeled, LPG	0.07211	0.06592	0.02720	0.00672
Hampton city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.09158	0.97649	0.74491	0.62085
Hampton city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.13355	0.13521	0.13649	0.13857
Hampton city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00204	0.00220	0.00222	0.00219
Hampton city	3.4.8	Railroads	0.00001	0.00001	0.00000	0.00000
Hampton city	**3.4.8**	**TOTAL**	**11.72186**	**12.05116**	**12.98068**	**14.10524**
Isle of Wight County	3.4.1	Aircraft Refueling	0.00022	0.00024	0.00030	0.00036
Isle of Wight County	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.1	Portable Fuel Containers	0.07819	0.07819	0.09261	0.10340
Isle of Wight County	3.4.1	Tank Truck in Transit	0.00454	0.00457	0.00220	0.00218
Isle of Wight County	3.4.1	Tank Truck Loading/Unloading	0.49356	0.49602	0.14888	0.14785
Isle of Wight County	3.4.1	UST Breathing	0.05779	0.05808	0.05979	0.05938
Isle of Wight County	3.4.1	Vehicle Refueling and Spillage	0.21704	0.18072	0.09236	0.05464
Isle of Wight County	3.4.2	Asphalt Paving	0.00035	0.00039	0.00043	0.00050
Isle of Wight County	3.4.2	Asphalt Roofing	0.00008	0.00009	0.00010	0.00012
Isle of Wight County	3.4.2	Commercial/Consumer Solvent Use	0.29752	0.31258	0.33780	0.36606
Isle of Wight County	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.2	Graphic Arts	0.07691	0.07963	0.05214	0.06161

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Isle of Wight County	3.4.2	Industrial Adhesives	0.03045	0.03367	0.04153	0.05078
Isle of Wight County	3.4.2	Lane Markings	0.02366	0.02378	0.02448	0.02431
Isle of Wight County	3.4.2	Pesticide	0.50073	0.54224	0.62612	0.70356
Isle of Wight County	3.4.2	Surface Cleaning	0.12442	0.14400	0.08047	0.09322
Isle of Wight County	3.4.2	Surface Coating	0.38564	0.43248	0.54114	0.63165
Isle of Wight County	3.4.3	Bakery	0.01528	0.01561	0.01657	0.01783
Isle of Wight County	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.4.a	TSDF	0.00001	0.00001	0.00001	0.00001
Isle of Wight County	3.4.4.b	On-Site Incineration	0.03904	0.04283	0.05183	0.06173
Isle of Wight County	3.4.4.b	Open Burning	0.06507	0.07097	0.01694	0.01952
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Coal	0.00023	0.00024	0.00024	0.00024
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Distillate	0.00010	0.00012	0.00013	0.00014
Isle of Wight County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00003	0.00003	0.00003	0.00003
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00056	0.00058	0.00069	0.00079
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Residual	0.00003	0.00005	0.00005	0.00005
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Coal	0.10401	0.09946	0.10019	0.10248
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Distillate	0.00111	0.00111	0.00115	0.00128
Isle of Wight County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00056	0.00056	0.00060	0.00066
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00746	0.00804	0.00876	0.00945
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Residual	0.00037	0.00038	0.00038	0.00041
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Wood	0.02058	0.02181	0.02425	0.02757
Isle of Wight County	3.4.5	Residential Fuel Consumption, Coal	0.00016	0.00016	0.00016	0.00015
Isle of Wight County	3.4.5	Residential Fuel Consumption, Distillate	0.00027	0.00027	0.00025	0.00022
Isle of Wight County	3.4.5	Residential Fuel Consumption, LP Gas	0.00011	0.00011	0.00012	0.00013
Isle of Wight County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00089	0.00097	0.00110	0.00121
Isle of Wight County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.6	Forest Wildfires	0.06321	0.06321	0.06321	0.06321
Isle of Wight County	3.4.6	Leaking U.S.T.	0.00002	0.00002	0.00002	0.00002
Isle of Wight County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.6	Structural Fires	0.00010	0.00012	0.00014	0.00014
Isle of Wight County	3.4.7	Aviation Emissions, Air Taxi	0.00017	0.00019	0.00023	0.00027
Isle of Wight County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.7	Aviation Emissions, General Aviation	0.00123	0.00136	0.00167	0.00199
Isle of Wight County	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.7	Commercial Marine Vessels	0.04264	0.04387	0.04720	0.05106
Isle of Wight County	3.4.7	Locomotive	0.02480	0.02147	0.01802	0.01561
Isle of Wight County	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.8	Off-Road, Modeled, 2-Stroke	0.46378	0.46481	0.40426	0.30027
Isle of Wight County	3.4.8	Off-Road, Modeled, 4-Stroke	0.37935	0.37923	0.33488	0.34273

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Isle of Wight County	3.4.8	Off-Road, Modeled, CNG	0.00103	0.00097	0.00071	0.00046
Isle of Wight County	3.4.8	Off-Road, Modeled, Diesel	0.10673	0.09409	0.06900	0.04698
Isle of Wight County	3.4.8	Off-Road, Modeled, LPG	0.06375	0.05809	0.02357	0.00548
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.62645	0.56119	0.43025	0.36026
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.08083	0.08149	0.08228	0.08349
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00113	0.00121	0.00122	0.00121
Isle of Wight County	3.4.8	Railroads	0.00111	0.00106	0.00088	0.00069
Isle of Wight County	**3.4.8**	**TOTAL**	**4.40332**	**4.42236**	**3.80139**	**3.81740**
James City County	3.4.1	Aircraft Refueling	0.01152	0.01271	0.01568	0.01862
James City County	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
James City County	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
James City County	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
James City County	3.4.1	Portable Fuel Containers	0.13467	0.13467	0.17498	0.19674
James City County	3.4.1	Tank Truck in Transit	0.00114	0.00115	0.00118	0.00118
James City County	3.4.1	Tank Truck Loading/Unloading	0.06661	0.06694	0.06891	0.06843
James City County	3.4.1	UST Breathing	0.03077	0.03092	0.03183	0.03161
James City County	3.4.1	Vehicle Refueling and Spillage	0.25091	0.19348	0.09149	0.06112
James City County	3.4.2	Asphalt Paving	0.00030	0.00033	0.00037	0.00042
James City County	3.4.2	Asphalt Roofing	0.00023	0.00025	0.00030	0.00035
James City County	3.4.2	Commercial/Consumer Solvent Use	0.49615	0.52127	0.56333	0.61046
James City County	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
James City County	3.4.2	Graphic Arts	0.12826	0.13280	0.08696	0.10274
James City County	3.4.2	Industrial Adhesives	0.04398	0.04864	0.05999	0.07335
James City County	3.4.2	Lane Markings	0.03946	0.03966	0.04083	0.04055
James City County	3.4.2	Pesticide	0.28295	0.29890	0.32706	0.35694
James City County	3.4.2	Surface Cleaning	0.11399	0.13351	0.07882	0.09436
James City County	3.4.2	Surface Coating	3.00537	3.27631	4.02957	4.66046
James City County	3.4.3	Bakery	0.02549	0.02603	0.02763	0.02973
James City County	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
James City County	3.4.3	Distilleries	0.01063	0.01075	0.01119	0.01173
James City County	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
James City County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
James City County	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
James City County	3.4.4.a	TSDF	0.00000	0.00000	0.00000	0.00000
James City County	3.4.4.b	On-Site Incineration	0.03237	0.03523	0.04180	0.04836
James City County	3.4.4.b	Open Burning	0.02837	0.03094	0.00739	0.00851
James City County	3.4.5	Commercial Fuel Consumption, Coal	0.00087	0.00093	0.00092	0.00091
James City County	3.4.5	Commercial Fuel Consumption, Distillate	0.00038	0.00045	0.00051	0.00056
James City County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00010	0.00011	0.00011	0.00011
James City County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00215	0.00224	0.00268	0.00305
James City County	3.4.5	Commercial Fuel Consumption, Residual	0.00012	0.00019	0.00019	0.00020
James City County	3.4.5	Commercial Fuel Consumption, Wood	0.00001	0.00001	0.00001	0.00001
James City County	3.4.5	Industrial Fuel Consumption, Coal	0.03847	0.03679	0.03706	0.03791

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
James City County	3.4.5	Industrial Fuel Consumption, Distillate	0.00041	0.00041	0.00043	0.00047
James City County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00021	0.00021	0.00022	0.00024
James City County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00276	0.00297	0.00324	0.00350
James City County	3.4.5	Industrial Fuel Consumption, Residual	0.00014	0.00014	0.00014	0.00015
James City County	3.4.5	Industrial Fuel Consumption, Wood	0.00761	0.00807	0.00897	0.01020
James City County	3.4.5	Residential Fuel Consumption, Coal	0.00027	0.00027	0.00026	0.00025
James City County	3.4.5	Residential Fuel Consumption, Distillate	0.00045	0.00045	0.00042	0.00037
James City County	3.4.5	Residential Fuel Consumption, LP Gas	0.00019	0.00019	0.00020	0.00022
James City County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00149	0.00161	0.00184	0.00202
James City County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
James City County	3.4.6	Forest Wildfires	0.00178	0.00178	0.00178	0.00178
James City County	3.4.6	Leaking U.S.T.	0.00005	0.00005	0.00005	0.00005
James City County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
James City County	3.4.6	Structural Fires	0.00158	0.00179	0.00206	0.00216
James City County	3.4.7	Aviation Emissions, Air Taxi	0.00134	0.00148	0.00182	0.00216
James City County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
James City County	3.4.7	Aviation Emissions, General Aviation	0.00441	0.00487	0.00600	0.00712
James City County	3.4.7	Aviation Emissions, Military	0.44318	0.49965	0.54109	0.61708
James City County	3.4.7	Commercial Marine Vessels	0.02798	0.02879	0.03097	0.03353
James City County	3.4.7	Locomotive	0.01172	0.01015	0.00852	0.00738
James City County	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
James City County	3.4.8	Off-Road, Modeled, 2-Stroke	0.98109	1.11422	1.03463	0.70386
James City County	3.4.8	Off-Road, Modeled, 4-Stroke	0.60635	0.62672	0.59136	0.59663
James City County	3.4.8	Off-Road, Modeled, CNG	0.00043	0.00040	0.00031	0.00020
James City County	3.4.8	Off-Road, Modeled, Diesel	0.19079	0.17116	0.12950	0.08942
James City County	3.4.8	Off-Road, Modeled, LPG	0.02999	0.02739	0.01149	0.00301
James City County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.35261	1.20998	0.92368	0.76985
James City County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.09914	0.10038	0.10136	0.10291
James City County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00153	0.00165	0.00166	0.00163
James City County	3.4.8	Railroads	0.00063	0.00060	0.00050	0.00039
James City County	**3.4.8**	**TOTAL**	**8.51343**	**8.85058**	**9.10332**	**9.41502**
Newport News city	3.4.1	Aircraft Refueling	0.00467	0.00515	0.00635	0.00754
Newport News city	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.1	Portable Fuel Containers	0.23708	0.23708	0.24598	0.27178
Newport News city	3.4.1	Tank Truck in Transit	0.00518	0.00520	0.00536	0.00532
Newport News city	3.4.1	Tank Truck Loading/Unloading	0.30130	0.30280	0.31174	0.30957
Newport News city	3.4.1	UST Breathing	0.13919	0.13988	0.14401	0.14300
Newport News city	3.4.1	Vehicle Refueling and Spillage	0.74030	0.53847	0.26944	0.16774
Newport News city	3.4.2	Asphalt Paving	0.00001	0.00001	0.00001	0.00002
Newport News city	3.4.2	Asphalt Roofing	0.00050	0.00054	0.00065	0.00075
Newport News city	3.4.2	Commercial/Consumer Solvent Use	1.76250	1.85174	2.00115	2.16856

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Newport News city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.2	Graphic Arts	0.28065	0.29060	0.30890	0.36495
Newport News city	3.4.2	Industrial Adhesives	0.15601	0.17253	0.21281	0.26020
Newport News city	3.4.2	Lane Markings	0.14019	0.14089	0.14504	0.14403
Newport News city	3.4.2	Pesticide	0.88064	0.92523	0.99988	1.08353
Newport News city	3.4.2	Surface Cleaning	0.93700	1.10212	1.44096	1.71817
Newport News city	3.4.2	Surface Coating	2.50375	2.83328	3.62229	4.25893
Newport News city	3.4.3	Bakery	0.09054	0.09248	0.09816	0.10563
Newport News city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.4.a	Landfills	0.00049	0.00051	0.00056	0.00064
Newport News city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.4.a	TSDF	0.02627	0.02727	0.02988	0.03455
Newport News city	3.4.4.b	On-Site Incineration	0.22778	0.24986	0.30232	0.35989
Newport News city	3.4.4.b	Open Burning	0.01130	0.01232	0.01471	0.01694
Newport News city	3.4.5	Commercial Fuel Consumption, Coal	0.00279	0.00297	0.00293	0.00292
Newport News city	3.4.5	Commercial Fuel Consumption, Distillate	0.00123	0.00144	0.00162	0.00180
Newport News city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00032	0.00034	0.00034	0.00035
Newport News city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00690	0.00717	0.00857	0.00977
Newport News city	3.4.5	Commercial Fuel Consumption, Residual	0.00039	0.00059	0.00062	0.00064
Newport News city	3.4.5	Commercial Fuel Consumption, Wood	0.00004	0.00004	0.00004	0.00004
Newport News city	3.4.5	Industrial Fuel Consumption, Coal	0.41343	0.39532	0.39825	0.40736
Newport News city	3.4.5	Industrial Fuel Consumption, Distillate	0.00443	0.00441	0.00458	0.00507
Newport News city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00223	0.00221	0.00239	0.00263
Newport News city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.02964	0.03194	0.03481	0.03757
Newport News city	3.4.5	Industrial Fuel Consumption, Residual	0.00148	0.00151	0.00151	0.00164
Newport News city	3.4.5	Industrial Fuel Consumption, Wood	0.08182	0.08668	0.09639	0.10958
Newport News city	3.4.5	Residential Fuel Consumption, Coal	0.00094	0.00096	0.00092	0.00088
Newport News city	3.4.5	Residential Fuel Consumption, Distillate	0.00161	0.00160	0.00151	0.00133
Newport News city	3.4.5	Residential Fuel Consumption, LP Gas	0.00067	0.00066	0.00072	0.00078
Newport News city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00529	0.00572	0.00653	0.00717
Newport News city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.6	Forest Wildfires	0.00115	0.00115	0.00115	0.00115
Newport News city	3.4.6	Leaking U.S.T.	0.00007	0.00007	0.00007	0.00007
Newport News city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.6	Structural Fires	0.00652	0.00740	0.00851	0.00894
Newport News city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Commercial Marine Vessels	0.05457	0.05616	0.06047	0.06587
Newport News city	3.4.7	Locomotive	0.01758	0.01523	0.01278	0.01107
Newport News city	3.4.7	Military Marine Vessels	0.07908	0.03954	0.03954	0.03954

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Newport News city	3.4.8	Off-Road, Modeled, 2-Stroke	0.76254	0.50573	0.29718	0.33054
Newport News city	3.4.8	Off-Road, Modeled, 4-Stroke	1.19409	1.15179	0.97169	1.02337
Newport News city	3.4.8	Off-Road, Modeled, CNG	0.00519	0.00498	0.00391	0.00253
Newport News city	3.4.8	Off-Road, Modeled, Diesel	0.19723	0.17737	0.13284	0.09119
Newport News city	3.4.8	Off-Road, Modeled, LPG	0.34912	0.31825	0.12910	0.02999
Newport News city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.34911	0.31244	0.23837	0.19867
Newport News city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.07169	0.07250	0.07326	0.07438
Newport News city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00109	0.00117	0.00119	0.00117
Newport News city	3.4.8	Railroads	0.00045	0.00043	0.00036	0.00028
Newport News city	**3.4.8**	**TOTAL**	**12.08801**	**12.13575**	**12.69233**	**13.89003**
Norfolk city	3.4.1	Aircraft Refueling	0.64474	0.71137	0.87726	1.04154
Norfolk city	3.4.1	Petroleum Vessel Ballasting	0.23022	0.23837	0.24171	0.23635
Norfolk city	3.4.1	Petroleum Vessel in Transit	0.35702	0.37941	0.42056	0.46935
Norfolk city	3.4.1	Petroleum Vessel Loading/Unloading	0.32846	0.33025	0.33991	0.33747
Norfolk city	3.4.1	Portable Fuel Containers	0.38875	0.38875	0.41187	0.46068
Norfolk city	3.4.1	Tank Truck in Transit	0.00672	0.00675	0.00695	0.00690
Norfolk city	3.4.1	Tank Truck Loading/Unloading	0.39109	0.39304	0.40463	0.40182
Norfolk city	3.4.1	UST Breathing	0.18067	0.18157	0.18692	0.18562
Norfolk city	3.4.1	Vehicle Refueling and Spillage	0.99795	0.75881	0.36196	0.21433
Norfolk city	3.4.2	Asphalt Paving	0.00007	0.00007	0.00008	0.00010
Norfolk city	3.4.2	Asphalt Roofing	0.00102	0.00111	0.00133	0.00153
Norfolk city	3.4.2	Commercial/Consumer Solvent Use	2.21837	2.33068	2.51874	2.72944
Norfolk city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.2	Graphic Arts	0.35324	0.36576	0.38879	0.45934
Norfolk city	3.4.2	Industrial Adhesives	0.24854	0.27487	0.33903	0.41452
Norfolk city	3.4.2	Lane Markings	0.17644	0.17732	0.18255	0.18128
Norfolk city	3.4.2	Pesticide	1.10790	1.16399	1.25791	1.36314
Norfolk city	3.4.2	Surface Cleaning	0.63073	0.73371	0.96057	1.12267
Norfolk city	3.4.2	Surface Coating	3.07037	3.41936	4.14259	4.91709
Norfolk city	3.4.3	Bakery	0.11395	0.11640	0.12355	0.13295
Norfolk city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.4.a	TSDF	0.00028	0.00029	0.00032	0.00037
Norfolk city	3.4.4.b	On-Site Incineration	0.17352	0.18933	0.22614	0.26423
Norfolk city	3.4.4.b	Open Burning	0.01130	0.01232	0.01471	0.01694
Norfolk city	3.4.5	Commercial Fuel Consumption, Coal	0.00528	0.00562	0.00555	0.00552
Norfolk city	3.4.5	Commercial Fuel Consumption, Distillate	0.00232	0.00272	0.00307	0.00339
Norfolk city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00061	0.00064	0.00065	0.00067
Norfolk city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.01305	0.01356	0.01620	0.01847
Norfolk city	3.4.5	Commercial Fuel Consumption, Residual	0.00073	0.00112	0.00117	0.00122

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Norfolk city	3.4.5	Commercial Fuel Consumption, Wood	0.00007	0.00007	0.00007	0.00007
Norfolk city	3.4.5	Industrial Fuel Consumption, Coal	0.21551	0.20607	0.20760	0.21235
Norfolk city	3.4.5	Industrial Fuel Consumption, Distillate	0.00231	0.00230	0.00239	0.00264
Norfolk city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00116	0.00115	0.00124	0.00137
Norfolk city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.01545	0.01665	0.01815	0.01959
Norfolk city	3.4.5	Industrial Fuel Consumption, Residual	0.00077	0.00079	0.00079	0.00086
Norfolk city	3.4.5	Industrial Fuel Consumption, Wood	0.04265	0.04518	0.05025	0.05712
Norfolk city	3.4.5	Residential Fuel Consumption, Coal	0.00119	0.00121	0.00116	0.00111
Norfolk city	3.4.5	Residential Fuel Consumption, Distillate	0.00202	0.00202	0.00190	0.00167
Norfolk city	3.4.5	Residential Fuel Consumption, LP Gas	0.00084	0.00083	0.00091	0.00099
Norfolk city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00666	0.00720	0.00821	0.00903
Norfolk city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Leaking U.S.T.	0.00011	0.00011	0.00011	0.00011
Norfolk city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Structural Fires	0.00962	0.01092	0.01256	0.01319
Norfolk city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.7	Aviation Emissions, Commercial	0.11364	0.12538	0.15462	0.18358
Norfolk city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.7	Aviation Emissions, Military	0.24992	0.28176	0.30513	0.34799
Norfolk city	3.4.7	Commercial Marine Vessels	0.17524	0.18047	0.19451	0.21400
Norfolk city	3.4.7	Locomotive	0.04779	0.04138	0.03473	0.03009
Norfolk city	3.4.7	Military Marine Vessels	0.10423	0.07385	0.07385	0.07385
Norfolk city	3.4.8	Off-Road, Modeled, 2-Stroke	1.33041	0.87296	0.51744	0.57314
Norfolk city	3.4.8	Off-Road, Modeled, 4-Stroke	1.89363	1.84034	1.55737	1.67029
Norfolk city	3.4.8	Off-Road, Modeled, CNG	0.00252	0.00234	0.00181	0.00118
Norfolk city	3.4.8	Off-Road, Modeled, Diesel	0.52052	0.46802	0.35512	0.24560
Norfolk city	3.4.8	Off-Road, Modeled, LPG	0.16652	0.15251	0.06419	0.01690
Norfolk city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.74120	0.66397	0.50654	0.42218
Norfolk city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.08451	0.08542	0.08631	0.08762
Norfolk city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00129	0.00139	0.00141	0.00139
Norfolk city	3.4.8	Railroads	0.00023	0.00022	0.00018	0.00014
Norfolk city	**3.4.8**	**TOTAL**	**17.38335**	**17.28172**	**17.59325**	**19.17501**
Poquoson city	3.4.1	Aircraft Refueling	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	Portable Fuel Containers	0.03665	0.03665	0.03835	0.04255
Poquoson city	3.4.1	Tank Truck in Transit	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	Tank Truck Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	UST Breathing	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.1	Vehicle Refueling and Spillage	0.02154	0.01515	0.00730	0.00453
Poquoson city	3.4.2	Asphalt Paving	0.00000	0.00000	0.00000	0.00000

