

**Region 3 Plan Summary**  
**Metropolitan Washington, DC Ozone Nonattainment Area**

**Title:** "Plan to Improve Air Quality in the Washington, DC-MD-VA Region, State Implementation Plan, "Severe Area SIP,"" dated August 4, 2003, as revised on February 19, 2004.

**Federal Register Dates:** January 12, 2005, 70 FR 2085 (proposed rule - full approval); May 13, 2005, 70 FR 25688 (final rule- approval).

**EPA Effective date:** June 13, 2005

**State Submittal Dates: District of Columbia**– September 5, 2003, as revised on February 25, 2004

**Maryland**– September 2, 2003, as revised on February 24, 2004

**Virginia**– August 19, 2003, as revised on February 25, 2004

**Affected Areas: District of Columbia**- Entire District