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Poquoson city	3.4.2	Asphalt Roofing	0.00003	0.00003	0.00003	0.00004
Poquoson city	3.4.2	Commercial/Consumer Solvent Use	0.11298	0.11870	0.12828	0.13901
Poquoson city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.2	Graphic Arts	0.02921	0.03024	0.01980	0.02339
Poquoson city	3.4.2	Industrial Adhesives	0.00160	0.00176	0.00218	0.00266
Poquoson city	3.4.2	Lane Markings	0.00899	0.00903	0.00930	0.00923
Poquoson city	3.4.2	Pesticide	0.06255	0.06572	0.07102	0.07696
Poquoson city	3.4.2	Surface Cleaning	0.01302	0.01504	0.00836	0.00965
Poquoson city	3.4.2	Surface Coating	0.09777	0.11009	0.13684	0.15980
Poquoson city	3.4.3	Bakery	0.00580	0.00593	0.00629	0.00677
Poquoson city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.4.a	TSDF	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.4.b	On-Site Incineration	0.00618	0.00671	0.00790	0.00903
Poquoson city	3.4.4.b	Open Burning	0.05648	0.06161	0.01471	0.01694
Poquoson city	3.4.5	Commercial Fuel Consumption, Coal	0.00007	0.00007	0.00007	0.00007
Poquoson city	3.4.5	Commercial Fuel Consumption, Distillate	0.00003	0.00004	0.00004	0.00004
Poquoson city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00001	0.00001	0.00001	0.00001
Poquoson city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00017	0.00018	0.00021	0.00024
Poquoson city	3.4.5	Commercial Fuel Consumption, Residual	0.00001	0.00001	0.00002	0.00002
Poquoson city	3.4.5	Commercial Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.5	Industrial Fuel Consumption, Coal	0.00028	0.00027	0.00027	0.00028
Poquoson city	3.4.5	Industrial Fuel Consumption, Distillate	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00002	0.00002	0.00002	0.00003
Poquoson city	3.4.5	Industrial Fuel Consumption, Residual	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.5	Industrial Fuel Consumption, Wood	0.00006	0.00006	0.00007	0.00008
Poquoson city	3.4.5	Residential Fuel Consumption, Coal	0.00006	0.00006	0.00006	0.00006
Poquoson city	3.4.5	Residential Fuel Consumption, Distillate	0.00010	0.00010	0.00010	0.00008
Poquoson city	3.4.5	Residential Fuel Consumption, LP Gas	0.00004	0.00004	0.00005	0.00005
Poquoson city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00034	0.00037	0.00042	0.00046
Poquoson city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Leaking U.S.T.	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Structural Fires	0.00052	0.00059	0.00068	0.00071
Poquoson city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Commercial Marine Vessels	0.00000	0.00000	0.00000	0.00000

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Poquoson city	3.4.7	Locomotive	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Military Marine Vessels	0.00231	0.00154	0.00154	0.00154
Poquoson city	3.4.8	Off-Road, Modeled, 2-Stroke	0.14625	0.09460	0.05638	0.06327
Poquoson city	3.4.8	Off-Road, Modeled, 4-Stroke	0.14927	0.14420	0.11684	0.12574
Poquoson city	3.4.8	Off-Road, Modeled, CNG	0.00001	0.00001	0.00000	0.00000
Poquoson city	3.4.8	Off-Road, Modeled, Diesel	0.00349	0.00319	0.00247	0.00185
Poquoson city	3.4.8	Off-Road, Modeled, LPG	0.00072	0.00065	0.00029	0.00011
Poquoson city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.50207	0.44904	0.34266	0.28559
Poquoson city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.08737	0.08851	0.08932	0.09068
Poquoson city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00133	0.00143	0.00145	0.00143
Poquoson city	3.4.8	Railroads	0.00000	0.00000	0.00000	0.00000
Poquoson city	**3.4.8**	**TOTAL**	**1.34732**	**1.26168**	**1.06333**	**1.07291**
Portsmouth city	3.4.1	Aircraft Refueling	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.1	Petroleum Vessel Ballasting	0.18790	0.19551	0.19776	0.19288
Portsmouth city	3.4.1	Petroleum Vessel in Transit	0.26344	0.27997	0.31033	0.34633
Portsmouth city	3.4.1	Petroleum Vessel Loading/Unloading	0.24082	0.24217	0.24923	0.24742
Portsmouth city	3.4.1	Portable Fuel Containers	0.11901	0.11901	0.13090	0.14605
Portsmouth city	3.4.1	Tank Truck in Transit	0.00329	0.00331	0.00341	0.00339
Portsmouth city	3.4.1	Tank Truck Loading/Unloading	0.19174	0.19269	0.19838	0.19700
Portsmouth city	3.4.1	UST Breathing	0.08857	0.08902	0.09164	0.09100
Portsmouth city	3.4.1	Vehicle Refueling and Spillage	0.30452	0.23679	0.11663	0.06587
Portsmouth city	3.4.2	Asphalt Paving	0.00003	0.00003	0.00004	0.00005
Portsmouth city	3.4.2	Asphalt Roofing	0.00020	0.00022	0.00027	0.00031
Portsmouth city	3.4.2	Commercial/Consumer Solvent Use	0.96625	1.01517	1.09708	1.18886
Portsmouth city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.2	Graphic Arts	0.15386	0.15931	0.16935	0.20008
Portsmouth city	3.4.2	Industrial Adhesives	0.06021	0.06658	0.08213	0.10042
Portsmouth city	3.4.2	Lane Markings	0.07685	0.07724	0.07951	0.07896
Portsmouth city	3.4.2	Pesticide	0.51636	0.54250	0.58627	0.63532
Portsmouth city	3.4.2	Surface Cleaning	0.36324	0.42758	0.55886	0.66710
Portsmouth city	3.4.2	Surface Coating	1.14556	1.28038	1.58143	1.84829
Portsmouth city	3.4.3	Bakery	0.04963	0.05070	0.05382	0.05791
Portsmouth city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.4.a	TSDF	0.00015	0.00015	0.00017	0.00019
Portsmouth city	3.4.4.b	On-Site Incineration	0.10643	0.11659	0.14058	0.16654
Portsmouth city	3.4.4.b	Open Burning	0.01130	0.01232	0.01471	0.01694
Portsmouth city	3.4.5	Commercial Fuel Consumption, Coal	0.00122	0.00130	0.00129	0.00128
Portsmouth city	3.4.5	Commercial Fuel Consumption, Distillate	0.00054	0.00063	0.00071	0.00079
Portsmouth city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00014	0.00015	0.00015	0.00016

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Portsmouth city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00302	0.00314	0.00375	0.00428
Portsmouth city	3.4.5	Commercial Fuel Consumption, Residual	0.00017	0.00026	0.00027	0.00028
Portsmouth city	3.4.5	Commercial Fuel Consumption, Wood	0.00002	0.00002	0.00002	0.00002
Portsmouth city	3.4.5	Industrial Fuel Consumption, Coal	0.16921	0.16180	0.16300	0.16672
Portsmouth city	3.4.5	Industrial Fuel Consumption, Distillate	0.00181	0.00181	0.00188	0.00208
Portsmouth city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00091	0.00090	0.00098	0.00108
Portsmouth city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.01213	0.01307	0.01425	0.01538
Portsmouth city	3.4.5	Industrial Fuel Consumption, Residual	0.00061	0.00062	0.00062	0.00067
Portsmouth city	3.4.5	Industrial Fuel Consumption, Wood	0.03349	0.03547	0.03945	0.04485
Portsmouth city	3.4.5	Residential Fuel Consumption, Coal	0.00052	0.00053	0.00051	0.00049
Portsmouth city	3.4.5	Residential Fuel Consumption, Distillate	0.00088	0.00088	0.00083	0.00073
Portsmouth city	3.4.5	Residential Fuel Consumption, LP Gas	0.00037	0.00036	0.00040	0.00043
Portsmouth city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00290	0.00313	0.00358	0.00393
Portsmouth city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Leaking U.S.T.	0.00004	0.00004	0.00004	0.00004
Portsmouth city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Structural Fires	0.01015	0.01152	0.01325	0.01392
Portsmouth city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Commercial Marine Vessels	0.09896	0.10193	0.10989	0.12126
Portsmouth city	3.4.7	Locomotive	0.02390	0.02069	0.01736	0.01505
Portsmouth city	3.4.7	Military Marine Vessels	0.00423	0.00308	0.00308	0.00308
Portsmouth city	3.4.8	Off-Road, Modeled, 2-Stroke	0.41499	0.35303	0.27051	0.22738
Portsmouth city	3.4.8	Off-Road, Modeled, 4-Stroke	0.56918	0.56532	0.50884	0.53785
Portsmouth city	3.4.8	Off-Road, Modeled, CNG	0.00051	0.00047	0.00036	0.00024
Portsmouth city	3.4.8	Off-Road, Modeled, Diesel	0.01855	0.01663	0.01256	0.00860
Portsmouth city	3.4.8	Off-Road, Modeled, LPG	0.03250	0.02975	0.01254	0.00330
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.45793	0.41001	0.31286	0.26076
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.03633	0.03677	0.03713	0.03770
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00056	0.00060	0.00061	0.00060
Portsmouth city	3.4.8	Railroads	0.00008	0.00007	0.00006	0.00005
Portsmouth city	**3.4.8**	**TOTAL**	**6.74523**	**6.88124**	**7.19325**	**7.72386**
Suffolk city	3.4.1	Aircraft Refueling	0.00157	0.00173	0.00214	0.00254
Suffolk city	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.1	Portable Fuel Containers	0.09499	0.09499	0.10569	0.11811
Suffolk city	3.4.1	Tank Truck in Transit	0.00279	0.00280	0.00288	0.00286
Suffolk city	3.4.1	Tank Truck Loading/Unloading	0.16210	0.16291	0.16771	0.16654
Suffolk city	3.4.1	UST Breathing	0.07488	0.07526	0.07748	0.07694

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Suffolk city	3.4.1	Vehicle Refueling and Spillage	0.40408	0.32224	0.15993	0.09998
Suffolk city	3.4.2	Asphalt Paving	0.00107	0.00116	0.00139	0.00160
Suffolk city	3.4.2	Asphalt Roofing	0.00016	0.00017	0.00021	0.00024
Suffolk city	3.4.2	Commercial/Consumer Solvent Use	0.64095	0.67340	0.72774	0.78862
Suffolk city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.2	Graphic Arts	0.10206	0.10568	0.11233	0.13272
Suffolk city	3.4.2	Industrial Adhesives	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.2	Lane Markings	0.05098	0.05123	0.05275	0.05238
Suffolk city	3.4.2	Pesticide	0.62380	0.66937	0.75812	0.84324
Suffolk city	3.4.2	Surface Cleaning	0.14205	0.16444	0.21534	0.24935
Suffolk city	3.4.2	Surface Coating	1.36598	1.50726	1.86093	2.16179
Suffolk city	3.4.3	Bakery	0.03292	0.03363	0.03570	0.03841
Suffolk city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.4.a	Landfills	0.00011	0.00011	0.00013	0.00014
Suffolk city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.4.a	TSDF	0.00003	0.00003	0.00003	0.00003
Suffolk city	3.4.4.b	On-Site Incineration	0.04712	0.05137	0.06123	0.07132
Suffolk city	3.4.4.b	Open Burning	0.01130	0.01232	0.01471	0.01694
Suffolk city	3.4.5	Commercial Fuel Consumption, Coal	0.00072	0.00076	0.00075	0.00075
Suffolk city	3.4.5	Commercial Fuel Consumption, Distillate	0.00031	0.00037	0.00042	0.00046
Suffolk city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00008	0.00009	0.00009	0.00009
Suffolk city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00177	0.00184	0.00220	0.00251
Suffolk city	3.4.5	Commercial Fuel Consumption, Residual	0.00010	0.00015	0.00016	0.00017
Suffolk city	3.4.5	Commercial Fuel Consumption, Wood	0.00001	0.00001	0.00001	0.00001
Suffolk city	3.4.5	Industrial Fuel Consumption, Coal	0.03911	0.03740	0.03768	0.03854
Suffolk city	3.4.5	Industrial Fuel Consumption, Distillate	0.00042	0.00042	0.00043	0.00048
Suffolk city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00021	0.00021	0.00023	0.00025
Suffolk city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00280	0.00302	0.00329	0.00355
Suffolk city	3.4.5	Industrial Fuel Consumption, Residual	0.00014	0.00014	0.00014	0.00016
Suffolk city	3.4.5	Industrial Fuel Consumption, Wood	0.00774	0.00820	0.00912	0.01037
Suffolk city	3.4.5	Residential Fuel Consumption, Coal	0.00034	0.00035	0.00034	0.00032
Suffolk city	3.4.5	Residential Fuel Consumption, Distillate	0.00058	0.00058	0.00055	0.00048
Suffolk city	3.4.5	Residential Fuel Consumption, LP Gas	0.00024	0.00024	0.00026	0.00028
Suffolk city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00192	0.00208	0.00237	0.00261
Suffolk city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.6	Forest Wildfires	0.01860	0.01860	0.01860	0.01860
Suffolk city	3.4.6	Leaking U.S.T.	0.00005	0.00005	0.00005	0.00005
Suffolk city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.6	Structural Fires	0.00276	0.00313	0.00360	0.00378
Suffolk city	3.4.7	Aviation Emissions, Air Taxi	0.00044	0.00049	0.00060	0.00071
Suffolk city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Aviation Emissions, General Aviation	0.00243	0.00268	0.00331	0.00393

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Suffolk city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Commercial Marine Vessels	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Locomotive	0.02705	0.02342	0.01966	0.01703
Suffolk city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.8	Off-Road, Modeled, 2-Stroke	0.42222	0.36185	0.27747	0.23429
Suffolk city	3.4.8	Off-Road, Modeled, 4-Stroke	0.48602	0.47745	0.42425	0.44553
Suffolk city	3.4.8	Off-Road, Modeled, CNG	0.00043	0.00040	0.00030	0.00020
Suffolk city	3.4.8	Off-Road, Modeled, Diesel	0.20344	0.18046	0.13450	0.09204
Suffolk city	3.4.8	Off-Road, Modeled, LPG	0.02827	0.02585	0.01096	0.00294
Suffolk city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.04659	0.93681	0.71511	0.59602
Suffolk city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.06776	0.06863	0.06925	0.07030
Suffolk city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00105	0.00113	0.00114	0.00112
Suffolk city	3.4.8	Railroads	0.00166	0.00158	0.00132	0.00103
Suffolk city	**3.4.8**	**TOTAL**	**6.12422**	**6.08852**	**6.09456**	**6.37233**
Virginia Beach city	3.4.1	Aircraft Refueling	1.28233	1.41487	1.74480	2.07155
Virginia Beach city	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.1	Portable Fuel Containers	0.81175	0.81175	0.90172	1.00901
Virginia Beach city	3.4.1	Tank Truck in Transit	0.01514	0.01522	0.01567	0.01556
Virginia Beach city	3.4.1	Tank Truck Loading/Unloading	0.88110	0.88549	0.91161	0.90526
Virginia Beach city	3.4.1	UST Breathing	0.40703	0.40906	0.42112	0.41819
Virginia Beach city	3.4.1	Vehicle Refueling and Spillage	1.28630	0.98580	0.43794	0.27319
Virginia Beach city	3.4.2	Asphalt Paving	0.00026	0.00028	0.00033	0.00038
Virginia Beach city	3.4.2	Asphalt Roofing	0.00145	0.00158	0.00189	0.00217
Virginia Beach city	3.4.2	Commertial/Consumer Solvent Use	4.17801	4.38954	4.74372	5.14055
Virginia Beach city	3.4.2	Drycleaing	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.2	Grapic Arts	0.66529	0.68888	0.73225	0.86513
Virginia Beach city	3.4.2	Industrial Adhesives	0.33913	0.37505	0.46261	0.56561
Virginia Beach city	3.4.2	Lane Markings	0.33231	0.33397	0.34382	0.34142
Virginia Beach city	3.4.2	Pesticide	2.27036	2.39081	2.59737	2.82318
Virginia Beach city	3.4.2	Surface Cleaning	0.86235	0.99877	1.30868	1.51784
Virginia Beach city	3.4.2	Surface Coating	4.83510	5.42801	6.77117	7.91851
Virginia Beach city	3.4.3	Bakery	0.21462	0.21923	0.23269	0.25039
Virginia Beach city	3.4.3	Breweries	0.00513	0.00519	0.00540	0.00566
Virginia Beach city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.4.a	Landfills	0.00192	0.00199	0.00218	0.00253
Virginia Beach city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.4.a	TSDF	0.00090	0.00093	0.00102	0.00118
Virginia Beach city	3.4.4.b	On-Site Incineration	0.26026	0.28299	0.33513	0.38665
Virginia Beach city	3.4.4.b	Open Burning	0.05205	0.05678	0.06778	0.07807
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Coal	0.00655	0.00697	0.00688	0.00685

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Distillate	0.00288	0.00337	0.00381	0.00421
Virginia Beach city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00075	0.00080	0.00080	0.00083
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.01619	0.01682	0.02009	0.02291
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Residual	0.00091	0.00139	0.00145	0.00151
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Wood	0.00009	0.00009	0.00009	0.00009
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Coal	0.10882	0.10406	0.10483	0.10722
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Distillate	0.00116	0.00116	0.00121	0.00134
Virginia Beach city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00059	0.00058	0.00063	0.00069
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00780	0.00841	0.00916	0.00989
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Residual	0.00039	0.00040	0.00040	0.00043
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Wood	0.02154	0.02281	0.02537	0.02884
Virginia Beach city	3.4.5	Residential Fuel Consumption, Coal	0.00224	0.00228	0.00219	0.00210
Virginia Beach city	3.4.5	Residential Fuel Consumption, Distillate	0.00381	0.00380	0.00357	0.00314
Virginia Beach city	3.4.5	Residential Fuel Consumption, LP Gas	0.00158	0.00156	0.00171	0.00186
Virginia Beach city	3.4.5	Residential Fuel Consumption, Nat Gas	0.01253	0.01356	0.01547	0.01700
Virginia Beach city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Leaking U.S.T.	0.00012	0.00012	0.00012	0.00012
Virginia Beach city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Structural Fires	0.01007	0.01143	0.01315	0.01381
Virginia Beach city	3.4.7	Aviation Emissions, Air Taxi	0.03554	0.03921	0.04836	0.05741
Virginia Beach city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.7	Aviation Emissions, General Aviation	0.01146	0.01264	0.01559	0.01851
Virginia Beach city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.7	Commercial Marine Vessels	0.01805	0.01857	0.01998	0.02162
Virginia Beach city	3.4.7	Locomotive	0.00225	0.00195	0.00164	0.00142
Virginia Beach city	3.4.7	Military Marine Vessels	0.08615	0.06115	0.06115	0.06115
Virginia Beach city	3.4.8	Off-Road, Modeled, 2-Stroke	3.47891	2.89832	2.21917	1.87690
Virginia Beach city	3.4.8	Off-Road, Modeled, 4-Stroke	3.66835	3.62370	3.14223	3.33031
Virginia Beach city	3.4.8	Off-Road, Modeled, CNG	0.00168	0.00148	0.00111	0.00074
Virginia Beach city	3.4.8	Off-Road, Modeled, Diesel	0.55409	0.49758	0.37754	0.26165
Virginia Beach city	3.4.8	Off-Road, Modeled, LPG	0.10680	0.09809	0.04320	0.01300
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	4.12315	3.68878	2.81575	2.34681
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.44631	0.45090	0.45564	0.46257
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00684	0.00735	0.00742	0.00732
Virginia Beach city	3.4.8	Railroads	0.00002	0.00002	0.00001	0.00001
Virginia Beach city	**3.4.8**	**TOTAL**	**31.44043**	**31.29558**	**31.45863**	**33.27431**
Williamsburg city	3.4.1	Aircraft Refueling	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.1	Portable Fuel Containers	0.04186	0.04186	0.04968	0.05575
Williamsburg city	3.4.1	Tank Truck in Transit	0.00105	0.00106	0.00109	0.00108

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	Chapter	Category Description	2002	2005	2011	2018
Williamsburg city	3.4.1	Tank Truck Loading/Unloading	0.06127	0.06158	0.06340	0.06296
Williamsburg city	3.4.1	UST Breathing	0.02831	0.02845	0.02929	0.02908
Williamsburg city	3.4.1	Vehicle Refueling and Spillage	0.04176	0.02976	0.01263	0.00790
Williamsburg city	3.4.2	Asphalt Paving	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.2	Asphalt Roofing	0.00003	0.00003	0.00004	0.00005
Williamsburg city	3.4.2	Commercial/Consumer Solvent Use	0.11696	0.12289	0.13280	0.14391
Williamsburg city	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.2	Graphic Arts	0.03024	0.03131	0.02050	0.02422
Williamsburg city	3.4.2	Industrial Adhesives	0.05097	0.05637	0.06952	0.08500
Williamsburg city	3.4.2	Lane Markings	0.00930	0.00935	0.00963	0.00956
Williamsburg city	3.4.2	Pesticide	0.05317	0.05586	0.06037	0.06542
Williamsburg city	3.4.2	Surface Cleaning	0.09212	0.10637	0.05895	0.06794
Williamsburg city	3.4.2	Surface Coating	0.10241	0.11510	0.14216	0.16631
Williamsburg city	3.4.3	Bakery	0.00601	0.00614	0.00651	0.00701
Williamsburg city	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.3	Wineries	0.00002	0.00002	0.00002	0.00002
Williamsburg city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.4.a	TSDF	0.00603	0.00627	0.00686	0.00794
Williamsburg city	3.4.4.b	On-Site Incineration	0.00696	0.00756	0.00894	0.01028
Williamsburg city	3.4.4.b	Open Burning	0.02837	0.03094	0.00739	0.00851
Williamsburg city	3.4.5	Commercial Fuel Consumption, Coal	0.00090	0.00096	0.00095	0.00094
Williamsburg city	3.4.5	Commercial Fuel Consumption, Distillate	0.00040	0.00046	0.00052	0.00058
Williamsburg city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00010	0.00011	0.00011	0.00011
Williamsburg city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00223	0.00232	0.00277	0.00315
Williamsburg city	3.4.5	Commercial Fuel Consumption, Residual	0.00013	0.00019	0.00020	0.00021
Williamsburg city	3.4.5	Commercial Fuel Consumption, Wood	0.00001	0.00001	0.00001	0.00001
Williamsburg city	3.4.5	Industrial Fuel Consumption, Coal	0.00203	0.00194	0.00196	0.00200
Williamsburg city	3.4.5	Industrial Fuel Consumption, Distillate	0.00002	0.00002	0.00002	0.00002
Williamsburg city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00001	0.00001	0.00001	0.00001
Williamsburg city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00015	0.00016	0.00017	0.00018
Williamsburg city	3.4.5	Industrial Fuel Consumption, Residual	0.00001	0.00001	0.00001	0.00001
Williamsburg city	3.4.5	Industrial Fuel Consumption, Wood	0.00040	0.00043	0.00047	0.00054
Williamsburg city	3.4.5	Residential Fuel Consumption, Coal	0.00006	0.00006	0.00006	0.00006
Williamsburg city	3.4.5	Residential Fuel Consumption, Distillate	0.00011	0.00011	0.00010	0.00009
Williamsburg city	3.4.5	Residential Fuel Consumption, LP Gas	0.00004	0.00004	0.00005	0.00005
Williamsburg city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00035	0.00038	0.00043	0.00048
Williamsburg city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Leaking U.S.T.	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Structural Fires	0.00061	0.00069	0.00079	0.00083
Williamsburg city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Williamsburg city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Commercial Marine Vessels	0.02099	0.02159	0.02323	0.02513
Williamsburg city	3.4.7	Locomotive	0.01127	0.00976	0.00819	0.00710
Williamsburg city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.8	Off-Road, Modeled, 2-Stroke	0.23664	0.23154	0.20015	0.14888
Williamsburg city	3.4.8	Off-Road, Modeled, 4-Stroke	0.17354	0.17461	0.15375	0.15997
Williamsburg city	3.4.8	Off-Road, Modeled, CNG	0.00005	0.00004	0.00003	0.00002
Williamsburg city	3.4.8	Off-Road, Modeled, Diesel	0.00435	0.00400	0.00311	0.00227
Williamsburg city	3.4.8	Off-Road, Modeled, LPG	0.00318	0.00292	0.00126	0.00037
Williamsburg city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.8	Railroads	0.00063	0.00060	0.00050	0.00039
Williamsburg city	**3.4.8**	**TOTAL**	**1.13505**	**1.16387**	**1.07865**	**1.10637**
York County	3.4.1	Aircraft Refueling	0.64940	0.71652	0.88361	1.04908
York County	3.4.1	Petroleum Vessel Ballasting	0.00000	0.00000	0.00000	0.00000
York County	3.4.1	Petroleum Vessel in Transit	0.00000	0.00000	0.00000	0.00000
York County	3.4.1	Petroleum Vessel Loading/Unloading	0.00000	0.00000	0.00000	0.00000
York County	3.4.1	Portable Fuel Containers	0.31055	0.31055	0.33668	0.37532
York County	3.4.1	Tank Truck in Transit	0.00233	0.00234	0.00241	0.00239
York County	3.4.1	Tank Truck Loading/Unloading	0.13549	0.13616	0.14018	0.13920
York County	3.4.1	UST Breathing	0.06259	0.06290	0.06476	0.06430
York County	3.4.1	Vehicle Refueling and Spillage	0.31126	0.25613	0.12298	0.08015
York County	3.4.2	Asphalt Paving	0.00042	0.00046	0.00051	0.00059
York County	3.4.2	Asphalt Roofing	0.00029	0.00032	0.00038	0.00043
York County	3.4.2	Commercial/Consumer Solvent Use	0.57616	0.60533	0.65418	0.70890
York County	3.4.2	Dry cleaning	0.00000	0.00000	0.00000	0.00000
York County	3.4.2	Graphic Arts	0.14894	0.15422	0.10098	0.11930
York County	3.4.2	Industrial Adhesives	0.02559	0.02830	0.03491	0.04268
York County	3.4.2	Lane Markings	0.04583	0.04606	0.04741	0.04708
York County	3.4.2	Pesticide	0.29335	0.30856	0.33436	0.36290
York County	3.4.2	Surface Cleaning	0.23801	0.27533	0.15384	0.17823
York County	3.4.2	Surface Coating	1.09964	1.21085	1.47079	1.70672
York County	3.4.3	Bakery	0.02960	0.03023	0.03209	0.03453
York County	3.4.3	Breweries	0.00000	0.00000	0.00000	0.00000
York County	3.4.3	Distilleries	0.00000	0.00000	0.00000	0.00000
York County	3.4.3	Wineries	0.00000	0.00000	0.00000	0.00000
York County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
York County	3.4.4.a	POTWs	0.00000	0.00000	0.00000	0.00000
York County	3.4.4.a	TSDF	0.00060	0.00063	0.00069	0.00079
York County	3.4.4.b	On-Site Incineration	0.03392	0.03685	0.04353	0.05004

Table 7.2-4						
Combined Area and Nonroad Mobile Source VOC Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
York County	3.4.4.b	Open Burning	0.05648	0.06161	0.01471	0.01694
York County	3.4.5	Commercial Fuel Consumption, Coal	0.00060	0.00064	0.00063	0.00063
York County	3.4.5	Commercial Fuel Consumption, Distillate	0.00027	0.00031	0.00035	0.00039
York County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00007	0.00007	0.00007	0.00008
York County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00149	0.00155	0.00185	0.00211
York County	3.4.5	Commercial Fuel Consumption, Residual	0.00008	0.00013	0.00013	0.00014
York County	3.4.5	Commercial Fuel Consumption, Wood	0.00001	0.00001	0.00001	0.00001
York County	3.4.5	Industrial Fuel Consumption, Coal	0.01227	0.01173	0.01182	0.01209
York County	3.4.5	Industrial Fuel Consumption, Distillate	0.00013	0.00013	0.00014	0.00015
York County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00007	0.00007	0.00007	0.00008
York County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00088	0.00095	0.00103	0.00111
York County	3.4.5	Industrial Fuel Consumption, Residual	0.00004	0.00004	0.00004	0.00005
York County	3.4.5	Industrial Fuel Consumption, Wood	0.00243	0.00257	0.00286	0.00325
York County	3.4.5	Residential Fuel Consumption, Coal	0.00031	0.00031	0.00030	0.00029
York County	3.4.5	Residential Fuel Consumption, Distillate	0.00053	0.00052	0.00049	0.00043
York County	3.4.5	Residential Fuel Consumption, LP Gas	0.00022	0.00021	0.00024	0.00026
York County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00173	0.00187	0.00213	0.00234
York County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
York County	3.4.6	Forest Wildfires	0.00060	0.00060	0.00060	0.00060
York County	3.4.6	Leaking U.S.T.	0.00002	0.00002	0.00002	0.00002
York County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
York County	3.4.6	Structural Fires	0.00104	0.00118	0.00136	0.00143
York County	3.4.7	Aviation Emissions, Air Taxi	0.01104	0.01218	0.01502	0.01783
York County	3.4.7	Aviation Emissions, Commercial	0.00392	0.00433	0.00533	0.00633
York County	3.4.7	Aviation Emissions, General Aviation	0.03811	0.04205	0.05185	0.06157
York County	3.4.7	Aviation Emissions, Military	0.00064	0.00072	0.00078	0.00089
York County	3.4.7	Commercial Marine Vessels	0.02099	0.02159	0.02323	0.02519
York County	3.4.7	Locomotive	0.01262	0.01093	0.00917	0.00795
York County	3.4.7	Military Marine Vessels	0.00654	0.00462	0.00462	0.00462
York County	3.4.8	Off-Road, Modeled, 2-Stroke	1.47475	1.11176	0.78646	0.73011
York County	3.4.8	Off-Road, Modeled, 4-Stroke	1.25594	1.22245	0.99379	1.05926
York County	3.4.8	Off-Road, Modeled, CNG	0.00017	0.00015	0.00012	0.00008
York County	3.4.8	Off-Road, Modeled, Diesel	0.10673	0.09650	0.07368	0.05226
York County	3.4.8	Off-Road, Modeled, LPG	0.01386	0.01262	0.00535	0.00159
York County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.52671	1.36635	1.04287	0.86919
York County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.18089	0.18266	0.18466	0.18747
York County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00276	0.00298	0.00301	0.00296
York County	3.4.8	Railroads	0.00063	0.00060	0.00050	0.00039
York County	**3.4.8**	**TOTAL**	**8.69954**	**8.35877**	**7.66361**	**8.03275**

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Chesapeake city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.4.b	On-Site Incineration	0.27118	0.29573	0.35278	0.41006
Chesapeake city	3.4.4.b	Open Burning	0.08323	0.09079	0.10838	0.12483
Chesapeake city	3.4.5	Commercial Fuel Consumption, Coal	0.02476	0.02635	0.02600	0.02590
Chesapeake city	3.4.5	Commercial Fuel Consumption, Distillate	0.01890	0.02213	0.02502	0.02766
Chesapeake city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00128	0.00136	0.00136	0.00141
Chesapeake city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.03966	0.04121	0.04924	0.05614
Chesapeake city	3.4.5	Commercial Fuel Consumption, Residual	0.00180	0.00276	0.00287	0.00298
Chesapeake city	3.4.5	Commercial Fuel Consumption, Wood	0.00175	0.00175	0.00175	0.00175
Chesapeake city	3.4.5	Industrial Fuel Consumption, Coal	1.23775	1.18355	1.19231	1.21957
Chesapeake city	3.4.5	Industrial Fuel Consumption, Distillate	0.02630	0.02622	0.02724	0.03015
Chesapeake city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00339	0.00336	0.00363	0.00400
Chesapeake city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.08859	0.09546	0.10406	0.11231
Chesapeake city	3.4.5	Industrial Fuel Consumption, Residual	0.00630	0.00641	0.00641	0.00697
Chesapeake city	3.4.5	Industrial Fuel Consumption, Wood	0.85587	0.90670	1.00831	1.14633
Chesapeake city	3.4.5	Residential Fuel Consumption, Coal	0.02996	0.03054	0.02933	0.02807
Chesapeake city	3.4.5	Residential Fuel Consumption, Distillate	0.01301	0.01296	0.01219	0.01073
Chesapeake city	3.4.5	Residential Fuel Consumption, LP Gas	0.00292	0.00288	0.00316	0.00343
Chesapeake city	3.4.5	Residential Fuel Consumption, Nat Gas	0.03361	0.03635	0.04148	0.04559
Chesapeake city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.6	Forest Wildfires	0.34315	0.34315	0.34315	0.34315
Chesapeake city	3.4.6	Prescribed Burning	0.12481	0.12481	0.12481	0.12481
Chesapeake city	3.4.6	Structural Fires	0.03535	0.04015	0.04615	0.04848
Chesapeake city	3.4.7	Aviation Emissions, Air Taxi	0.06560	0.07238	0.08926	0.10597
Chesapeake city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.7	Aviation Emissions, General Aviation	0.91583	1.01048	1.24612	1.47948
Chesapeake city	3.4.7	Aviation Emissions, Military	4.90712	5.53235	5.99118	6.83265
Chesapeake city	3.4.7	Commercial Marine Vessels	0.12963	0.13336	0.14346	0.15521
Chesapeake city	3.4.7	Locomotive	0.17609	0.15247	0.12796	0.11087
Chesapeake city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.8	Off-Road, Modeled, 2-Stroke	3.17604	2.83339	2.78617	3.10063
Chesapeake city	3.4.8	Off-Road, Modeled, 4-Stroke	48.58212	52.77675	59.28164	66.83869
Chesapeake city	3.4.8	Off-Road, Modeled, CNG	0.16907	0.16932	0.07628	0.03914
Chesapeake city	3.4.8	Off-Road, Modeled, Diesel	0.52728	0.49028	0.42824	0.26523
Chesapeake city	3.4.8	Off-Road, Modeled, LPG	1.27753	1.36061	0.81711	0.28154
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.88154	0.83112	0.73071	0.68655
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.20310	0.19579	0.17623	0.15534
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00174	0.00188	0.00215	0.00246
Chesapeake city	3.4.8	Railroads	0.00731	0.00759	0.00779	0.00762
Chesapeake city	**3.4.8**	**TOTAL**	**64.26356**	**68.86237**	**75.41393**	**83.83573**
Gloucester County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Gloucester County	3.4.4.b	On-Site Incineration	0.03976	0.04327	0.05133	0.05913
Gloucester County	3.4.4.b	Open Burning	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.5	Commercial Fuel Consumption, Coal	0.00299	0.00318	0.00314	0.00313
Gloucester County	3.4.5	Commercial Fuel Consumption, Distillate	0.00228	0.00267	0.00302	0.00334
Gloucester County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00015	0.00016	0.00016	0.00017
Gloucester County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00479	0.00497	0.00594	0.00677
Gloucester County	3.4.5	Commercial Fuel Consumption, Residual	0.00022	0.00033	0.00035	0.00036
Gloucester County	3.4.5	Commercial Fuel Consumption, Wood	0.00021	0.00021	0.00021	0.00021
Gloucester County	3.4.5	Industrial Fuel Consumption, Coal	0.07134	0.06822	0.06872	0.07029
Gloucester County	3.4.5	Industrial Fuel Consumption, Distillate	0.00152	0.00151	0.00157	0.00174
Gloucester County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00020	0.00019	0.00021	0.00023
Gloucester County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00511	0.00550	0.00600	0.00647
Gloucester County	3.4.5	Industrial Fuel Consumption, Residual	0.00036	0.00037	0.00037	0.00040
Gloucester County	3.4.5	Industrial Fuel Consumption, Wood	0.04933	0.05226	0.05812	0.06607
Gloucester County	3.4.5	Residential Fuel Consumption, Coal	0.00510	0.00520	0.00499	0.00478
Gloucester County	3.4.5	Residential Fuel Consumption, Distillate	0.00221	0.00221	0.00208	0.00183
Gloucester County	3.4.5	Residential Fuel Consumption, LP Gas	0.00050	0.00049	0.00054	0.00058
Gloucester County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00572	0.00619	0.00706	0.00776
Gloucester County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.6	Forest Wildfires	0.56899	0.56899	0.56899	0.56899
Gloucester County	3.4.6	Prescribed Burning	0.11824	0.11824	0.11824	0.11824
Gloucester County	3.4.6	Structural Fires	0.00236	0.00268	0.00309	0.00324
Gloucester County	3.4.7	Aviation Emissions, Air Taxi	0.00067	0.00074	0.00091	0.00108
Gloucester County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Aviation Emissions, General Aviation	0.00946	0.01044	0.01287	0.01528
Gloucester County	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Commercial Marine Vessels	0.10604	0.10909	0.11736	0.12697
Gloucester County	3.4.7	Locomotive	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Military Marine Vessels	0.01077	0.00769	0.00769	0.00769
Gloucester County	3.4.8	Off-Road, Modeled, 2-Stroke	0.85804	0.92182	1.05592	1.12751
Gloucester County	3.4.8	Off-Road, Modeled, 4-Stroke	7.97455	8.76925	9.99686	11.16444
Gloucester County	3.4.8	Off-Road, Modeled, CNG	0.01660	0.01599	0.00656	0.00382
Gloucester County	3.4.8	Off-Road, Modeled, Diesel	0.27710	0.24866	0.20979	0.11930
Gloucester County	3.4.8	Off-Road, Modeled, LPG	0.10134	0.10807	0.06644	0.02495
Gloucester County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	4.08354	3.84999	3.38485	3.18032
Gloucester County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	1.64314	1.58399	1.42580	1.25678
Gloucester County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.01209	0.01307	0.01499	0.01722
Gloucester County	**3.4.8**	**TOTAL**	**15.97472**	**16.52563**	**17.20417**	**17.96910**
Hampton city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.4.b	On-Site Incineration	0.20454	0.22325	0.26686	0.31120
Hampton city	3.4.4.b	Open Burning	0.08323	0.09079	0.10838	0.12483
Hampton city	3.4.5	Commercial Fuel Consumption, Coal	0.01883	0.02004	0.01978	0.01970

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Hampton city	3.4.5	Commercial Fuel Consumption, Distillate	0.01437	0.01683	0.01903	0.02103
Hampton city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00097	0.00103	0.00104	0.00107
Hampton city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.03017	0.03134	0.03745	0.04270
Hampton city	3.4.5	Commercial Fuel Consumption, Residual	0.00137	0.00210	0.00219	0.00227
Hampton city	3.4.5	Commercial Fuel Consumption, Wood	0.00133	0.00133	0.00133	0.00133
Hampton city	3.4.5	Industrial Fuel Consumption, Coal	1.14417	1.09406	1.10216	1.12736
Hampton city	3.4.5	Industrial Fuel Consumption, Distillate	0.02431	0.02424	0.02518	0.02787
Hampton city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00314	0.00310	0.00336	0.00370
Hampton city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.08189	0.08825	0.09619	0.10381
Hampton city	3.4.5	Industrial Fuel Consumption, Residual	0.00583	0.00592	0.00593	0.00645
Hampton city	3.4.5	Industrial Fuel Consumption, Wood	0.79116	0.83815	0.93207	1.05966
Hampton city	3.4.5	Residential Fuel Consumption, Coal	0.02124	0.02166	0.02080	0.01991
Hampton city	3.4.5	Residential Fuel Consumption, Distillate	0.00923	0.00919	0.00864	0.00761
Hampton city	3.4.5	Residential Fuel Consumption, LP Gas	0.00207	0.00204	0.00224	0.00243
Hampton city	3.4.5	Residential Fuel Consumption, Nat Gas	0.02384	0.02578	0.02942	0.03233
Hampton city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Structural Fires	0.02042	0.02319	0.02666	0.02800
Hampton city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.7	Aviation Emissions, Commercial	0.00554	0.00611	0.00754	0.00895
Hampton city	3.4.7	Aviation Emissions, General Aviation	0.06539	0.07215	0.08897	0.10563
Hampton city	3.4.7	Aviation Emissions, Military	1.74222	1.96420	2.12710	2.42586
Hampton city	3.4.7	Commercial Marine Vessels	0.05570	0.05730	0.06165	0.06669
Hampton city	3.4.7	Locomotive	0.00326	0.00282	0.00237	0.00205
Hampton city	3.4.7	Military Marine Vessels	0.04808	0.03423	0.03423	0.03423
Hampton city	3.4.8	Off-Road, Modeled, 2-Stroke	1.02440	0.97738	1.00975	1.10143
Hampton city	3.4.8	Off-Road, Modeled, 4-Stroke	15.71024	17.02624	19.21647	21.56270
Hampton city	3.4.8	Off-Road, Modeled, CNG	0.10014	0.10314	0.05396	0.02169
Hampton city	3.4.8	Off-Road, Modeled, Diesel	0.11117	0.10584	0.10430	0.05452
Hampton city	3.4.8	Off-Road, Modeled, LPG	1.06401	1.12950	0.66421	0.21144
Hampton city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.63247	1.53911	1.35316	1.27139
Hampton city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	1.02301	0.98618	0.88770	0.78246
Hampton city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00861	0.00930	0.01069	0.01229
Hampton city	3.4.8	Railroads	0.00007	0.00007	0.00007	0.00007
Hampton city	**3.4.8**	**TOTAL**	**25.07641**	**26.53587**	**28.33086**	**30.60469**
Isle of Wight County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.4.b	On-Site Incineration	0.07277	0.07987	0.09676	0.11519
Isle of Wight County	3.4.4.b	Open Burning	0.47945	0.52297	0.12486	0.14382
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Coal	0.00191	0.00203	0.00200	0.00200
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Distillate	0.00146	0.00170	0.00193	0.00213
Isle of Wight County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00010	0.00010	0.00010	0.00011

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00306	0.00317	0.00379	0.00432
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Residual	0.00014	0.00021	0.00022	0.00023
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Wood	0.00013	0.00013	0.00013	0.00013
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Coal	1.30976	1.25241	1.26168	1.29052
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Distillate	0.02783	0.02775	0.02883	0.03191
Isle of Wight County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00359	0.00355	0.00384	0.00423
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.09375	0.10102	0.11011	0.11884
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Residual	0.00667	0.00678	0.00679	0.00738
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Wood	0.90567	0.95945	1.06697	1.21303
Isle of Wight County	3.4.5	Residential Fuel Consumption, Coal	0.00438	0.00447	0.00429	0.00411
Isle of Wight County	3.4.5	Residential Fuel Consumption, Distillate	0.00190	0.00190	0.00178	0.00157
Isle of Wight County	3.4.5	Residential Fuel Consumption, LP Gas	0.00043	0.00042	0.00046	0.00050
Isle of Wight County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00492	0.00532	0.00607	0.00667
Isle of Wight County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.6	Forest Wildfires	1.34315	1.34315	1.34315	1.34315
Isle of Wight County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.6	Structural Fires	0.00057	0.00064	0.00074	0.00078
Isle of Wight County	3.4.7	Aviation Emissions, Air Taxi	0.00385	0.00425	0.00524	0.00622
Isle of Wight County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.7	Aviation Emissions, General Aviation	0.03868	0.04268	0.05263	0.06249
Isle of Wight County	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.7	Commercial Marine Vessels	0.08955	0.09213	0.09911	0.10723
Isle of Wight County	3.4.7	Locomotive	0.05978	0.05176	0.04344	0.03764
Isle of Wight County	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.8	Off-Road, Modeled, 2-Stroke	0.84003	0.85256	0.93236	1.00914
Isle of Wight County	3.4.8	Off-Road, Modeled, 4-Stroke	8.86038	9.55186	10.53254	11.62009
Isle of Wight County	3.4.8	Off-Road, Modeled, CNG	0.07769	0.07830	0.04361	0.01484
Isle of Wight County	3.4.8	Off-Road, Modeled, Diesel	0.50356	0.45152	0.37675	0.20819
Isle of Wight County	3.4.8	Off-Road, Modeled, LPG	0.94290	0.99909	0.58148	0.17872
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.05870	0.99815	0.87755	0.82453
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.64861	0.62526	0.56282	0.49610
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00475	0.00513	0.00590	0.00678
Isle of Wight County	3.4.8	Railroads	0.01371	0.01429	0.01473	0.01455
Isle of Wight County	**3.4.8**	**TOTAL**	**17.40381**	**18.08403**	**18.19268**	**18.87713**
James City County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
James City County	3.4.4.b	On-Site Incineration	0.06241	0.06801	0.08096	0.09380
James City County	3.4.4.b	Open Burning	0.20904	0.22801	0.05444	0.06271
James City County	3.4.5	Commercial Fuel Consumption, Coal	0.00738	0.00786	0.00775	0.00772
James City County	3.4.5	Commercial Fuel Consumption, Distillate	0.00563	0.00660	0.00746	0.00824
James City County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00038	0.00040	0.00041	0.00042
James City County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.01182	0.01228	0.01468	0.01673
James City County	3.4.5	Commercial Fuel Consumption, Residual	0.00054	0.00082	0.00086	0.00089

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
James City County	3.4.5	Commercial Fuel Consumption, Wood	0.00052	0.00052	0.00052	0.00052
James City County	3.4.5	Industrial Fuel Consumption, Coal	0.48447	0.46326	0.46669	0.47736
James City County	3.4.5	Industrial Fuel Consumption, Distillate	0.01029	0.01026	0.01066	0.01180
James City County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00133	0.00131	0.00142	0.00157
James City County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.03468	0.03737	0.04073	0.04396
James City County	3.4.5	Industrial Fuel Consumption, Residual	0.00247	0.00251	0.00251	0.00273
James City County	3.4.5	Industrial Fuel Consumption, Wood	0.33500	0.35490	0.39467	0.44869
James City County	3.4.5	Residential Fuel Consumption, Coal	0.00731	0.00745	0.00716	0.00685
James City County	3.4.5	Residential Fuel Consumption, Distillate	0.00317	0.00316	0.00297	0.00262
James City County	3.4.5	Residential Fuel Consumption, LP Gas	0.00071	0.00070	0.00077	0.00084
James City County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00820	0.00887	0.01012	0.01112
James City County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
James City County	3.4.6	Forest Wildfires	0.03803	0.03803	0.03803	0.03803
James City County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
James City County	3.4.6	Structural Fires	0.00860	0.00977	0.01123	0.01180
James City County	3.4.7	Aviation Emissions, Air Taxi	0.03083	0.03402	0.04195	0.04980
James City County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
James City County	3.4.7	Aviation Emissions, General Aviation	0.13867	0.15300	0.18868	0.22402
James City County	3.4.7	Aviation Emissions, Military	0.44494	0.50163	0.54323	0.61953
James City County	3.4.7	Commercial Marine Vessels	0.05853	0.06021	0.06477	0.07008
James City County	3.4.7	Locomotive	0.02826	0.02447	0.02054	0.01779
James City County	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
James City County	3.4.8	Off-Road, Modeled, 2-Stroke	1.41927	1.54089	1.77037	1.87726
James City County	3.4.8	Off-Road, Modeled, 4-Stroke	12.30543	13.46476	15.14837	16.69461
James City County	3.4.8	Off-Road, Modeled, CNG	0.04060	0.04150	0.02135	0.00882
James City County	3.4.8	Off-Road, Modeled, Diesel	0.91001	0.81246	0.69677	0.37762
James City County	3.4.8	Off-Road, Modeled, LPG	0.44240	0.46891	0.27701	0.09139
James City County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	2.02427	1.90849	1.67792	1.57652
James City County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.75973	0.73238	0.65925	0.58110
James City County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00644	0.00695	0.00798	0.00916
James City County	3.4.8	Railroads	0.00724	0.00753	0.00772	0.00755
James City County	**3.4.8**	**TOTAL**	**19.84860**	**21.01931**	**22.27991**	**23.45363**
Newport News city	3.4.4.a	Landfills	0.00008	0.00008	0.00009	0.00011
Newport News city	3.4.4.b	On-Site Incineration	0.42483	0.46621	0.56465	0.67194
Newport News city	3.4.4.b	Open Burning	0.08323	0.09079	0.10838	0.12483
Newport News city	3.4.5	Commercial Fuel Consumption, Coal	0.02363	0.02516	0.02482	0.02473
Newport News city	3.4.5	Commercial Fuel Consumption, Distillate	0.01804	0.02113	0.02388	0.02640
Newport News city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00122	0.00130	0.00130	0.00135
Newport News city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.03786	0.03934	0.04701	0.05359
Newport News city	3.4.5	Commercial Fuel Consumption, Residual	0.00172	0.00263	0.00274	0.00285
Newport News city	3.4.5	Commercial Fuel Consumption, Wood	0.00167	0.00167	0.00167	0.00167
Newport News city	3.4.5	Industrial Fuel Consumption, Coal	5.20613	4.97816	5.01501	5.12966

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Newport News city	3.4.5	Industrial Fuel Consumption, Distillate	0.11063	0.11029	0.11459	0.12683
Newport News city	3.4.5	Industrial Fuel Consumption, LP Gas	0.01427	0.01413	0.01527	0.01683
Newport News city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.37263	0.40154	0.43768	0.47237
Newport News city	3.4.5	Industrial Fuel Consumption, Residual	0.02651	0.02695	0.02697	0.02933
Newport News city	3.4.5	Industrial Fuel Consumption, Wood	3.59992	3.81371	4.24108	4.82162
Newport News city	3.4.5	Residential Fuel Consumption, Coal	0.02596	0.02647	0.02542	0.02433
Newport News city	3.4.5	Residential Fuel Consumption, Distillate	0.01128	0.01123	0.01057	0.00930
Newport News city	3.4.5	Residential Fuel Consumption, LP Gas	0.00253	0.00250	0.00274	0.00297
Newport News city	3.4.5	Residential Fuel Consumption, Nat Gas	0.02913	0.03151	0.03596	0.03952
Newport News city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.6	Forest Wildfires	0.02466	0.02466	0.02466	0.02466
Newport News city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.6	Structural Fires	0.03554	0.04036	0.04640	0.04874
Newport News city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Commercial Marine Vessels	0.10824	0.11136	0.11979	0.12960
Newport News city	3.4.7	Locomotive	0.04239	0.03671	0.03081	0.02669
Newport News city	3.4.7	Military Marine Vessels	0.45323	0.22662	0.22662	0.22662
Newport News city	3.4.8	Off-Road, Modeled, 2-Stroke	1.43560	1.23091	1.13321	1.26326
Newport News city	3.4.8	Off-Road, Modeled, 4-Stroke	26.27795	27.93532	30.44643	33.66954
Newport News city	3.4.8	Off-Road, Modeled, CNG	0.41183	0.42744	0.24107	0.08335
Newport News city	3.4.8	Off-Road, Modeled, Diesel	0.91313	0.82907	0.74494	0.36864
Newport News city	3.4.8	Off-Road, Modeled, LPG	5.15758	5.46667	3.18417	0.97897
Newport News city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.52239	0.49251	0.43301	0.40684
Newport News city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.54911	0.52935	0.47648	0.42000
Newport News city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00460	0.00498	0.00572	0.00658
Newport News city	3.4.8	Railroads	0.00514	0.00534	0.00548	0.00536
Newport News city	**3.4.8**	**TOTAL**	**45.93269**	**47.42606**	**47.81862**	**49.23909**
Norfolk city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.4.b	On-Site Incineration	0.33089	0.36138	0.43267	0.50580
Norfolk city	3.4.4.b	Open Burning	0.08323	0.09079	0.10838	0.12483
Norfolk city	3.4.5	Commercial Fuel Consumption, Coal	0.04468	0.04756	0.04692	0.04674
Norfolk city	3.4.5	Commercial Fuel Consumption, Distillate	0.03410	0.03994	0.04515	0.04991
Norfolk city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00230	0.00245	0.00246	0.00255
Norfolk city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.07157	0.07436	0.08886	0.10131
Norfolk city	3.4.5	Commercial Fuel Consumption, Residual	0.00325	0.00497	0.00518	0.00539
Norfolk city	3.4.5	Commercial Fuel Consumption, Wood	0.00315	0.00315	0.00315	0.00315
Norfolk city	3.4.5	Industrial Fuel Consumption, Coal	2.71385	2.59501	2.61422	2.67399
Norfolk city	3.4.5	Industrial Fuel Consumption, Distillate	0.05767	0.05749	0.05973	0.06612
Norfolk city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00744	0.00736	0.00796	0.00877

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Norfolk city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.19424	0.20931	0.22815	0.24624
Norfolk city	3.4.5	Industrial Fuel Consumption, Residual	0.01382	0.01405	0.01406	0.01529
Norfolk city	3.4.5	Industrial Fuel Consumption, Wood	1.87657	1.98801	2.21079	2.51341
Norfolk city	3.4.5	Residential Fuel Consumption, Coal	0.03268	0.03332	0.03200	0.03062
Norfolk city	3.4.5	Residential Fuel Consumption, Distillate	0.01419	0.01414	0.01330	0.01170
Norfolk city	3.4.5	Residential Fuel Consumption, LP Gas	0.00319	0.00315	0.00345	0.00374
Norfolk city	3.4.5	Residential Fuel Consumption, Nat Gas	0.03667	0.03965	0.04525	0.04974
Norfolk city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Structural Fires	0.05246	0.05957	0.06849	0.07194
Norfolk city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.7	Aviation Emissions, Commercial	0.75395	0.83187	1.02586	1.21797
Norfolk city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.7	Aviation Emissions, Military	0.77180	0.87014	0.94230	1.07465
Norfolk city	3.4.7	Commercial Marine Vessels	0.34755	0.35755	0.38464	0.41615
Norfolk city	3.4.7	Locomotive	0.11522	0.09976	0.08373	0.07254
Norfolk city	3.4.7	Military Marine Vessels	0.37846	0.26846	0.26846	0.26846
Norfolk city	3.4.8	Off-Road, Modeled, 2-Stroke	2.57629	2.21564	2.05789	2.28132
Norfolk city	3.4.8	Off-Road, Modeled, 4-Stroke	44.08274	47.58113	53.11987	59.59902
Norfolk city	3.4.8	Off-Road, Modeled, CNG	0.25684	0.26306	0.12990	0.05830
Norfolk city	3.4.8	Off-Road, Modeled, Diesel	2.45465	2.20374	1.91230	1.03701
Norfolk city	3.4.8	Off-Road, Modeled, LPG	2.45370	2.60710	1.54744	0.51261
Norfolk city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.11008	1.04659	0.92015	0.86455
Norfolk city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.64690	0.62361	0.56134	0.49479
Norfolk city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00545	0.00589	0.00676	0.00777
Norfolk city	3.4.8	Railroads	0.00263	0.00273	0.00280	0.00274
Norfolk city	**3.4.8**	**TOTAL**	**61.53222**	**64.62296**	**68.99363**	**74.43915**
Poquoson city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.4.b	On-Site Incineration	0.01207	0.01312	0.01552	0.01779
Poquoson city	3.4.4.b	Open Burning	0.41616	0.45394	0.10838	0.12483
Poquoson city	3.4.5	Commercial Fuel Consumption, Coal	0.00058	0.00061	0.00061	0.00060
Poquoson city	3.4.5	Commercial Fuel Consumption, Distillate	0.00044	0.00052	0.00058	0.00064
Poquoson city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00003	0.00003	0.00003	0.00003
Poquoson city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00092	0.00096	0.00115	0.00131
Poquoson city	3.4.5	Commercial Fuel Consumption, Residual	0.00004	0.00006	0.00007	0.00007
Poquoson city	3.4.5	Commercial Fuel Consumption, Wood	0.00004	0.00004	0.00004	0.00004
Poquoson city	3.4.5	Industrial Fuel Consumption, Coal	0.00358	0.00343	0.00345	0.00353
Poquoson city	3.4.5	Industrial Fuel Consumption, Distillate	0.00008	0.00008	0.00008	0.00009
Poquoson city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00001	0.00001	0.00001	0.00001
Poquoson city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00026	0.00028	0.00030	0.00033
Poquoson city	3.4.5	Industrial Fuel Consumption, Residual	0.00002	0.00002	0.00002	0.00002

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Poquoson city	3.4.5	Industrial Fuel Consumption, Wood	0.00248	0.00262	0.00292	0.00332
Poquoson city	3.4.5	Residential Fuel Consumption, Coal	0.00166	0.00170	0.00163	0.00156
Poquoson city	3.4.5	Residential Fuel Consumption, Distillate	0.00072	0.00072	0.00068	0.00060
Poquoson city	3.4.5	Residential Fuel Consumption, LP Gas	0.00016	0.00016	0.00018	0.00019
Poquoson city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00187	0.00202	0.00230	0.00253
Poquoson city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Structural Fires	0.00284	0.00322	0.00370	0.00389
Poquoson city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Commercial Marine Vessels	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Locomotive	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Military Marine Vessels	0.01346	0.00962	0.00962	0.00962
Poquoson city	3.4.8	Off-Road, Modeled, 2-Stroke	0.28447	0.24635	0.23379	0.26275
Poquoson city	3.4.8	Off-Road, Modeled, 4-Stroke	3.91356	4.23856	4.71461	5.29414
Poquoson city	3.4.8	Off-Road, Modeled, CNG	0.00197	0.00196	0.00070	0.00054
Poquoson city	3.4.8	Off-Road, Modeled, Diesel	0.01252	0.01216	0.01158	0.00832
Poquoson city	3.4.8	Off-Road, Modeled, LPG	0.01043	0.01109	0.00673	0.00276
Poquoson city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.75094	0.70799	0.62245	0.58484
Poquoson city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.66947	0.64537	0.58092	0.51205
Poquoson city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00561	0.00607	0.00698	0.00803
Poquoson city	**3.4.8**	**TOTAL**	**6.10639**	**6.36272**	**6.32900**	**6.84444**
Portsmouth city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.4.b	On-Site Incineration	0.19969	0.21886	0.26425	0.31299
Portsmouth city	3.4.4.b	Open Burning	0.08323	0.09079	0.10838	0.12483
Portsmouth city	3.4.5	Commercial Fuel Consumption, Coal	0.01035	0.01102	0.01087	0.01083
Portsmouth city	3.4.5	Commercial Fuel Consumption, Distillate	0.00790	0.00925	0.01046	0.01156
Portsmouth city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00053	0.00057	0.00057	0.00059
Portsmouth city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.01659	0.01723	0.02059	0.02348
Portsmouth city	3.4.5	Commercial Fuel Consumption, Residual	0.00075	0.00115	0.00120	0.00125
Portsmouth city	3.4.5	Commercial Fuel Consumption, Wood	0.00073	0.00073	0.00073	0.00073
Portsmouth city	3.4.5	Industrial Fuel Consumption, Coal	2.13080	2.03749	2.05257	2.09950
Portsmouth city	3.4.5	Industrial Fuel Consumption, Distillate	0.04528	0.04514	0.04690	0.05191
Portsmouth city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00584	0.00578	0.00625	0.00689
Portsmouth city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.15251	0.16434	0.17914	0.19334
Portsmouth city	3.4.5	Industrial Fuel Consumption, Residual	0.01085	0.01103	0.01104	0.01200
Portsmouth city	3.4.5	Industrial Fuel Consumption, Wood	1.47340	1.56090	1.73581	1.97342
Portsmouth city	3.4.5	Residential Fuel Consumption, Coal	0.01423	0.01451	0.01394	0.01334
Portsmouth city	3.4.5	Residential Fuel Consumption, Distillate	0.00618	0.00616	0.00579	0.00510

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Portsmouth city	3.4.5	Residential Fuel Consumption, LP Gas	0.00139	0.00137	0.00150	0.00163
Portsmouth city	3.4.5	Residential Fuel Consumption, Nat Gas	0.01597	0.01727	0.01971	0.02167
Portsmouth city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Structural Fires	0.05535	0.06286	0.07227	0.07591
Portsmouth city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Commercial Marine Vessels	0.19627	0.20192	0.21722	0.23501
Portsmouth city	3.4.7	Locomotive	0.05761	0.04988	0.04186	0.03627
Portsmouth city	3.4.7	Military Marine Vessels	0.01423	0.01000	0.01000	0.01000
Portsmouth city	3.4.8	Off-Road, Modeled, 2-Stroke	0.68395	0.63397	0.63744	0.69984
Portsmouth city	3.4.8	Off-Road, Modeled, 4-Stroke	11.38197	12.35617	14.00007	15.76790
Portsmouth city	3.4.8	Off-Road, Modeled, CNG	0.05299	0.05422	0.02645	0.01212
Portsmouth city	3.4.8	Off-Road, Modeled, Diesel	0.07142	0.06821	0.06681	0.03773
Portsmouth city	3.4.8	Off-Road, Modeled, LPG	0.47850	0.50885	0.30258	0.10017
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.68564	0.64642	0.56833	0.53398
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.27832	0.26830	0.24151	0.21288
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00235	0.00254	0.00292	0.00335
Portsmouth city	3.4.8	Railroads	0.00087	0.00091	0.00093	0.00091
Portsmouth city	**3.4.8**	**TOTAL**	**18.13571**	**19.07784**	**20.67810**	**22.59112**
Suffolk city	3.4.4.a	Landfills	0.18186	0.18882	0.20685	0.23920
Suffolk city	3.4.4.b	On-Site Incineration	0.09018	0.09841	0.11761	0.13709
Suffolk city	3.4.4.b	Open Burning	0.08323	0.09079	0.10838	0.12483
Suffolk city	3.4.5	Commercial Fuel Consumption, Coal	0.00606	0.00645	0.00637	0.00634
Suffolk city	3.4.5	Commercial Fuel Consumption, Distillate	0.00463	0.00542	0.00613	0.00677
Suffolk city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00031	0.00033	0.00033	0.00035
Suffolk city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00971	0.01009	0.01206	0.01375
Suffolk city	3.4.5	Commercial Fuel Consumption, Residual	0.00044	0.00067	0.00070	0.00073
Suffolk city	3.4.5	Commercial Fuel Consumption, Wood	0.00043	0.00043	0.00043	0.00043
Suffolk city	3.4.5	Industrial Fuel Consumption, Coal	0.49253	0.47096	0.47445	0.48530
Suffolk city	3.4.5	Industrial Fuel Consumption, Distillate	0.01047	0.01043	0.01084	0.01200
Suffolk city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00135	0.00134	0.00144	0.00159
Suffolk city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.03525	0.03799	0.04141	0.04469
Suffolk city	3.4.5	Industrial Fuel Consumption, Residual	0.00251	0.00255	0.00255	0.00277
Suffolk city	3.4.5	Industrial Fuel Consumption, Wood	0.34057	0.36080	0.40123	0.45615
Suffolk city	3.4.5	Residential Fuel Consumption, Coal	0.00944	0.00963	0.00924	0.00885
Suffolk city	3.4.5	Residential Fuel Consumption, Distillate	0.00410	0.00408	0.00384	0.00338
Suffolk city	3.4.5	Residential Fuel Consumption, LP Gas	0.00092	0.00091	0.00100	0.00108
Suffolk city	3.4.5	Residential Fuel Consumption, Nat Gas	0.01059	0.01146	0.01308	0.01437

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Suffolk city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.6	Forest Wildfires	0.39556	0.39556	0.39556	0.39556
Suffolk city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.6	Structural Fires	0.01503	0.01707	0.01962	0.02061
Suffolk city	3.4.7	Aviation Emissions, Air Taxi	0.01012	0.01117	0.01377	0.01635
Suffolk city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Aviation Emissions, General Aviation	0.07653	0.08444	0.10413	0.12363
Suffolk city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Commercial Marine Vessels	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Locomotive	0.06522	0.05647	0.04739	0.04106
Suffolk city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.8	Off-Road, Modeled, 2-Stroke	0.74041	0.69802	0.70665	0.77199
Suffolk city	3.4.8	Off-Road, Modeled, 4-Stroke	10.97065	11.83768	13.17229	14.63762
Suffolk city	3.4.8	Off-Road, Modeled, CNG	0.04782	0.04640	0.02198	0.00994
Suffolk city	3.4.8	Off-Road, Modeled, Diesel	0.96777	0.86378	0.72614	0.40242
Suffolk city	3.4.8	Off-Road, Modeled, LPG	0.41623	0.44202	0.26287	0.08810
Suffolk city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	1.56717	1.47754	1.29903	1.22053
Suffolk city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.51903	0.50034	0.45038	0.39699
Suffolk city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.00441	0.00476	0.00546	0.00626
Suffolk city	3.4.8	Railroads	0.01899	0.01974	0.02024	0.01981
Suffolk city	**3.4.8**	**TOTAL**	**17.09953**	**17.76655**	**18.66346**	**19.71056**
Virginia Beach city	3.4.4.a	Landfills	0.14003	0.14539	0.15927	0.18418
Virginia Beach city	3.4.4.b	On-Site Incineration	0.50333	0.54806	0.65138	0.75272
Virginia Beach city	3.4.4.b	Open Burning	0.38356	0.41837	0.49942	0.57528
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Coal	0.05542	0.05900	0.05821	0.05799
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Distillate	0.04231	0.04955	0.05601	0.06191
Virginia Beach city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00286	0.00304	0.00305	0.00316
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.08879	0.09225	0.11024	0.12568
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Residual	0.00403	0.00617	0.00643	0.00668
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Wood	0.00391	0.00391	0.00391	0.00391
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Coal	1.37036	1.31035	1.32005	1.35023
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Distillate	0.02912	0.02903	0.03016	0.03339
Virginia Beach city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00376	0.00372	0.00402	0.00443
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.09808	0.10569	0.11521	0.12434
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Residual	0.00698	0.00709	0.00710	0.00772
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Wood	0.94757	1.00384	1.11634	1.26915
Virginia Beach city	3.4.5	Residential Fuel Consumption, Coal	0.06155	0.06276	0.06026	0.05768
Virginia Beach city	3.4.5	Residential Fuel Consumption, Distillate	0.02673	0.02662	0.02505	0.02204
Virginia Beach city	3.4.5	Residential Fuel Consumption, LP Gas	0.00600	0.00592	0.00649	0.00705
Virginia Beach city	3.4.5	Residential Fuel Consumption, Nat Gas	0.06906	0.07468	0.08523	0.09368
Virginia Beach city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Virginia Beach city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Structural Fires	0.05492	0.06236	0.07170	0.07531
Virginia Beach city	3.4.7	Aviation Emissions, Air Taxi	0.81747	0.90196	1.11229	1.32059
Virginia Beach city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.7	Aviation Emissions, General Aviation	0.36026	0.39749	0.49019	0.58198
Virginia Beach city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.7	Commercial Marine Vessels	0.03791	0.03900	0.04196	0.04540
Virginia Beach city	3.4.7	Locomotive	0.00543	0.00471	0.00395	0.00342
Virginia Beach city	3.4.7	Military Marine Vessels	0.37692	0.26731	0.26731	0.26731
Virginia Beach city	3.4.8	Off-Road, Modeled, 2-Stroke	6.05132	5.62744	5.70880	6.25301
Virginia Beach city	3.4.8	Off-Road, Modeled, 4-Stroke	84.50818	91.81426	103.16059	115.79593
Virginia Beach city	3.4.8	Off-Road, Modeled, CNG	0.22137	0.22315	0.09674	0.05381
Virginia Beach city	3.4.8	Off-Road, Modeled, Diesel	2.56305	2.30900	2.00436	1.12071
Virginia Beach city	3.4.8	Off-Road, Modeled, LPG	1.56655	1.66921	1.01382	0.36608
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	6.17075	5.81782	5.11494	4.80586
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	3.41504	3.29211	2.96334	2.61205
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.02877	0.03110	0.03572	0.04105
Virginia Beach city	3.4.8	Railroads	0.00020	0.00021	0.00022	0.00021
Virginia Beach city	**3.4.8**	**TOTAL**	**110.16548**	**116.41259**	**126.40374**	**138.08394**
Williamsburg city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.4.b	On-Site Incineration	0.01350	0.01469	0.01744	0.02009
Williamsburg city	3.4.4.b	Open Burning	0.20904	0.22801	0.05444	0.06271
Williamsburg city	3.4.5	Commercial Fuel Consumption, Coal	0.00763	0.00812	0.00802	0.00798
Williamsburg city	3.4.5	Commercial Fuel Consumption, Distillate	0.00583	0.00682	0.00771	0.00853
Williamsburg city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00039	0.00042	0.00042	0.00044
Williamsburg city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.01223	0.01270	0.01518	0.01731
Williamsburg city	3.4.5	Commercial Fuel Consumption, Residual	0.00056	0.00085	0.00089	0.00092
Williamsburg city	3.4.5	Commercial Fuel Consumption, Wood	0.00054	0.00054	0.00054	0.00054
Williamsburg city	3.4.5	Industrial Fuel Consumption, Coal	0.02560	0.02448	0.02466	0.02522
Williamsburg city	3.4.5	Industrial Fuel Consumption, Distillate	0.00054	0.00054	0.00056	0.00062
Williamsburg city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00007	0.00007	0.00008	0.00008
Williamsburg city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00183	0.00197	0.00215	0.00232
Williamsburg city	3.4.5	Industrial Fuel Consumption, Residual	0.00013	0.00013	0.00013	0.00014
Williamsburg city	3.4.5	Industrial Fuel Consumption, Wood	0.01770	0.01875	0.02085	0.02371
Williamsburg city	3.4.5	Residential Fuel Consumption, Coal	0.00172	0.00176	0.00169	0.00161
Williamsburg city	3.4.5	Residential Fuel Consumption, Distillate	0.00075	0.00075	0.00070	0.00062
Williamsburg city	3.4.5	Residential Fuel Consumption, LP Gas	0.00017	0.00017	0.00018	0.00020
Williamsburg city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00193	0.00209	0.00239	0.00262
Williamsburg city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Structural Fires	0.00331	0.00376	0.00432	0.00454

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Williamsburg city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Commercial Marine Vessels	0.04407	0.04534	0.04878	0.05277
Williamsburg city	3.4.7	Locomotive	0.02717	0.02353	0.01975	0.01711
Williamsburg city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.8	Off-Road, Modeled, 2-Stroke	0.37693	0.37741	0.41180	0.44619
Williamsburg city	3.4.8	Off-Road, Modeled, 4-Stroke	4.13240	4.51579	5.07416	5.67298
Williamsburg city	3.4.8	Off-Road, Modeled, CNG	0.00620	0.00629	0.00277	0.00152
Williamsburg city	3.4.8	Off-Road, Modeled, Diesel	0.01596	0.01548	0.01466	0.00994
Williamsburg city	3.4.8	Off-Road, Modeled, LPG	0.04665	0.04965	0.02990	0.01065
Williamsburg city	3.4.8	Railroads	0.00724	0.00753	0.00772	0.00755
Williamsburg city	**3.4.8**	**TOTAL**	**4.96010**	**5.36764**	**5.77187**	**6.39891**
York County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
York County	3.4.4.b	On-Site Incineration	0.06586	0.07166	0.08499	0.09789
York County	3.4.4.b	Open Burning	0.41616	0.45394	0.10838	0.12483
York County	3.4.5	Commercial Fuel Consumption, Coal	0.00511	0.00544	0.00536	0.00534
York County	3.4.5	Commercial Fuel Consumption, Distillate	0.00390	0.00456	0.00516	0.00570
York County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00026	0.00028	0.00028	0.00029
York County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00818	0.00850	0.01016	0.01158
York County	3.4.5	Commercial Fuel Consumption, Residual	0.00037	0.00057	0.00059	0.00062
York County	3.4.5	Commercial Fuel Consumption, Wood	0.00036	0.00036	0.00036	0.00036
York County	3.4.5	Industrial Fuel Consumption, Coal	0.15448	0.14771	0.14880	0.15221
York County	3.4.5	Industrial Fuel Consumption, Distillate	0.00328	0.00327	0.00340	0.00376
York County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00042	0.00042	0.00045	0.00050
York County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.01106	0.01191	0.01299	0.01402
York County	3.4.5	Industrial Fuel Consumption, Residual	0.00079	0.00080	0.00080	0.00087
York County	3.4.5	Industrial Fuel Consumption, Wood	0.10682	0.11316	0.12584	0.14307
York County	3.4.5	Residential Fuel Consumption, Coal	0.00849	0.00865	0.00831	0.00795
York County	3.4.5	Residential Fuel Consumption, Distillate	0.00369	0.00367	0.00345	0.00304
York County	3.4.5	Residential Fuel Consumption, LP Gas	0.00083	0.00082	0.00090	0.00097
York County	3.4.5	Residential Fuel Consumption, Nat Gas	0.00952	0.01030	0.01175	0.01292
York County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
York County	3.4.6	Forest Wildfires	0.01296	0.01296	0.01296	0.01296
York County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
York County	3.4.6	Structural Fires	0.00567	0.00644	0.00740	0.00778
York County	3.4.7	Aviation Emissions, Air Taxi	0.25394	0.28019	0.34552	0.41023
York County	3.4.7	Aviation Emissions, Commercial	0.07185	0.07928	0.09776	0.11607
York County	3.4.7	Aviation Emissions, General Aviation	1.18892	1.31180	1.61770	1.92065
York County	3.4.7	Aviation Emissions, Military	0.00162	0.00182	0.00197	0.00225
York County	3.4.7	Commercial Marine Vessels	0.04336	0.04461	0.04799	0.05192

Table 7.2-5						
Combined Area and Nonroad Mobile Source CO Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
York County	3.4.7	Locomotive	0.03043	0.02635	0.02212	0.01916
York County	3.4.7	Military Marine Vessels	0.03269	0.02308	0.02308	0.02308
York County	3.4.8	Off-Road, Modeled, 2-Stroke	2.73369	2.47605	2.46277	2.72883
York County	3.4.8	Off-Road, Modeled, 4-Stroke	33.49458	36.32244	40.34303	45.17153
York County	3.4.8	Off-Road, Modeled, CNG	0.02299	0.02328	0.01016	0.00566
York County	3.4.8	Off-Road, Modeled, Diesel	0.48149	0.43700	0.38187	0.22320
York County	3.4.8	Off-Road, Modeled, LPG	0.20356	0.21557	0.12739	0.04537
York County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	2.28546	2.15475	1.89442	1.77995
York County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	1.38407	1.33425	1.20100	1.05863
York County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.01165	0.01259	0.01447	0.01663
York County	3.4.8	Railroads	0.00724	0.00753	0.00772	0.00755
York County	**3.4.8**	**TOTAL**	**43.06575**	**45.61600**	**49.15130**	**54.18737**

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Chesapeake city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.4.b	On-Site Incineration	0.05955	0.06505	0.07792	0.09076
Chesapeake city	3.4.4.b	Open Burning	0.00238	0.00259	0.00310	0.00357
Chesapeake city	3.4.5	Commercial Fuel Consumption, Coal	0.02138	0.02276	0.02246	0.02237
Chesapeake city	3.4.5	Commercial Fuel Consumption, Distillate	0.07560	0.08853	0.10009	0.11063
Chesapeake city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00941	0.01001	0.01004	0.01041
Chesapeake city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.18887	0.19623	0.23449	0.26734
Chesapeake city	3.4.5	Commercial Fuel Consumption, Residual	0.01981	0.03031	0.03160	0.03283
Chesapeake city	3.4.5	Commercial Fuel Consumption, Wood	0.00010	0.00010	0.00010	0.00010
Chesapeake city	3.4.5	Industrial Fuel Consumption, Coal	1.23775	1.18355	1.19231	1.21957
Chesapeake city	3.4.5	Industrial Fuel Consumption, Distillate	0.10521	0.10489	0.10898	0.12062
Chesapeake city	3.4.5	Industrial Fuel Consumption, LP Gas	0.02014	0.01994	0.02155	0.02376
Chesapeake city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.35437	0.38186	0.41623	0.44922
Chesapeake city	3.4.5	Industrial Fuel Consumption, Residual	0.06933	0.07047	0.07054	0.07670
Chesapeake city	3.4.5	Industrial Fuel Consumption, Wood	0.04928	0.05220	0.05805	0.06600
Chesapeake city	3.4.5	Residential Fuel Consumption, Coal	0.00099	0.00101	0.00097	0.00093
Chesapeake city	3.4.5	Residential Fuel Consumption, Distillate	0.04684	0.04665	0.04388	0.03861
Chesapeake city	3.4.5	Residential Fuel Consumption, LP Gas	0.02153	0.02125	0.02328	0.02528
Chesapeake city	3.4.5	Residential Fuel Consumption, Nat Gas	0.07899	0.08542	0.09748	0.10715
Chesapeake city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.6	Forest Wildfires	0.00737	0.00737	0.00737	0.00737
Chesapeake city	3.4.6	Prescribed Burning	0.01349	0.01349	0.01349	0.01349
Chesapeake city	3.4.6	Structural Fires	0.00082	0.00094	0.00108	0.00113
Chesapeake city	3.4.7	Aviation Emissions, Air Taxi	0.00037	0.00041	0.00050	0.00060
Chesapeake city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.7	Aviation Emissions, General Aviation	0.00496	0.00547	0.00675	0.00801
Chesapeake city	3.4.7	Aviation Emissions, Military	2.11534	2.38486	2.58265	2.94539

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Chesapeake city	3.4.7	Commercial Marine Vessels	0.46705	0.48149	0.52001	0.58227
Chesapeake city	3.4.7	Locomotive	1.76335	1.52682	1.28140	1.11022
Chesapeake city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Chesapeake city	3.4.8	Off-Road, Modeled, 2-Stroke	0.01299	0.01597	0.01747	0.02014
Chesapeake city	3.4.8	Off-Road, Modeled, 4-Stroke	0.42924	0.39038	0.31960	0.33769
Chesapeake city	3.4.8	Off-Road, Modeled, CNG	0.04450	0.03196	0.01645	0.01039
Chesapeake city	3.4.8	Off-Road, Modeled, Diesel	0.93965	0.92725	0.83138	0.61221
Chesapeake city	3.4.8	Off-Road, Modeled, LPG	0.32476	0.29383	0.12899	0.05274
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.01085	0.01469	0.02230	0.02770
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.00939	0.01017	0.01189	0.01376
Chesapeake city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.01076	0.01166	0.01228	0.01278
Chesapeake city	3.4.8	Railroads	0.00253	0.00254	0.00234	0.00176
Chesapeake city	**3.4.8**	**TOTAL**	**8.51895**	**8.50213**	**8.28902**	**8.42350**
Gloucester County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.4.b	On-Site Incineration	0.00875	0.00954	0.01138	0.01314
Gloucester County	3.4.4.b	Open Burning	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.5	Commercial Fuel Consumption, Coal	0.00258	0.00275	0.00271	0.00270
Gloucester County	3.4.5	Commercial Fuel Consumption, Distillate	0.00912	0.01068	0.01208	0.01335
Gloucester County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00114	0.00121	0.00121	0.00126
Gloucester County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.02279	0.02368	0.02829	0.03226
Gloucester County	3.4.5	Commercial Fuel Consumption, Residual	0.00239	0.00366	0.00381	0.00396
Gloucester County	3.4.5	Commercial Fuel Consumption, Wood	0.00001	0.00001	0.00001	0.00001
Gloucester County	3.4.5	Industrial Fuel Consumption, Coal	0.07134	0.06822	0.06872	0.07029
Gloucester County	3.4.5	Industrial Fuel Consumption, Distillate	0.00606	0.00605	0.00628	0.00695
Gloucester County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00116	0.00115	0.00124	0.00137
Gloucester County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.02043	0.02201	0.02399	0.02589
Gloucester County	3.4.5	Industrial Fuel Consumption, Residual	0.00400	0.00406	0.00407	0.00442
Gloucester County	3.4.5	Industrial Fuel Consumption, Wood	0.00284	0.00301	0.00335	0.00380
Gloucester County	3.4.5	Residential Fuel Consumption, Coal	0.00017	0.00017	0.00017	0.00016
Gloucester County	3.4.5	Residential Fuel Consumption, Distillate	0.00797	0.00794	0.00747	0.00657
Gloucester County	3.4.5	Residential Fuel Consumption, LP Gas	0.00367	0.00362	0.00396	0.00430
Gloucester County	3.4.5	Residential Fuel Consumption, Nat Gas	0.01345	0.01454	0.01660	0.01824
Gloucester County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.6	Forest Wildfires	0.01222	0.01222	0.01222	0.01222
Gloucester County	3.4.6	Prescribed Burning	0.01278	0.01278	0.01278	0.01278
Gloucester County	3.4.6	Structural Fires	0.00006	0.00006	0.00007	0.00008
Gloucester County	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Aviation Emissions, General Aviation	0.00005	0.00006	0.00007	0.00008
Gloucester County	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Gloucester County	3.4.7	Commercial Marine Vessels	0.28775	0.29611	0.31870	0.34635
Gloucester County	3.4.7	Locomotive	0.00000	0.00000	0.00000	0.00000

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Gloucester County	3.4.7	Military Marine Vessels	0.12308	0.08731	0.08731	0.08731
Gloucester County	3.4.8	Off-Road, Modeled, 2-Stroke	0.00262	0.00305	0.00394	0.00493
Gloucester County	3.4.8	Off-Road, Modeled, 4-Stroke	0.04924	0.04699	0.04105	0.04234
Gloucester County	3.4.8	Off-Road, Modeled, CNG	0.00430	0.00285	0.00147	0.00099
Gloucester County	3.4.8	Off-Road, Modeled, Diesel	0.49282	0.47236	0.39394	0.24811
Gloucester County	3.4.8	Off-Road, Modeled, LPG	0.02608	0.02372	0.01098	0.00482
Gloucester County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.03120	0.04226	0.06413	0.07969
Gloucester County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.05324	0.05762	0.06739	0.07798
Gloucester County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.07549	0.08184	0.08617	0.08971
Gloucester County	**3.4.8**	**TOTAL**	**1.34879**	**1.32151**	**1.29558**	**1.21606**
Hampton city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.4.b	On-Site Incineration	0.04488	0.04906	0.05887	0.06878
Hampton city	3.4.4.b	Open Burning	0.00238	0.00259	0.00310	0.00357
Hampton city	3.4.5	Commercial Fuel Consumption, Coal	0.01626	0.01731	0.01708	0.01701
Hampton city	3.4.5	Commercial Fuel Consumption, Distillate	0.05750	0.06733	0.07612	0.08414
Hampton city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00716	0.00761	0.00764	0.00792
Hampton city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.14365	0.14925	0.17835	0.20333
Hampton city	3.4.5	Commercial Fuel Consumption, Residual	0.01507	0.02305	0.02404	0.02497
Hampton city	3.4.5	Commercial Fuel Consumption, Wood	0.00008	0.00008	0.00008	0.00008
Hampton city	3.4.5	Industrial Fuel Consumption, Coal	1.14417	1.09406	1.10216	1.12736
Hampton city	3.4.5	Industrial Fuel Consumption, Distillate	0.09725	0.09696	0.10074	0.11150
Hampton city	3.4.5	Industrial Fuel Consumption, LP Gas	0.01862	0.01843	0.01992	0.02196
Hampton city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.32757	0.35299	0.38476	0.41526
Hampton city	3.4.5	Industrial Fuel Consumption, Residual	0.06409	0.06514	0.06521	0.07090
Hampton city	3.4.5	Industrial Fuel Consumption, Wood	0.04555	0.04826	0.05366	0.06101
Hampton city	3.4.5	Residential Fuel Consumption, Coal	0.00070	0.00072	0.00069	0.00066
Hampton city	3.4.5	Residential Fuel Consumption, Distillate	0.03321	0.03308	0.03112	0.02738
Hampton city	3.4.5	Residential Fuel Consumption, LP Gas	0.01527	0.01507	0.01651	0.01793
Hampton city	3.4.5	Residential Fuel Consumption, Nat Gas	0.05602	0.06058	0.06913	0.07598
Hampton city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.6	Structural Fires	0.00048	0.00054	0.00062	0.00065
Hampton city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.7	Aviation Emissions, Commercial	0.00438	0.00483	0.00596	0.00708
Hampton city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Hampton city	3.4.7	Aviation Emissions, Military	1.25975	1.42026	1.53805	1.75407
Hampton city	3.4.7	Commercial Marine Vessels	0.14588	0.15008	0.16145	0.17468
Hampton city	3.4.7	Locomotive	0.03265	0.02827	0.02373	0.02056
Hampton city	3.4.7	Military Marine Vessels	0.55808	0.39577	0.39577	0.39577
Hampton city	3.4.8	Off-Road, Modeled, 2-Stroke	0.00411	0.00517	0.00651	0.00780
Hampton city	3.4.8	Off-Road, Modeled, 4-Stroke	0.14092	0.13026	0.10694	0.11069

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Hampton city	3.4.8	Off-Road, Modeled, CNG	0.02697	0.02201	0.01093	0.00612
Hampton city	3.4.8	Off-Road, Modeled, Diesel	0.21543	0.21427	0.19059	0.13618
Hampton city	3.4.8	Off-Road, Modeled, LPG	0.26618	0.23929	0.10001	0.03771
Hampton city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.02009	0.02721	0.04129	0.05130
Hampton city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.04731	0.05121	0.05989	0.06930
Hampton city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.05396	0.05851	0.06161	0.06413
Hampton city	3.4.8	Railroads	0.00002	0.00002	0.00002	0.00002
Hampton city	**3.4.8**	**TOTAL**	**4.86599**	**4.84965**	**4.91302**	**5.17636**
Isle of Wight County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.4.b	On-Site Incineration	0.01588	0.01744	0.02117	0.02522
Isle of Wight County	3.4.4.b	Open Burning	0.01370	0.01494	0.00357	0.00411
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Coal	0.00165	0.00175	0.00173	0.00172
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Distillate	0.00582	0.00682	0.00771	0.00852
Isle of Wight County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00072	0.00077	0.00077	0.00080
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.01455	0.01511	0.01806	0.02059
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Residual	0.00153	0.00233	0.00243	0.00253
Isle of Wight County	3.4.5	Commercial Fuel Consumption, Wood	0.00001	0.00001	0.00001	0.00001
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Coal	1.30976	1.25241	1.26168	1.29052
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Distillate	0.11133	0.11099	0.11532	0.12764
Isle of Wight County	3.4.5	Industrial Fuel Consumption, LP Gas	0.02132	0.02110	0.02280	0.02514
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.37498	0.40408	0.44045	0.47536
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Residual	0.07337	0.07457	0.07465	0.08117
Isle of Wight County	3.4.5	Industrial Fuel Consumption, Wood	0.05214	0.05524	0.06143	0.06984
Isle of Wight County	3.4.5	Residential Fuel Consumption, Coal	0.00015	0.00015	0.00014	0.00014
Isle of Wight County	3.4.5	Residential Fuel Consumption, Distillate	0.00685	0.00682	0.00642	0.00565
Isle of Wight County	3.4.5	Residential Fuel Consumption, LP Gas	0.00315	0.00311	0.00341	0.00370
Isle of Wight County	3.4.5	Residential Fuel Consumption, Nat Gas	0.01156	0.01250	0.01426	0.01568
Isle of Wight County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.6	Forest Wildfires	0.02882	0.02882	0.02882	0.02882
Isle of Wight County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.6	Structural Fires	0.00001	0.00002	0.00002	0.00002
Isle of Wight County	3.4.7	Aviation Emissions, Air Taxi	0.00002	0.00002	0.00003	0.00003
Isle of Wight County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.7	Aviation Emissions, General Aviation	0.00021	0.00023	0.00029	0.00034
Isle of Wight County	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.7	Commercial Marine Vessels	0.23455	0.24130	0.25958	0.28084
Isle of Wight County	3.4.7	Locomotive	0.59867	0.51837	0.43504	0.37693
Isle of Wight County	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Isle of Wight County	3.4.8	Off-Road, Modeled, 2-Stroke	0.00252	0.00288	0.00345	0.00421
Isle of Wight County	3.4.8	Off-Road, Modeled, 4-Stroke	0.06232	0.05634	0.04422	0.04384
Isle of Wight County	3.4.8	Off-Road, Modeled, CNG	0.02104	0.01800	0.00853	0.00439
Isle of Wight County	3.4.8	Off-Road, Modeled, Diesel	0.91305	0.87180	0.72287	0.44971

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Isle of Wight County	3.4.8	Off-Road, Modeled, LPG	0.23421	0.20983	0.08568	0.03107
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.00809	0.01096	0.01663	0.02066
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.02101	0.02275	0.02660	0.03078
Isle of Wight County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.02976	0.03227	0.03398	0.03537
Isle of Wight County	3.4.8	Railroads	0.00428	0.00429	0.00395	0.00296
Isle of Wight County	**3.4.8**	**TOTAL**	**4.17701**	**4.01802**	**3.72569**	**3.46830**
James City County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
James City County	3.4.4.b	On-Site Incineration	0.01372	0.01497	0.01790	0.02079
James City County	3.4.4.b	Open Burning	0.00597	0.00651	0.00156	0.00179
James City County	3.4.5	Commercial Fuel Consumption, Coal	0.00637	0.00678	0.00669	0.00667
James City County	3.4.5	Commercial Fuel Consumption, Distillate	0.02253	0.02639	0.02983	0.03297
James City County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00280	0.00298	0.00299	0.00310
James City County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.05629	0.05849	0.06989	0.07968
James City County	3.4.5	Commercial Fuel Consumption, Residual	0.00591	0.00903	0.00942	0.00979
James City County	3.4.5	Commercial Fuel Consumption, Wood	0.00003	0.00003	0.00003	0.00003
James City County	3.4.5	Industrial Fuel Consumption, Coal	0.48447	0.46326	0.46669	0.47736
James City County	3.4.5	Industrial Fuel Consumption, Distillate	0.04118	0.04105	0.04266	0.04721
James City County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00788	0.00781	0.00844	0.00930
James City County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.13870	0.14946	0.16292	0.17583
James City County	3.4.5	Industrial Fuel Consumption, Residual	0.02714	0.02758	0.02761	0.03002
James City County	3.4.5	Industrial Fuel Consumption, Wood	0.01929	0.02043	0.02272	0.02583
James City County	3.4.5	Residential Fuel Consumption, Coal	0.00024	0.00025	0.00024	0.00023
James City County	3.4.5	Residential Fuel Consumption, Distillate	0.01143	0.01138	0.01071	0.00942
James City County	3.4.5	Residential Fuel Consumption, LP Gas	0.00525	0.00518	0.00568	0.00617
James City County	3.4.5	Residential Fuel Consumption, Nat Gas	0.01927	0.02084	0.02379	0.02614
James City County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
James City County	3.4.6	Forest Wildfires	0.00082	0.00082	0.00082	0.00082
James City County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
James City County	3.4.6	Structural Fires	0.00020	0.00023	0.00026	0.00028
James City County	3.4.7	Aviation Emissions, Air Taxi	0.00017	0.00019	0.00023	0.00027
James City County	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
James City County	3.4.7	Aviation Emissions, General Aviation	0.00072	0.00079	0.00098	0.00116
James City County	3.4.7	Aviation Emissions, Military	0.05923	0.06678	0.07231	0.08247
James City County	3.4.7	Commercial Marine Vessels	0.15457	0.15903	0.17109	0.18531
James City County	3.4.7	Locomotive	0.28301	0.24505	0.20566	0.17818
James City County	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
James City County	3.4.8	Off-Road, Modeled, 2-Stroke	0.00728	0.00822	0.01050	0.01315
James City County	3.4.8	Off-Road, Modeled, 4-Stroke	0.11012	0.10384	0.08974	0.09079
James City County	3.4.8	Off-Road, Modeled, CNG	0.01089	0.00875	0.00435	0.00247
James City County	3.4.8	Off-Road, Modeled, Diesel	1.62928	1.55723	1.27104	0.73895
James City County	3.4.8	Off-Road, Modeled, LPG	0.11075	0.09953	0.04231	0.01638
James City County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.02491	0.03374	0.05120	0.06361

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
James City County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.03513	0.03803	0.04448	0.05146
James City County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.04014	0.04352	0.04582	0.04770
James City County	3.4.8	Railroads	0.00251	0.00252	0.00232	0.00174
James City County	**3.4.8**	**TOTAL**	**3.33821**	**3.24069**	**2.92289**	**2.43709**
Newport News city	3.4.4.a	Landfills	0.01290	0.01339	0.01467	0.01697
Newport News city	3.4.4.b	On-Site Incineration	0.09269	0.10181	0.12356	0.14717
Newport News city	3.4.4.b	Open Burning	0.00238	0.00259	0.00310	0.00357
Newport News city	3.4.5	Commercial Fuel Consumption, Coal	0.02041	0.02173	0.02144	0.02135
Newport News city	3.4.5	Commercial Fuel Consumption, Distillate	0.07216	0.08451	0.09554	0.10560
Newport News city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00898	0.00955	0.00959	0.00994
Newport News city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.18029	0.18731	0.22384	0.25519
Newport News city	3.4.5	Commercial Fuel Consumption, Residual	0.01891	0.02893	0.03017	0.03134
Newport News city	3.4.5	Commercial Fuel Consumption, Wood	0.00010	0.00010	0.00010	0.00010
Newport News city	3.4.5	Industrial Fuel Consumption, Coal	5.20613	4.97816	5.01501	5.12966
Newport News city	3.4.5	Industrial Fuel Consumption, Distillate	0.44252	0.44117	0.45837	0.50734
Newport News city	3.4.5	Industrial Fuel Consumption, LP Gas	0.08473	0.08388	0.09064	0.09992
Newport News city	3.4.5	Industrial Fuel Consumption, Nat Gas	1.49052	1.60615	1.75073	1.88949
Newport News city	3.4.5	Industrial Fuel Consumption, Residual	0.29162	0.29641	0.29672	0.32262
Newport News city	3.4.5	Industrial Fuel Consumption, Wood	0.20727	0.21958	0.24418	0.27761
Newport News city	3.4.5	Residential Fuel Consumption, Coal	0.00086	0.00088	0.00084	0.00081
Newport News city	3.4.5	Residential Fuel Consumption, Distillate	0.04060	0.04043	0.03804	0.03347
Newport News city	3.4.5	Residential Fuel Consumption, LP Gas	0.01866	0.01841	0.02018	0.02191
Newport News city	3.4.5	Residential Fuel Consumption, Nat Gas	0.06847	0.07404	0.08449	0.09287
Newport News city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.6	Forest Wildfires	0.00052	0.00052	0.00052	0.00052
Newport News city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.6	Structural Fires	0.00083	0.00094	0.00108	0.00114
Newport News city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Newport News city	3.4.7	Commercial Marine Vessels	1.30026	1.33876	1.44236	1.58157
Newport News city	3.4.7	Locomotive	0.42451	0.36757	0.30849	0.26728
Newport News city	3.4.7	Military Marine Vessels	1.20723	0.60362	0.60362	0.60362
Newport News city	3.4.8	Off-Road, Modeled, 2-Stroke	0.00556	0.00680	0.00731	0.00819
Newport News city	3.4.8	Off-Road, Modeled, 4-Stroke	0.27035	0.23690	0.17335	0.17082
Newport News city	3.4.8	Off-Road, Modeled, CNG	0.11225	0.09772	0.04726	0.02455
Newport News city	3.4.8	Off-Road, Modeled, Diesel	1.72630	1.66011	1.36070	0.78241
Newport News city	3.4.8	Off-Road, Modeled, LPG	1.28180	1.14883	0.46966	0.17045
Newport News city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.00643	0.00871	0.01321	0.01642
Newport News city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.02539	0.02749	0.03215	0.03720
Newport News city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.02894	0.03138	0.03304	0.03439

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Newport News city	3.4.8	Railroads	0.00178	0.00179	0.00165	0.00123
Newport News city	**3.4.8**	**TOTAL**	**14.65232**	**13.74015**	**13.01558**	**12.66669**
Norfolk city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.4.b	On-Site Incineration	0.07255	0.07936	0.09535	0.11167
Norfolk city	3.4.4.b	Open Burning	0.00238	0.00259	0.00310	0.00357
Norfolk city	3.4.5	Commercial Fuel Consumption, Coal	0.03858	0.04107	0.04053	0.04037
Norfolk city	3.4.5	Commercial Fuel Consumption, Distillate	0.13642	0.15976	0.18061	0.19963
Norfolk city	3.4.5	Commercial Fuel Consumption, LP Gas	0.01698	0.01806	0.01812	0.01879
Norfolk city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.34083	0.35411	0.42315	0.48242
Norfolk city	3.4.5	Commercial Fuel Consumption, Residual	0.03575	0.05470	0.05703	0.05925
Norfolk city	3.4.5	Commercial Fuel Consumption, Wood	0.00018	0.00018	0.00018	0.00018
Norfolk city	3.4.5	Industrial Fuel Consumption, Coal	2.71385	2.59501	2.61422	2.67399
Norfolk city	3.4.5	Industrial Fuel Consumption, Distillate	0.23068	0.22997	0.23894	0.26446
Norfolk city	3.4.5	Industrial Fuel Consumption, LP Gas	0.04417	0.04372	0.04725	0.05209
Norfolk city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.77697	0.83725	0.91262	0.98495
Norfolk city	3.4.5	Industrial Fuel Consumption, Residual	0.15202	0.15451	0.15467	0.16818
Norfolk city	3.4.5	Industrial Fuel Consumption, Wood	0.10804	0.11446	0.12729	0.14471
Norfolk city	3.4.5	Residential Fuel Consumption, Coal	0.00108	0.00110	0.00106	0.00101
Norfolk city	3.4.5	Residential Fuel Consumption, Distillate	0.05110	0.05089	0.04787	0.04212
Norfolk city	3.4.5	Residential Fuel Consumption, LP Gas	0.02349	0.02318	0.02540	0.02758
Norfolk city	3.4.5	Residential Fuel Consumption, Nat Gas	0.08617	0.09319	0.10635	0.11689
Norfolk city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.6	Structural Fires	0.00122	0.00139	0.00160	0.00168
Norfolk city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.7	Aviation Emissions, Commercial	0.51000	0.56271	0.69393	0.82388
Norfolk city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Norfolk city	3.4.7	Aviation Emissions, Military	0.63527	0.71621	0.77561	0.88455
Norfolk city	3.4.7	Commercial Marine Vessels	4.17492	4.30292	4.64481	5.17907
Norfolk city	3.4.7	Locomotive	1.15379	0.99903	0.83845	0.72644
Norfolk city	3.4.7	Military Marine Vessels	2.92962	2.07769	2.07769	2.07769
Norfolk city	3.4.8	Off-Road, Modeled, 2-Stroke	0.01069	0.01253	0.01281	0.01430
Norfolk city	3.4.8	Off-Road, Modeled, 4-Stroke	0.40073	0.36269	0.29012	0.30075
Norfolk city	3.4.8	Off-Road, Modeled, CNG	0.06858	0.05322	0.02704	0.01598
Norfolk city	3.4.8	Off-Road, Modeled, Diesel	4.42975	4.25160	3.49761	2.06003
Norfolk city	3.4.8	Off-Road, Modeled, LPG	0.61745	0.55638	0.23814	0.09318
Norfolk city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.01366	0.01850	0.02808	0.03489
Norfolk city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.02992	0.03238	0.03787	0.04382
Norfolk city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.03413	0.03700	0.03897	0.04056

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Norfolk city	3.4.8	Railroads	0.00091	0.00091	0.00084	0.00063
Norfolk city	**3.4.8**	**TOTAL**	**19.84189**	**18.83829**	**18.29731**	**17.68930**
Poquoson city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.4.b	On-Site Incineration	0.00266	0.00290	0.00345	0.00396
Poquoson city	3.4.4.b	Open Burning	0.01189	0.01297	0.00310	0.00357
Poquoson city	3.4.5	Commercial Fuel Consumption, Coal	0.00050	0.00053	0.00052	0.00052
Poquoson city	3.4.5	Commercial Fuel Consumption, Distillate	0.00176	0.00206	0.00233	0.00258
Poquoson city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00022	0.00023	0.00023	0.00024
Poquoson city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.00440	0.00457	0.00546	0.00623
Poquoson city	3.4.5	Commercial Fuel Consumption, Residual	0.00046	0.00071	0.00074	0.00076
Poquoson city	3.4.5	Commercial Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.5	Industrial Fuel Consumption, Coal	0.00358	0.00343	0.00345	0.00353
Poquoson city	3.4.5	Industrial Fuel Consumption, Distillate	0.00030	0.00030	0.00032	0.00035
Poquoson city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00006	0.00006	0.00006	0.00007
Poquoson city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00103	0.00111	0.00120	0.00130
Poquoson city	3.4.5	Industrial Fuel Consumption, Residual	0.00020	0.00020	0.00020	0.00022
Poquoson city	3.4.5	Industrial Fuel Consumption, Wood	0.00014	0.00015	0.00017	0.00019
Poquoson city	3.4.5	Residential Fuel Consumption, Coal	0.00006	0.00006	0.00005	0.00005
Poquoson city	3.4.5	Residential Fuel Consumption, Distillate	0.00260	0.00259	0.00244	0.00215
Poquoson city	3.4.5	Residential Fuel Consumption, LP Gas	0.00120	0.00118	0.00129	0.00140
Poquoson city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00439	0.00475	0.00542	0.00595
Poquoson city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.6	Structural Fires	0.00007	0.00008	0.00009	0.00009
Poquoson city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Commercial Marine Vessels	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Locomotive	0.00000	0.00000	0.00000	0.00000
Poquoson city	3.4.7	Military Marine Vessels	0.15385	0.10923	0.10923	0.10923
Poquoson city	3.4.8	Off-Road, Modeled, 2-Stroke	0.00117	0.00141	0.00145	0.00163
Poquoson city	3.4.8	Off-Road, Modeled, 4-Stroke	0.03384	0.03031	0.02460	0.02625
Poquoson city	3.4.8	Off-Road, Modeled, CNG	0.00050	0.00030	0.00017	0.00013
Poquoson city	3.4.8	Off-Road, Modeled, Diesel	0.02326	0.02412	0.02376	0.02061
Poquoson city	3.4.8	Off-Road, Modeled, LPG	0.00276	0.00250	0.00117	0.00057
Poquoson city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.00924	0.01252	0.01899	0.02360

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Poquoson city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.03096	0.03351	0.03919	0.04535
Poquoson city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.03529	0.03826	0.04029	0.04194
Poquoson city	**3.4.8**	**TOTAL**	**0.32638**	**0.29003**	**0.28937**	**0.30249**
Portsmouth city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.4.b	On-Site Incineration	0.04363	0.04786	0.05794	0.06870
Portsmouth city	3.4.4.b	Open Burning	0.00238	0.00259	0.00310	0.00357
Portsmouth city	3.4.5	Commercial Fuel Consumption, Coal	0.00894	0.00952	0.00939	0.00935
Portsmouth city	3.4.5	Commercial Fuel Consumption, Distillate	0.03161	0.03702	0.04185	0.04626
Portsmouth city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00393	0.00418	0.00420	0.00435
Portsmouth city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.07898	0.08205	0.09805	0.11179
Portsmouth city	3.4.5	Commercial Fuel Consumption, Residual	0.00828	0.01267	0.01322	0.01373
Portsmouth city	3.4.5	Commercial Fuel Consumption, Wood	0.00004	0.00004	0.00004	0.00004
Portsmouth city	3.4.5	Industrial Fuel Consumption, Coal	2.13080	2.03749	2.05257	2.09950
Portsmouth city	3.4.5	Industrial Fuel Consumption, Distillate	0.18112	0.18057	0.18761	0.20765
Portsmouth city	3.4.5	Industrial Fuel Consumption, LP Gas	0.03468	0.03433	0.03710	0.04090
Portsmouth city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.61005	0.65737	0.71655	0.77334
Portsmouth city	3.4.5	Industrial Fuel Consumption, Residual	0.11936	0.12132	0.12144	0.13205
Portsmouth city	3.4.5	Industrial Fuel Consumption, Wood	0.08483	0.08987	0.09994	0.11362
Portsmouth city	3.4.5	Residential Fuel Consumption, Coal	0.00047	0.00048	0.00046	0.00044
Portsmouth city	3.4.5	Residential Fuel Consumption, Distillate	0.02226	0.02216	0.02085	0.01835
Portsmouth city	3.4.5	Residential Fuel Consumption, LP Gas	0.01023	0.01010	0.01106	0.01201
Portsmouth city	3.4.5	Residential Fuel Consumption, Nat Gas	0.03753	0.04059	0.04632	0.05091
Portsmouth city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.6	Structural Fires	0.00129	0.00147	0.00169	0.00177
Portsmouth city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Portsmouth city	3.4.7	Commercial Marine Vessels	2.35770	2.43065	2.62512	2.94000
Portsmouth city	3.4.7	Locomotive	0.57690	0.49952	0.41922	0.36322
Portsmouth city	3.4.7	Military Marine Vessels	0.06846	0.04846	0.04846	0.04846
Portsmouth city	3.4.8	Off-Road, Modeled, 2-Stroke	0.00264	0.00336	0.00416	0.00493
Portsmouth city	3.4.8	Off-Road, Modeled, 4-Stroke	0.09900	0.09196	0.07666	0.08030
Portsmouth city	3.4.8	Off-Road, Modeled, CNG	0.01412	0.01085	0.00553	0.00330
Portsmouth city	3.4.8	Off-Road, Modeled, Diesel	0.13386	0.13421	0.12221	0.09235
Portsmouth city	3.4.8	Off-Road, Modeled, LPG	0.12063	0.10882	0.04664	0.01832

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.00844	0.01143	0.01734	0.02155
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.01287	0.01393	0.01629	0.01885
Portsmouth city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.01470	0.01594	0.01678	0.01747
Portsmouth city	3.4.8	Railroads	0.00030	0.00030	0.00028	0.00021
Portsmouth city	**3.4.8**	**TOTAL**	**6.82002**	**6.76112**	**6.92209**	**7.31728**
Suffolk city	3.4.4.a	Landfills	0.00970	0.01007	0.01103	0.01276
Suffolk city	3.4.4.b	On-Site Incineration	0.01979	0.02163	0.02595	0.03031
Suffolk city	3.4.4.b	Open Burning	0.00238	0.00259	0.00310	0.00357
Suffolk city	3.4.5	Commercial Fuel Consumption, Coal	0.00524	0.00557	0.00550	0.00548
Suffolk city	3.4.5	Commercial Fuel Consumption, Distillate	0.01851	0.02168	0.02451	0.02709
Suffolk city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00230	0.00245	0.00246	0.00255
Suffolk city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.04624	0.04805	0.05741	0.06546
Suffolk city	3.4.5	Commercial Fuel Consumption, Residual	0.00485	0.00742	0.00774	0.00804
Suffolk city	3.4.5	Commercial Fuel Consumption, Wood	0.00002	0.00002	0.00002	0.00002
Suffolk city	3.4.5	Industrial Fuel Consumption, Coal	0.49253	0.47096	0.47445	0.48530
Suffolk city	3.4.5	Industrial Fuel Consumption, Distillate	0.04186	0.04174	0.04336	0.04800
Suffolk city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00802	0.00794	0.00858	0.00945
Suffolk city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.14101	0.15195	0.16563	0.17876
Suffolk city	3.4.5	Industrial Fuel Consumption, Residual	0.02759	0.02804	0.02807	0.03052
Suffolk city	3.4.5	Industrial Fuel Consumption, Wood	0.01961	0.02077	0.02310	0.02626
Suffolk city	3.4.5	Residential Fuel Consumption, Coal	0.00031	0.00032	0.00031	0.00029
Suffolk city	3.4.5	Residential Fuel Consumption, Distillate	0.01476	0.01470	0.01383	0.01217
Suffolk city	3.4.5	Residential Fuel Consumption, LP Gas	0.00679	0.00670	0.00734	0.00797
Suffolk city	3.4.5	Residential Fuel Consumption, Nat Gas	0.02490	0.02692	0.03073	0.03377
Suffolk city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.6	Forest Wildfires	0.00849	0.00849	0.00849	0.00849
Suffolk city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.6	Structural Fires	0.00035	0.00040	0.00046	0.00048
Suffolk city	3.4.7	Aviation Emissions, Air Taxi	0.00006	0.00007	0.00008	0.00010
Suffolk city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Aviation Emissions, General Aviation	0.00041	0.00045	0.00056	0.00066
Suffolk city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Commercial Marine Vessels	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.7	Locomotive	0.65309	0.56549	0.47459	0.41119
Suffolk city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Suffolk city	3.4.8	Off-Road, Modeled, 2-Stroke	0.00342	0.00383	0.00422	0.00496
Suffolk city	3.4.8	Off-Road, Modeled, 4-Stroke	0.09744	0.08938	0.07414	0.07595
Suffolk city	3.4.8	Off-Road, Modeled, CNG	0.01261	0.00938	0.00459	0.00271

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Suffolk city	3.4.8	Off-Road, Modeled, Diesel	1.73524	1.65571	1.36213	0.82558
Suffolk city	3.4.8	Off-Road, Modeled, LPG	0.10479	0.09442	0.04067	0.01605
Suffolk city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.01928	0.02612	0.03964	0.04925
Suffolk city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.02400	0.02598	0.03039	0.03516
Suffolk city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.02743	0.02974	0.03132	0.03260
Suffolk city	3.4.8	Railroads	0.00659	0.00660	0.00608	0.00456
Suffolk city	**3.4.8**	**TOTAL**	**3.57963**	**3.40560**	**3.01048**	**2.45551**
Virginia Beach city	3.4.4.a	Landfills	0.00748	0.00777	0.00851	0.00984
Virginia Beach city	3.4.4.b	On-Site Incineration	0.11071	0.12077	0.14420	0.16705
Virginia Beach city	3.4.4.b	Open Burning	0.01096	0.01195	0.01427	0.01644
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Coal	0.04786	0.05095	0.05027	0.05008
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Distillate	0.16923	0.19819	0.22406	0.24765
Virginia Beach city	3.4.5	Commercial Fuel Consumption, LP Gas	0.02107	0.02240	0.02248	0.02331
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.42281	0.43928	0.52493	0.59846
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Residual	0.04435	0.06785	0.07075	0.07350
Virginia Beach city	3.4.5	Commercial Fuel Consumption, Wood	0.00023	0.00023	0.00023	0.00023
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Coal	1.37036	1.31035	1.32005	1.35023
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Distillate	0.11648	0.11613	0.12065	0.13354
Virginia Beach city	3.4.5	Industrial Fuel Consumption, LP Gas	0.02230	0.02208	0.02386	0.02630
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.39233	0.42277	0.46083	0.49735
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Residual	0.07676	0.07802	0.07810	0.08492
Virginia Beach city	3.4.5	Industrial Fuel Consumption, Wood	0.05456	0.05780	0.06427	0.07307
Virginia Beach city	3.4.5	Residential Fuel Consumption, Coal	0.00204	0.00208	0.00199	0.00191
Virginia Beach city	3.4.5	Residential Fuel Consumption, Distillate	0.09623	0.09584	0.09017	0.07933
Virginia Beach city	3.4.5	Residential Fuel Consumption, LP Gas	0.04424	0.04365	0.04783	0.05195
Virginia Beach city	3.4.5	Residential Fuel Consumption, Nat Gas	0.16230	0.17551	0.20029	0.22015
Virginia Beach city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.6	Structural Fires	0.00128	0.00146	0.00167	0.00176
Virginia Beach city	3.4.7	Aviation Emissions, Air Taxi	0.00459	0.00506	0.00625	0.00741
Virginia Beach city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.7	Aviation Emissions, General Aviation	0.00195	0.00215	0.00265	0.00315
Virginia Beach city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Virginia Beach city	3.4.7	Commercial Marine Vessels	0.09929	0.10215	0.10989	0.11889
Virginia Beach city	3.4.7	Locomotive	0.05442	0.04712	0.03955	0.03427
Virginia Beach city	3.4.7	Military Marine Vessels	3.67692	2.60769	2.60769	2.60769
Virginia Beach city	3.4.8	Off-Road, Modeled, 2-Stroke	0.02621	0.03116	0.03522	0.04138

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Virginia Beach city	3.4.8	Off-Road, Modeled, 4-Stroke	0.73609	0.67507	0.56086	0.58917
Virginia Beach city	3.4.8	Off-Road, Modeled, CNG	0.05804	0.04036	0.02135	0.01403
Virginia Beach city	3.4.8	Off-Road, Modeled, Diesel	4.58396	4.41711	3.68328	2.27004
Virginia Beach city	3.4.8	Off-Road, Modeled, LPG	0.40088	0.36356	0.16418	0.06974
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.07593	0.10285	0.15607	0.19392
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.15793	0.17094	0.19993	0.23133
Virginia Beach city	3.4.8	Off-Road, Modeled, Marine, Diesel	0.18020	0.19537	0.20572	0.21416
Virginia Beach city	3.4.8	Railroads	0.00007	0.00007	0.00007	0.00005
Virginia Beach city	**3.4.8**	**TOTAL**	**13.23004**	**12.00575**	**11.26212**	**10.10227**
Williamsburg city	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.4.b	On-Site Incineration	0.00297	0.00324	0.00386	0.00447
Williamsburg city	3.4.4.b	Open Burning	0.00597	0.00651	0.00156	0.00179
Williamsburg city	3.4.5	Commercial Fuel Consumption, Coal	0.00659	0.00702	0.00692	0.00690
Williamsburg city	3.4.5	Commercial Fuel Consumption, Distillate	0.02330	0.02729	0.03085	0.03410
Williamsburg city	3.4.5	Commercial Fuel Consumption, LP Gas	0.00290	0.00309	0.00310	0.00321
Williamsburg city	3.4.5	Commercial Fuel Consumption, Nat Gas	0.05822	0.06049	0.07228	0.08241
Williamsburg city	3.4.5	Commercial Fuel Consumption, Residual	0.00611	0.00934	0.00974	0.01012
Williamsburg city	3.4.5	Commercial Fuel Consumption, Wood	0.00003	0.00003	0.00003	0.00003
Williamsburg city	3.4.5	Industrial Fuel Consumption, Coal	0.02560	0.02448	0.02466	0.02522
Williamsburg city	3.4.5	Industrial Fuel Consumption, Distillate	0.00218	0.00217	0.00225	0.00249
Williamsburg city	3.4.5	Industrial Fuel Consumption, LP Gas	0.00042	0.00041	0.00045	0.00049
Williamsburg city	3.4.5	Industrial Fuel Consumption, Nat Gas	0.00733	0.00790	0.00861	0.00929
Williamsburg city	3.4.5	Industrial Fuel Consumption, Residual	0.00143	0.00146	0.00146	0.00159
Williamsburg city	3.4.5	Industrial Fuel Consumption, Wood	0.00102	0.00108	0.00120	0.00136
Williamsburg city	3.4.5	Residential Fuel Consumption, Coal	0.00006	0.00006	0.00006	0.00005
Williamsburg city	3.4.5	Residential Fuel Consumption, Distillate	0.00269	0.00268	0.00252	0.00222
Williamsburg city	3.4.5	Residential Fuel Consumption, LP Gas	0.00124	0.00122	0.00134	0.00145
Williamsburg city	3.4.5	Residential Fuel Consumption, Nat Gas	0.00454	0.00491	0.00561	0.00616
Williamsburg city	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Forest Wildfires	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.6	Structural Fires	0.00008	0.00009	0.00010	0.00011
Williamsburg city	3.4.7	Aviation Emissions, Air Taxi	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, Commercial	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, General Aviation	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Aviation Emissions, Military	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.7	Commercial Marine Vessels	0.11543	0.11875	0.12775	0.13821
Williamsburg city	3.4.7	Locomotive	0.27212	0.23562	0.19775	0.17133

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
Williamsburg city	3.4.7	Military Marine Vessels	0.00000	0.00000	0.00000	0.00000
Williamsburg city	3.4.8	Off-Road, Modeled, 2-Stroke	0.00174	0.00207	0.00250	0.00304
Williamsburg city	3.4.8	Off-Road, Modeled, 4-Stroke	0.03581	0.03294	0.02791	0.02932
Williamsburg city	3.4.8	Off-Road, Modeled, CNG	0.00163	0.00115	0.00061	0.00040
Williamsburg city	3.4.8	Off-Road, Modeled, Diesel	0.02845	0.02923	0.02813	0.02325
Williamsburg city	3.4.8	Off-Road, Modeled, LPG	0.01191	0.01078	0.00479	0.00202
Williamsburg city	3.4.8	Railroads	0.00251	0.00252	0.00232	0.00174
Williamsburg city	**3.4.8**	**TOTAL**	**0.62229**	**0.59652**	**0.56834**	**0.56278**
York County	3.4.4.a	Landfills	0.00000	0.00000	0.00000	0.00000
York County	3.4.4.b	On-Site Incineration	0.01450	0.01581	0.01884	0.02176
York County	3.4.4.b	Open Burning	0.01189	0.01297	0.00310	0.00357
York County	3.4.5	Commercial Fuel Consumption, Coal	0.00441	0.00469	0.00463	0.00461
York County	3.4.5	Commercial Fuel Consumption, Distillate	0.01559	0.01826	0.02064	0.02282
York County	3.4.5	Commercial Fuel Consumption, LP Gas	0.00194	0.00206	0.00207	0.00215
York County	3.4.5	Commercial Fuel Consumption, Nat Gas	0.03895	0.04047	0.04836	0.05514
York County	3.4.5	Commercial Fuel Consumption, Residual	0.00409	0.00625	0.00652	0.00677
York County	3.4.5	Commercial Fuel Consumption, Wood	0.00002	0.00002	0.00002	0.00002
York County	3.4.5	Industrial Fuel Consumption, Coal	0.15448	0.14771	0.14880	0.15221
York County	3.4.5	Industrial Fuel Consumption, Distillate	0.01313	0.01309	0.01360	0.01505
York County	3.4.5	Industrial Fuel Consumption, LP Gas	0.00251	0.00249	0.00269	0.00296
York County	3.4.5	Industrial Fuel Consumption, Nat Gas	0.04423	0.04766	0.05195	0.05606
York County	3.4.5	Industrial Fuel Consumption, Residual	0.00865	0.00879	0.00880	0.00957
York County	3.4.5	Industrial Fuel Consumption, Wood	0.00615	0.00652	0.00725	0.00824
York County	3.4.5	Residential Fuel Consumption, Coal	0.00028	0.00029	0.00027	0.00026
York County	3.4.5	Residential Fuel Consumption, Distillate	0.01327	0.01322	0.01243	0.01094
York County	3.4.5	Residential Fuel Consumption, LP Gas	0.00610	0.00602	0.00660	0.00716
York County	3.4.5	Residential Fuel Consumption, Nat Gas	0.02238	0.02420	0.02762	0.03036
York County	3.4.5	Residential Fuel Consumption, Wood	0.00000	0.00000	0.00000	0.00000
York County	3.4.6	Forest Wildfires	0.00027	0.00027	0.00027	0.00027
York County	3.4.6	Prescribed Burning	0.00000	0.00000	0.00000	0.00000
York County	3.4.6	Structural Fires	0.00013	0.00015	0.00017	0.00018
York County	3.4.7	Aviation Emissions, Air Taxi	0.00143	0.00158	0.00195	0.00231
York County	3.4.7	Aviation Emissions, Commercial	0.05734	0.06327	0.07802	0.09263
York County	3.4.7	Aviation Emissions, General Aviation	0.00648	0.00715	0.00882	0.01047
York County	3.4.7	Aviation Emissions, Military	0.00019	0.00021	0.00023	0.00026
York County	3.4.7	Commercial Marine Vessels	0.11741	0.12082	0.13004	0.14128
York County	3.4.7	Locomotive	0.30478	0.26390	0.22148	0.19189
York County	3.4.7	Military Marine Vessels	0.29077	0.20615	0.20615	0.20615

Table 7.2-6						
Combined Area and Nonroad Mobile Source NOx Emission - Detailed, Daily (tons/day)						
FIPS_NAME	**Chapter**	**Category Description**	**2002**	**2005**	**2011**	**2018**
York County	3.4.8	Off-Road, Modeled, 2-Stroke	0.01194	0.01412	0.01491	0.01720
York County	3.4.8	Off-Road, Modeled, 4-Stroke	0.29366	0.26323	0.21379	0.22651
York County	3.4.8	Off-Road, Modeled, CNG	0.00603	0.00421	0.00224	0.00148
York County	3.4.8	Off-Road, Modeled, Diesel	0.86854	0.84427	0.71838	0.46373
York County	3.4.8	Off-Road, Modeled, LPG	0.05176	0.04649	0.02024	0.00855
York County	3.4.8	Off-Road, Modeled, Marine, 2-Stroke	0.02812	0.03809	0.05780	0.07182
York County	3.4.8	Off-Road, Modeled, Marine, 4-Stroke	0.06401	0.06928	0.08103	0.09376
York County	3.4.8	Off-Road, Modeled, Marine, Diesel	0.07301	0.07916	0.08336	0.08678
York County	3.4.8	Railroads	0.00251	0.00252	0.00232	0.00174
York County	**3.4.8**	**TOTAL**	**2.54096**	**2.39539**	**2.22539**	**2.02666**

7.3. Site Specific Area Source Emissions Estimates

Area and facility specific emissions estimates have been developed and made available for use to supplement the general regional estimates of ozone precursor emissions. These enhanced emissions estimates have been provided for military activities and port facilities.

7.3.1. Military Activities

A special effort was made as part of the maintenance plan effort to obtain and include updated information on the extensive military activities that take place in the Hampton Roads area. As a result, a majority of the military installations in the area provided updated activity and/or emissions information that have been included in the maintenance plan emissions calculations. This includes a region-wide update of military vessel operations, base-specific aircraft operations, as well as other support activities and related emissions. These estimates have been included in the regional area and mobile source inventories, and can be identified separately as needed for future conformity analysis or other purposes.

Table 7.3.1-1
Military Marine Vessel Emissions

Locality	2002 Total Marine Vessel Emissions (Ship & Tug)					
	NO_X (Tons/yr)	SO_X (Tons/yr)	CO (Tons/yr)	CO_2 (Tons/yr)	HC (Tons/yr)	PM (Tons/yr)
Norfolk	761.7	350.9	98.4	142219.7	27.1	51.0
VA Beach	956.0	340.7	98.0	140177.5	22.4	32.4
Portsmouth	17.8	9.4	3.7	3601.7	1.1	2.1
Hampton	145.1	60.5	12.5	25799.9	2.5	5.6
Gloucester	32.0	13.7	2.8	6510.8	0.4	1.1
Yorktown/York County	75.6	30.0	8.5	13213.7	1.7	3.0
Poquoson	40.0	17.2	3.5	7468.8	0.6	1.4
Newport News	156.9	24.4	58.9	NA	10.3	NA
Locality	**2005 Total Marine Vessel Emissions (Ship & Tug)**					
	NO_X (Tons/yr)	SO_X (Tons/yr)	CO (Tons/yr)	CO_2 (Tons/yr)	HC (Tons/yr)	PM (Tons/yr)
Norfolk	540.2	248.9	69.8	100,865.0	19.2	36.2
VA Beach	678.0	241.6	69.5	99,416.7	15.9	23.0
Portsmouth	12.6	6.7	2.6	2,554.4	0.8	1.5
Hampton	102.9	42.9	8.9	18,297.8	1.8	4.0
Gloucester	22.7	9.7	2.0	4,617.6	0.3	0.8
Yorktown/York County	53.6	21.3	6.0	9,371.4	1.2	2.1
Poquoson	28.4	12.2	2.5	5,297.0	0.4	1.0
Newport News	156.9	24.4	58.9	NA	10.3	NA

Table 7.3.1-2 Military Aircraft at Military Airfields, Annual (tons/year)						
Jurisdiction	**FIPS**	**Description**	**VOC**	**CO**	**NOx**	**Comment**
James City County	95	Fort Eustis	161.762	162.403	21.618	Army provided updated CY2002 operation data. Emissions estimated using 1990 emission factory methodology.
York County	199	Camp Perry	0.234	0.590	0.069	Based on 1990 Operation Data.
Chesapeake City	550	Fentress NAS	26.400	57.900	209.200	Navy provided CY 2002 Emission Data. Source, Table E-3-2 of "Air Quality Analysis for NAS Oceana, Virginia", April 2003.
		Oceana NAS	621.400	1733.200	562.900	CY 2002 Emission Data provided. Source, Table E-3-2 of "Air Quality Analysis for NAS Oceana, Virginia", April 2003
		TOTAL	**647.8**	**1791.1**	**772.1**	
Hampton City	650	Langley AFB	33.070	635.909	459.809	CY2002 LTO operational data provided by Langley AFB. DEQ calculated emissions using default emission factors. Facility also provided actual emission estimate but provided no supporting documentation so DEQ was unable to use that data.
Norfolk City	710	Naval Station Norfolk	91.220	281.708	231.874	Navy provided CY2002 operation data. Emissions modeled with EDMS 4.22 Air carrier activity for this facility was estimated and included in military total.

Table 7.3.1-3 Military Aircraft, Daily (tons/day)						
Jurisdiction	**FIPS**	**Description**	**VOC**	**CO**	**NOx**	**Comment**
James City County	95	Fort Eustis	0.44318	0.44494	0.05923	Army provided updated CY2002 operation data. Emissions estimated using 1990 emission factory methodology.
York County	199	Camp Perry	0.00064	0.00162	0.00019	Base on 1990 Operation Data.
Chesapeake City	550	Fentress NAS	0.07233	0.15863	0.57315	CY 2002 Emission Data provided. Source, Table E-3-2 of "Air Quality Analysis for NAS Oceana, Virginia", April 2003
		Langley AFB	1.70247	4.74849	1.54219	CY 2002 Emission Data provided. Source, Table E-3-2 of "Air Quality Analysis for NAS Oceana, Virginia", April 2003
		TOTAL	**1.7748**	**4.90712**	**2.11534**	
Hampton City	650	Langley AFB	0.09060	1.74222	1.25975	CY2002 LTO operational data provided by Langley AFB. DEQ calculated emissions using default emission factors. Facility also provided actual emission estimate but provided no supporting documentation so was unable to use that data.
Norfolk City	710	Naval Station Norfolk	0.24992	0.77180	0.63527	Navy provided CY2002 operation data and emissions modeled with EDMS 4.2 Air carrier data for this facility were

						estimated and included in military total.

Table 7.3.1-4
General Aviation at Military Airfields, Annual (tons/year)

Jurisdiction	FIPS	Description	VOC	CO	NOx	Comment
James City County	95	Fort Eustis	0.058	1.820	0.010	Army provided updated CY2002 military operation data but no updated civilian operation data, so kept civilian operation data the same as previously submitted.
York County	199	Camp Perry	0.114	3.583	0.019	Based on 1990 Operation Data.
Hampton City	650	Langley AFB	0.760	23.866	0.129	CY2002 LTO operational data provided by Langley AFB. DEQ calculated emissions using default emission factors. Facility also provided actual emission estimate but provided no supporting documentation so was unable to use that data.

Table 7.3.1-5
General Aviation, Daily (tons/day)

Jurisdiction	FIPS	Description	VOC	CO	NOx	Comment
James City County	95	Fort Eustis	0.00016	0.00499	0.00003	Army provided updated CY2002 military operation data but no updated civilian operation data, so kept civilian operation data the same as previously submitted.
York County	199	Camp Perry	0.00031	0.00982	0.00005	Based on 1990 Operation Data.
Hampton City	650	Langley AFB	0.00208	0.06539	0.00035	CY2002 LTO operational data provided by Langley AFB. DEQ calculated emissions using default emission factors. Facility also provided actual emission estimate but provided no supporting documentation so was unable to use that data.

Table 7.3.1-6
Commercial Air Carriers at Military Air Fields: Aviation, Annual (tons/year)

Jurisdiction	Description	VOC	CO	NOx	Comment
Hampton City	Langley Air Force Base	0.632	2.023	1.597	2002 FAA Data, Emissions Estimated with EDMS 4.2
Norfolk City	Norfolk Naval Station	16.45	32.296	16.782	2002 FAA Data, Emissions Estimated with EDMS 4.2

Table 7.3.1-7
Commercial Aviation, Daily (tons/day)

Jurisdiction	Description	VOC	CO	NOx	Comment
Hampton City	Langley Air Force Base	0.00173	0.00554	0.0043 8	2002 FAA Data, Emissions Estimated with EDMS 4.2
Norfolk City	Norfolk Naval Station	0.04507	0.08848	0.0459 8	2002 FAA Data, Emissions Estimated with EDMS 4.2

Table 7.3.1-8 On-Road Mobile Emissions from Military Facilities						
	2005 (Tons/Day)			2005 (Tons/Year)		
Facility/Source	**VOC**	**NO_X**	**CO**	**VOC**	**NO_X**	**CO**
Fort Eustis						
GOV	0.03	0.07	0.30	7.87	18.12	78.65
POV	0.11	0.25	2.14	29.51	64.61	557.42
Facility Total:	**0.14**	**0.32**	**2.45**	**37.38**	**82.72**	**636.07**
Naval Amphibious Base Little Creek						
GOV	0.01	0.02	0.11	2.07	3.96	28.36
POV						
Facility Total:	**0.01**	**0.02**	**0.11**	**2.07**	**3.96**	**28.36**
Naval Air Station Oceana						
GOV	0.02	0.02	0.21	4.02	5.65	55.49
POV						
Facility Total:	**0.02**	**0.02**	**0.21**	**4.02**	**5.65**	**55.49**
Naval Station Norfolk						
GOV	0.07	0.13	1.00	19.13	32.88	259.34
POV						
Facility Total:	**0.07**	**0.13**	**1.00**	**19.13**	**32.88**	**259.34**
Norfolk Naval Shipyard						
GOV	0.01	0.02	0.19	3.44	4.71	48.72
POV						
Facility Total:	**0.01**	**0.02**	**0.19**	**3.44**	**4.71**	**48.72**
Naval Weapons Station Yorktown						
GOV	0.01	0.02	0.12	2.45	4.60	31.75
POV						
Facility Total:	**0.01**	**0.02**	**0.12**	**2.45**	**4.60**	**31.75**
REGIONAL TOTAL:	**0.26**	**0.52**	**4.08**	**68.48**	**134.52**	**1059.74**

7.3.2. Port Facilities

The Virginia Port Authority has provided detailed activity and emissions data on their existing facilities, as well as a future planned port facility in the Hampton Roads area. These estimates are summarized in Tables 7.3.2-1 and 7.3.2-2. Due to ongoing efforts by the operators of these ports to maintain and/or reduce emissions levels at their existing facilities, along with the assumption that the new port facility will account for much of the potential new growth in regional emissions associated with port activities, the emissions at the existing facilities have been held constant throughout the maintenance plan period.

Table 7.3.2-1 Annual Emissions from Port Facilities, Tons per Year

Facility/Source	2002		2005		2011		2018	
	VOC	NO_X	VOC	NO_X	VOC	NO_X	VOC	NO_X
Newport News Marine Terminal								
Terminal Equipment	31.9	188.8	30.5	176.8	30.5	176.8	30.5	176.8
On-Road Vehicles	0.5	0.3	0.6	0.4	0.6	0.4	0.6	0.4
Facility Total:	**32.4**	**189.1**	**31.1**	**177.3**	**31.1**	**177.3**	**31.1**	**177.3**
Norfolk International Terminal								
Terminal Equipment	148.7	703.5	154.2	834.5	154.2	834.5	154.2	834.5
Locomotives	2.0	34.5	4.0	69.0	4.0	69.0	4.0	69.0
On-Road Vehicles	3.2	2.0	3.8	2.3	3.8	2.3	3.8	2.3
Facility Total:	**153.9**	**740.0**	**162.0**	**905.9**	**162.0**	**905.9**	**162.0**	**905.9**
Portsmouth Marine Terminal								
Terminal Equipment	48.5	395.8	37.6	333.6	37.6	333.6	37.6	333.6
On-Road Vehicles	1.2	0.7	1.6	1.0	1.6	1.0	1.6	1.0
Facility Total:	**49.7**	**396.5**	**39.2**	**334.6**	**39.2**	**334.6**	**39.2**	**334.6**
Craney Island Terminal (Planned Facility)								
Construction Equipment	***NOT APPLICABLE***				>1.0	1,022	0.0	0.0
Terminal Equipment					0.0	0.0	49.8	343.6
Locomotives					0.0	0.0	3.5	57.3
On-Road Vehicles					0.0	0.0	20.9	80.0
Marine Vessels					0.0	0.0	8.6	566.3
Facility Total:	**0.0**	**0.0**	**0.0**	**0.0**	**>1.0**	**1,022**	**82.8**	**1,047.2**
REGIONAL TOTAL:	**236.0**	**1,325.6**	**232.3**	**1,417.8**	**233.3**	**2,439.8**	**315.1**	**2,465.0**

Table 7.3.2-2 Ozone Season Week Day Emissions from Port Facilities, Tons per Day								
Facility/Source	**2002**		**2005**		**2011**		**2018**	
	VOC	**NO_X**	**VOC**	**NO_X**	**VOC**	**NO_X**	**VOC**	**NO_X**
Newport News Marine Terminal								
Terminal Equipment	0.123	0.726	0.117	0.680	0.117	0.680	0.117	0.680
On-Road Vehicles	0.002	0.001	0.002	0.002	0.002	0.002	0.002	0.002
Facility Total:	**0.125**	**0.727**	**0.120**	**0.682**	**0.120**	**0.682**	**0.120**	**0.682**
Norfolk International Terminal								
Terminal Equipment	0.572	2.706	0.593	3.210	0.593	3.210	0.593	3.210
Locomotives	0.008	0.133	0.015	0.265	0.015	0.265	0.015	0.265
On-Road Vehicles	0.012	0.008	0.015	0.009	0.015	0.009	0.015	0.009
Facility Total:	**0.592**	**2.846**	**0.623**	**3.484**	**0.623**	**3.484**	**0.623**	**3.484**
Portsmouth Marine Terminal								
Terminal Equipment	0.187	1.522	0.145	1.283	0.145	1.283	0.145	1.283
On-Road Vehicles	0.005	0.003	0.006	0.004	0.006	0.004	0.006	0.004
Facility Total:	**0.191**	**1.525**	**0.151**	**1.287**	**0.151**	**1.287**	**0.151**	**1.287**
Craney Island Terminal (Planned Facility)								
Construction Equipment	***NOT APPLICABLE***				0.004	3.900	0.000	0.000
Terminal Equipment					0.000	0.000	0.200	1.350
Locomotives					0.000	0.000	0.014	0.240
On-Road Vehicles					0.000	0.000	0.100	0.400
Marine Vessels					0.000	0.000	0.030	1.860
Facility Total:	**0.000**	**0.000**	**0.000**	**0.000**	**0.004**	**3.900**	**0.300**	**3.900**
REGIONAL TOTAL:	**0.910**	**5.100**	**0.890**	**5.450**	**0.898**	**9.353**	**1.194**	**9.353**

The following tables document the method used to blend the line-item Port Facilities emissions with the Nonroad emissions.

Table 7.3.2-3			
VOC Emissions, Tons per Typical Summer Weekday			
Year	**Port Facilities**	**Nonroad (Modeled)**	**Total (Augmented)**
2002	0.910	45.633	46.543
2005	0.890	41.430	42.320
2011	0.898	33.014	33.912
2018	1.194	30.121	31.315

Table 7.3.2-4			
NO_X Emissions, Tons per Typical Summer Weekday			
Year	**Port Facilities**	**Nonroad (Modeled)**	**Total (Augmented)**
2002	5.100	25.902	31.002
2005	5.450	24.758	30.208
2011	9.353	19.763	29.116
2018	9.353	13.740	23.093

Table 7.3.2-5			
CO Emissions, Tons per Typical Summer Weekday			
Year	**Port Facilities**	**Nonroad (Modeled)**	**Total (Augmented)**
2002	0.000	394.471	394.471
2005	0.000	417.125	417.125
2011	0.000	445.663	445.663
2018	0.000	480.778	480.778

8. Emission Reduction Calculations

This section contains information concerning the various control measures that have been included and produce emissions reductions in the Hampton Roads maintenance plan. When combined, these measures are predicted to keep the area below the established attainment emissions caps established by the plan. A total of nine measures are identified, quantified, and documented in this section. These measures range from federal control programs on motor vehicles and nonroad engines to local controls on industries, gasoline stations, and open burning. These measures and the associated emissions benefits are provided in Table 8-1.

Table 8-1 Maintenance Plan Control Measures and Emission Reductions

Emission Control Measure	Emissions Reductions (tons/day)	
	2011	2018
Volatile Organic Compounds (VOC)		
Federal Tier 2/Low Sulfur Gasoline Rule	1.925 tons/day	4.168 tons/day
Federal Heavy Duty Diesel Engine Rule	0.071 tons/day	0.187 tons/day
Motor Vehicle Vapor Recovery (ORVR)	2.622 tons/day	3.547 tons/day
Reformulated Gasoline (On-Road)	5.228 tons/day	3.581 tons/day
Federal Nonroad Engine/Equipment Rules	8.406 tons/day	11.298 tons/day
Stage I Vapor Recovery	0.729 tons/day	0.723 tons/day
Open burning restrictions	0.245 tons/day	0.282 tons day
CTG RACT for Graphic Arts	0.212 tons/day	0.251 tons/day
CTG RACT Solvent Metal Cleaning Restrictions	0.613 tons/day	0.712 tons/day
CTG RACT Cutback Asphalt Restrictions	0.002 tons/day	0.003 tons/day
TOTAL VOC REDUCTIONS:	20.053 tons/day	24.752 tons/day
Nitrogen Oxides (NO_X)		
Federal Tier 2/Low Sulfur Gasoline Rule	11.199 tons/day	20.884 tons/day
Federal Heavy Duty Diesel Engine Rule	5.159 tons/day	12.934 tons/day
Reformulated Gasoline (On-Road)	0.328 tons/day	0.243 tons/day
Federal Nonroad Engine/Equipment Rules	4.995 tons/day	11.019 tons/day
Open Burning Restrictions	0.051 tons/day	0.059 tons/day
TOTAL NO_X REDUCTIONS:	21.732 tons/day	45.139 tons/day
Carbon Monoxide (CO)		
Federal Tier 2/Low Sulfur Gasoline Rule	30.129 tons/day	59.970 tons/day
Federal Heavy Duty Diesel Engine Rule	1.829 tons/day	3.645 tons/day
Reformulated Gasoline (On-Road)	26.933 tons/day	23.280 tons/day
TOTAL CO REDUCTIONS:	58.891 tons/day	86.895 tons/day

Please note that due to the limitations of the EPA models used to develop some of these estimates, the reductions identified differ in what they represent. Some like the federal vehicle and nonroad estimates represent reductions from attainment (baseline) estimates. Others, like the local controls are estimates from uncontrolled emission estimates during the selected projection years. Therefore the reduction totals presented here, do not exactly match the overall area reductions predicted in the maintenance plan and used for the maintenance emissions tests.

Control Measure: Federal Tier 2 Vehicle and Low Sulfur Fuel Standards

Measure Name: Federal Tier 2 Vehicle and Low Sulfur Fuel Standards

Description:
The following national motor vehicle emission reduction measures have or will be implemented that will reduce mobile source emissions in the Hampton Roads area. These measures include:

* Federal Tier 2 Vehicle & Low Sulfur Fuel Standards

VOC

Reductions in 2011 (tons/day)	1.925
Reductions in 2018 (tons/day)	4.169

NOX

Reductions in 2011 (tons/day)	11.199
Reductions in 2018 (tons/day)	20.884

CO

Reductions in 2011 (tons/day)	30.129
Reductions in 2018 (tons/day)	59.970

Assumptions: The following calculations and benefits are based on the EPA Mobile6 emissions model.

Emission Reductions

VOC Calculations

EMISSIONS SCENARIO	VOC EMISSIONS	
2011 w/o Tier2	38.511	tpd
2011 w/ Tier2	36.586	tpd
2018 w/o Tier2	30.483	tpd
2018 w/ Tier2	26.314	tpd
Total daily VOC reductions (2011):	*1.925*	*tpd*
Total daily VOC reductions (2018):	*4.169*	*tpd*

CO Calculations

EMISSIONS SCENARIO	CO EMISSIONS	
2011 w/o Tier2	475.752	tpd
2011 w/ Tier2	445.623	tpd
2018 w/o Tier2	462.141	tpd
2018 w/ Tier2	402.171	tpd
Total daily CO reductions (2011):	*30.129*	*tpd*
Total daily CO reductions (2018):	*59.970*	*tpd*

NOx Calculations

EMISSIONS SCENARIO	NOx EMISSIONS	
2011 w/o Tier2	58.066	tpd
2011 w/ Tier2	46.867	tpd
2018 w/o Tier2	49.254	tpd
2018 w/ Tier2	28.37	tpd
Total daily NOX reductions (2011):	*11.199*	*tpd*
Total daily NOX reductions (2018):	*20.884*	*tpd*

Implementation Schedule and Status

Currently implemented by Federal regulations.

Control Measure: Federal Heavy Duty Diesel Engine Standards

Measure Name: Federal Heavy Duty Diesel Engine Standards

Description:
The following national motor vehicle emission reduction measures have or will be implemented that will reduce mobile source emissions in the Hampton Roads area. These measures include:

* Heavy Duty Diesel Engine Standards

VOC

Reductions in 2011 (tons/day)	0.071
Reductions in 2018 (tons/day)	0.187

NOX

Reductions in 2011 (tons/day)	5.159
Reductions in 2018 (tons/day)	12.934

CO

Reductions in 2011 (tons/day)	1.829
Reductions in 2018 (tons/day)	3.645

Assumptions: The following calculations and benefits are based on the EPA Mobile6 emissions model**.**

Emission Reductions

VOC Calculations

EMISSIONS SCENARIO	VOC EMISSIONS	
2011 w/o HDDV	36.657	tpd
2011 w/ HDDV	36.586	tpd
2018 w/o HDDV	26.501	tpd
2018 w/ HDDV	26.314	tpd
Total daily VOC reductions (2011):	*0.071*	*tpd*
Total daily VOC reductions (2018):	*0.187*	*tpd*

CO Calculations

EMISSIONS SCENARIO	CO EMISSIONS	
2011 w/o HDDV	447.452	tpd
2011 w/ HDDV	445.623	tpd
2018 w/o HDDV	405.816	tpd
2018 w/ HDDV	402.171	tpd
Total daily CO reductions (2011):	*1.829*	*tpd*
Total daily CO reductions (2018):	*3.645*	*tpd*

NOx Calculations

EMISSIONS SCENARIO	NOx EMISSIONS	
2011 w/o HDDV	52.026	tpd
2011 w/ HDDV	46.867	tpd
2018 w/o HDDV	41.304	tpd
2018 w/ HDDV	28.370	tpd
Total daily NOX reductions (2011):	*5.159*	*tpd*
Total daily NOX reductions (2018):	*12.934*	*tpd*

Implementation Schedule and Status

Currently implemented by Federal regulations.

Control Measure: Motor Vehicle Vapor Recovery Controls

Measure Name: Motor Vehicle Vapor Recovery Controls

Description:
The following national motor vehicle refueling measures have or will be implemented that will reduce refueling emissions in the Hampton Roads area. These measures include:

* Vehicle Onboard Refueling Vapor Recovery Controls

VOC

Reductions in 2011 (tons/day)	2.622
Reductions in 2018 (tons/day)	3.547

NOX

Reductions in 2011 (tons/day)	N/A
Reductions in 2018 (tons/day)	N/A

Assumptions

· The following calculations and benefits are based on the EPA Mobile6 emissions model.

Emission Reductions

2011

EMISSIONS SCENARIO	VOC EMISSIONS	
2005 Attainment Year	5.032	tpd
2011 w/ Onboard VR	2.410	tpd
Total daily VOC reductions:	*2.622*	*tpd*

2018

EMISSIONS SCENARIO	VOC EMISSIONS	
2005 Attainment Year	5.032	tpd
2018 w/ Onboard VR	1.485	tpd
Total daily VOC reductions:	*3.547*	*tpd*

Implementation Schedule and Status

Currently implemented by Federal regulations.

Control Measure: Reformulated Gasoline (Onroad)

Measure Name: Reformulated Gasoline (Onroad)

Description:
The following motor vehicle emission reduction measure reflects emission benefits resulting from the use of reformulated gasoline in highway vehicles in the Hampton Roads area.

VOC

Reductions in 2011 (tons/day)	5.228
Reductions in 2018 (tons/day)	3.581

NOX

Reductions in 2011 (tons/day)	0.328
Reductions in 2018 (tons/day)	0.243

CO

Reductions in 2011 (tons/day)	26.933
Reductions in 2018 (tons/day)	23.280

Assumptions

· The following calculations and benefits are based on the EPA Mobile6 emissions model.

Emission Reductions

VOC Calculations

EMISSIONS SCENARIO	VOC EMISSIONS	
2011 w/o RFG	41.814	tpd
2011 w/ RFG	36.586	tpd
2018 w/o RFG	29.895	tpd
2018 w/ RFG	26.314	tpd
Total daily VOC reductions (2011):	*5.228*	*tpd*
Total daily VOC reductions (2018):	*3.581*	*tpd*

CO Calculations

EMISSIONS SCENARIO	CO EMISSIONS	
2011 w/o RFG	472.556	tpd
2011 w/ RFG	445.623	tpd
2018 w/o RFG	425.451	tpd
2018 w/ RFG	402.171	tpd
Total daily CO reductions (2011):	*26.933*	*tpd*
Total daily CO reductions (2018):	*23.280*	*tpd*

NOx Calculations

EMISSIONS SCENARIO	NOx EMISSIONS	
2011 w/o RFG	47.195	tpd
2011 w/ RFG	46.867	tpd
2018 w/o RFG	28.613	tpd
2018 w/ RFG	28.370	tpd
Total daily NOX reductions (2011):	*0.328*	*tpd*
Total daily NOX reductions (2018):	*0.243*	*tpd*

Implementation Schedule and Status

Reformulated gasoline not expanded to newly designated 8-hour ozone nonattainment jurisdictions.

Control Measure: Federal Nonroad Engine/Equipment Standards

Measure Name: Nonroad Engine/Equipment Standards

Description:
The following national nonroad engine and equipment standards have or will be implemented that will reduce nonroad emissions in the Hampton Roads area. These measures include:

* Diesel engine standards
* Gasoline engine standards

VOC

Reductions in 2011 (tons/day)	**8.406**
Reductions in 2018 (tons/day)	**11.298**

NOX

Reductions in 2011 (tons/day)	**4.995**
Reductions in 2018 (tons/day)	**11.019**

Assumptions

· The following calculations and benefits are based on the EPA Nonroad emissions model.

Emission Reductions (VOC)

2011

EMISSIONS SCENARIO	VOC EMISSIONS
2005 Attainment Year	41.41934
2011 w/Nonroad Controls**	**33.0137**
Total daily VOC reductions:	***8.40563***

2018

EMISSIONS SCENARIO	VOC EMISSIONS
2005 Attainment Year	41.41934
2018 w/Nonroad Controls**	**30.1211**
Total daily VOC reductions:	***11.2982***

Emission Reduction s (NOx)

2011

EMISSIONS SCENARIO	NOX EMISSIONS
2005 Attainment Year	24.75793
2011 w/Nonroad Controls**	**19.7627**
Total daily NOX reductions:	***4.9952***

2018

EMISSIONS SCENARIO	NOX EMISSIONS
2005 Attainment Year	24.75793
2018 w/Nonroad Controls**	**13.7394**
Total daily NOX reductions:	***11.0186***

** Denotes Nonroad Emissions with national equipment standards included, but without RFG in Gloucester and Isle of Wight (No RFG). Benefit from Nonroad RFG is quantified elsewhere.

Implementation Schedule and Status

Currently implemented by Federal regulations.

Control Measure: Open Burning Restriction

Measure Name: Open Burning Bans/Restrictions

SCC: 2610020000

VOC

Reductions in 2011 (tons/day)	0.24454
Reductions in 2018 (tons/day)	0.28169

NOX

Reductions in 2011 (tons/day)	0.05148
Reductions in 2018 (tons/day)	0.05930

Description:
Application of ozone season open burning restriction, Rule 4-40. Applied to 6 Hampton Roads Jurisdictions (Fips 073, 093, 95, 199, 735 and 830)

Issues

· Measure is enforced by local fire marshals

Assumptions

Restriction was already in place in 7 Hampton Roads Jurisdictions

Assume 100% Control Efficiency, 80% Rule Effectiveness, yields a net 80% Control Effectiveness

Emission Reductions

2011

Uncontrolled VOC Emissions =	0.30568	tpd VOC
@ 80% compliance =	0.06114	tpd VOC
Total Reductions =	*0.24454*	*tpd VOC*

2018

Uncontrolled VOC Emissions =	0.35211	tpd VOC
@ 80% compliance =	0.07042	tpd VOC
Total Reductions =	*0.28169*	*tpd VOC*

2011

Uncontrolled NOx Emissions =	0.064	tpd NOx
@ 80% compliance =	0.013	tpd NOx
Total Reductions =	*0.051*	*tpd NOx*

2018

Uncontrolled NOx Emissions =	0.074	tpd NOx
@ 80% compliance =	0.015	tpd NOx
Total Reductions =	*0.059*	*tpd NOx*

Implementation Schedule and Status

State regulation to restrict open burning during the ozone season will be expanded to cover the new jurisdictions involved. This regulatory revision process has begun. The regulation will take effect in 2007. However, a waiver will be requested so that the regulation will not be applicable to Isle of Wight and Gloucester until May 2009. The purpose of the waiver will be to allow local jurisdictions to make necessary changes to local ordinances and contracts to promote the use of wood recycling equipment to be used in lieu of open burning. No credit has been taken for expansion of this regulation into Gloucester and Isle of Wight until 2011.

Control Measure: Stage I Vapor Recovery

Measure Name: Stage I Vapor Recovery

Description:
Applies to Gloucester and Isle of Wight. Requires Balanced/Submerged fill in place of Submerged Tank Filling and Tank Trucks in Transit Controls.

VOC

Reductions in 2011 (tons/day)	0.72854
Reductions in 2018 (tons/day)	0.72347

Assumptions

· Control already in place in 11 Hampton Roads nonattainment area jurisdictions.

· Estimate includes uncontrolled tank filling, working, transit, and breathing losses.

· Assume a 90% control effectiveness.

· Assume a 80% control effectiveness.

Emission Reductions

2011

Uncontrolled VOC Emissions =	1.03023	tpd VOC
Controlled VOC Emissions =	0.30169	tpd VOC
Total Reductions =	*0.72854*	*tpd VOC*

2018

Uncontrolled VOC Emissions =	1.02306	tpd VOC
Controlled VOC Emissions =	0.29959	tpd VOC
Total Reductions =	*0.72347*	*tpd VOC*

Implementation Schedule and Status

State regulation to require Stage I vapor recovery controls will be expanded to cover the new jurisdictions involved. This regulatory revision process has begun. This control results in reductions from Tank Trucks Loading and Unloading (Stage 1) and Tank Trucks in Transit Controls.

Control Measure: State CTG GRAPHIC ARTS REGULATION

Measure Name: Graphic Arts Controls

Description:
This control was the result of expansion of the graphic art regulation into 6 new Hampton Roads jurisdictions.

VOC

Reductions in 2011 (tons/day)	0.21260
Reductions in 2018 (tons/day)	0.25118

Assumptions

· Control already in place in 7 Hampton Roads jurisdictions.

· Assume 75% control efficiency, 80% control effectiveness, and 64% penetration.

Emission Reductions

2011

Uncontrolled VOC Emissions =	0.55365	tpd VOC
Controlled VOC Emissions =	*0.34105*	*tpd VOC*
Total Reductions =	*0.21260*	*tpd VOC*

2018

Uncontrolled VOC Emissions =	*0.65412*	*tpd VOC*
Controlled VOC Emissions =	0.40294	tpd VOC
Total Reductions =	*0.25118*	*tpd VOC*

Implementation Schedule and Status

State regulations for the CTG graphic arts regulations were in place for 7 jurisdictions since the late 1990s. These regulations were expanded to 5 more jurisdictions in 2004 to satisfy contingency measure requirements under the 1 hour ozone maintenance plan. However, due to the lag time in actual implementation, these 5 jurisdictions were thought to be mainly uncontrolled by the summer of 2005. It is expected that these jurisdictions are now fully compliant with the CTG regulations. The regulatory process to include the last 2 jurisdictions, Gloucester and Isle of Wight, under these regulations is currently under way.

Control Measure: State CTG Metal Cleaning Solvent Regulation

Measure Name: Metal Cleaning Solvent Controls

Description:
This measure involves the extension of the state CTG rule for metal cleaning solvents to 6 Hampton Roads jurisdictions.

VOC

Reductions in 2011 (tons/day)	0.61278
Reductions in 2018 (tons/day)	0.71164

NOX

Reductions in 2011 (tons/day)	N/A
Reductions in 2018 (tons/day)	N/A

Assumptions

· Control already in place in 7 Hampton Roads jurisdictions.

· Assume 32% control efficiency.

Emission Reductions

2011

Uncontrolled VOC Emissions =	1.07405	tpd VOC
Controlled VOC Emissions =	0.46127	tpd VOC
Total Reductions =	0.61278	tpd VOC

2018

Uncontrolled VOC Emissions =	1.24845	tpd VOC
Controlled VOC Emissions =	0.53681	tpd VOC
Total Reductions =	0.71164	tpd VOC

State regulations for the CTG metal solvent cleaning rule were in place for 7 jurisdictions since the late 1990s. This regulation was expanded to 5 more jurisdictions in 2004 to satisfy contingency measure requirements under the 1 hour ozone maintenance plan. However, due to the lag time in actual implementation, these 5 jurisdictions were thought to be mainly uncontrolled by the summer of 2005. It is expected that these jurisdictions are now fully compliant with the CTG regulation. The regulatory process to include the last 2 jurisdictions, Gloucester and Isle of Wight, under this regulation is currently under way.

Control Measure: State CTG Cutback Asphalt Regulation

Measure Name: State Cutback Asphalt Regulation

Description:
This measure involves the restriction of the use of cutback asphalt and was applied to 6 new Hampton Roads jurisdictions.

VOC

Reductions in 2011 (tons/day)	0.00191
Reductions in 2018 (tons/day)	0.00271

NOX

Reductions in 2011 (tons/day)	N/A
Reductions in 2018 (tons/day)	N/A

Assumptions

· Control already in place in 7 Hampton Roads jurisdictions.

· Assume a 100% control efficiency, and an 80% rule effectiveness.

Emission Reductions

2011

Uncontrolled VOC Emissions =	0.00239	tpd VOC
Controlled VOC Emissions =	0.00048	tpd VOC
Total Reductions =	*0.00191*	*tpd VOC*

2018

Uncontrolled VOC Emissions =	*0.00276*	*tpd VOC*
Controlled VOC Emissions =	0.00005	tpd VOC
Total Reductions =	*0.00271*	*tpd VOC*

State regulations for cutback asphalt were in place for 7 jurisdictions since the late 1990s. This regulation was expanded to 5 more jurisdictions in 2004 to satisfy contingency measure requirements under the 1 hour ozone maintenance plan. However, due to the lag time in actual implementation, these 5 jurisdictions were thought to be mainly uncontrolled by the summer of 2005. It is expected that these jurisdictions are now fully compliant with the cutback asphalt restrictions. The regulatory process to include the last 2 jurisdictions, Gloucester and Isle of Wight, under this regulation is currently under way.

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9. Air Quality Modeling Support Information

The modeling analyses presented in support of the petition for the reclassification of the Hampton Roads nonattainment area were conducted by two planning organizations:

- The Association for Southeastern Integrated Planning (ASIP)
- The Ozone Transport Commission (OTC)

Virginia is a participating member in OTC and ASIP and has extracted the most recent CMAQ modeling results that have been provided by these organizations. These modeling platforms have been developed through a collaborative process that will be used as the basis for 8-hour ozone attainment demonstration in the Eastern United States.

The following modeling protocol documents provide details on the regional modeling analyses:

- Draft Report - Modeling Protocol For Association for Southeastern Integrated Planning (ASIP) Emissions and Air Quality Modeling to Address 8-Hour Ozone and PM2.5 Nonattainment in the Southeastern United States (ENVIRON International Corporation and Alpine Geophysics LLC) (January 31, 2006)
- A Modeling Protocol for the OTC SIP Quality Modeling System For Assessment of the Ozone National Ambient Air Quality Standard in the Ozone Transport Region (The Modeling Committee of the Ozone Transport Commission (May 6, 2006)

The procedures set forth in these protocols have been developed in accordance with the Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone NAAQS (EPA-454/R-05-002, October 2005).

9.1. Modeling Attainment Test

The modeled attainment predicts whether or not all estimated future design values will be less than or equal to the concentration level specified in the ozone NAAQS under meteorological conditions similar to those which have been simulated.

The modeled attainment test applied at each monitor in the Hampton Roads area is performed using the following equation as recommended by EPA:

$$(DVF)_I = (RRF)_I(DVC)_I$$

Where:

$(DVC)_I$ = the baseline concentration monitored at site I, in ppb
$(RRF)_I$ = the relative reduction factor, calculated near site I
$(DVF)_I$ = the estimated future design value for the time attainment is required, in ppb.

Current design values are calculated using the average of the three design value periods which include the baseline inventory year. Specifically, the average design values are calculated using the 2000-2002, 2001-2003, and 2002-2004 periods. The current design value calculations for the Hampton Roads area monitors are presented in Table 9.1-1:

Table 9.1-1 Attainment Modeling Current Design Value Calculations

Monitors		Observed Design Values (ppb)			5-yr Attainment Modeling Current Design Value (ppb)
County/City	**AIRS ID**	**2000-2002**	**2001-2003**	**2002-2004**	**2000-2004**
Hampton City	516500004	89	90	86	88.3
Suffolk City	518000004	88	88	85	87.0
Suffolk City	518000005	83	82	82	82.3

A 3x3 array of grid cells surrounding each monitor is used in the modeled attainment test for the 12-km grid resolution modeling to calculate RRFs. It is important to note that the 2018 ASIP modeling results presented in this report were conducted at a 36-km resolution. Therefore, the RRF calculations utilize the exact grid cell location for each monitor as opposed to the grid cell array for the 12-km resolution modeling.

The predicted 8-hour daily maximum concentrations from each modeled day are used in the modeled attainment test with the nearby grid cell with the highest predicted 8-hour daily maximum concentration with baseline emissions for each day considered in the test, and the grid cell with the highest predicted 8-hour daily maximum concentration with the future emissions for each day in the test.

The RRFs used in the modeled attainment test are computed by taking the ratio of the mean of the 8-hour daily maximum predictions in the future to the mean of the 8-hour daily maximum predictions with baseline emissions, over all relevant days. To avoid overestimates of future design values and provide for more robust RRFs and future design values, the following rules are applied to determine the number of days and the minimum threshold at each ozone monitor:

- If there are 10 or more days with daily maximum 8-hour average modeled ozone > 85 ppb an 85 ppb threshold is used.
- If there are less than 10 days with daily maximum 8-hour average modeled ozone > 85 ppb the threshold is reduced to as low as 70 ppb until there are 10 days in the mean RRF calculation.
- If there are less than 10 days with daily maximum 8-hour average modeled ozone > 70 ppb then all days > 70 ppb are used.
- No RRF calculations are performed for sites with less than 5 days > 70 ppb.

9.2. 2009 Modeling Results

The ASIP and OTC modeling results presented in Table 9.2-1 and Table 9.2-2 below have been conducted for 2009 with the objective of demonstrating that the measures adopted as part of the State Implementation Plan will result in attainment of the ozone standard by June 15, 2010.

Table 9.2-1 Association for Southeastern Integrated Planning (ASIP)
2009 Modeled Attainment Test Results for Monitors in the Hampton Roads Area [1]

Monitors		Modeled Average Base-Year (2002) Daily 8-hr Maximum Ozone (ppb)	Modeled Average Future-Year (2009) Daily 8-hr Maximum Ozone (ppb)	Relative Reduction Factor (RRF)	5-yr Attainment Modeling Current Design Value (2000-2004) (ppb)	2009 Projected Future Design Value (ppb)
Hampton City	516500004	93.3	85.7	0.919	88.3	81.1
Suffolk City	518000004	93.7	85.8	0.916	87.0	79.7
Suffolk City	518000005	81.2	73.3	0.903	82.3	74.3

[1] Modeling conducted at 12-km horizontal grid resolution using ASIP Base F4 emissions.

Table 9.2-2 Ozone Transport Commission (OTC)
2009 Modeled Attainment Test Results for Monitors in the Hampton Roads Area[2]

Monitors		Modeled Average Base-Year (2002) Daily 8-hr Maximum Ozone (ppb)	Modeled Average Future-Year (2009) Daily 8-hr Maximum Ozone (ppb)	Relative Reduction Factor (RRF)	5-yr Attainment Modeling Current Design Value (2000-2004) (ppb)	2009 Projected Future Design Value (ppb)
Hampton City	516500004	109.1	101.1	0.927	88.3	81.9
Suffolk City	518000004	105.8	99.3	0.939	87.0	81.7
Suffolk City	518000005	82.8	72.7	0.878	82.3	72.3

[2] Modeling conducted at 12-km horizontal grid resolution using OTC Version 2 emissions.

The ASIP and OTC 2009 modeling results demonstrate that the predicted 8-hour future design values for the Hampton Roads area monitors are expected to be in compliance with the ozone NAAQS (0.08 parts per million) by June 15, 2010.

9.3. 2018 Modeling Results

The ASIP and OTC modeling results for 2018 are being provided to support the 10-year Maintenance Plan for the Hampton Roads area.

Table 9.3-1 Association for Southeastern Integrated Planning (ASIP)
2018 Modeled Attainment Test Results for Monitors in the Hampton Roads Area[3]

Monitors		Modeled Average Base-Year (2002) Daily 8-hr Maximum Ozone (ppb)	Modeled Average Future-Year (2018) Daily 8-hr Maximum Ozone (ppb)	Relative Reduction Factor (RRF)	5-yr Attainment Modeling Current Design Value (2000-2004) (ppb)	2018 Projected Future Design Value (ppb)
Hampton City	516500004	116	104.1	0.897	88.3	79.2
Suffolk City	518000004	116	104.1	0.897	87.0	78.0
Suffolk City	518000005	79.1	63.1	0.798	82.3	65.7

[3] Modeling conducted at 36-km horizontal grid resolution using ASIP Base F4 emissions.

Table 9.3-2 Ozone Transport Commission (OTC)
2018 Modeled Attainment Test Results for Monitors in the Hampton Roads Area[4]

Monitors		Modeled Average Base-Year (2002) Daily 8-hr Maximum Ozone (ppb)	Modeled Average Future-Year (2018) Daily 8-hr Maximum Ozone (ppb)	Relative Reduction Factor (RRF)	5-yr Attainment Modeling Current Design Value (2000-2004) (ppb)	2018 Projected Future Design Value (ppb)
Hampton City	516500004	109.1	95.3	0.874	88.3	77.2
Suffolk City	518000004	105.8	94.6	0.894	87.0	77.8
Suffolk City	518000005	82.8	65.7	0.793	82.3	65.3

[4] Modeling conducted at 12-km horizontal grid resolution using OTC Version 2 emissions.

These results provide assurance that the Hampton Roads area will continue to meet the 8-hour ozone NAAQS for the next 10 years through 2018.

9.4. Conclusions

The referenced modeling exercises support the petition for the reclassification of the Hampton Roads 8-hour ozone nonattainment area to an attainment area in that:

- All of the modeling evidence presented from ASIP and OTC shows that the Hampton Roads area will continue to experience lower ozone levels and will attain the 8-hour standard by June 15, 2010.
- Continued attainment and further decreasing ozone levels are predicted for the Hampton Roads area for the next 10 years (2018).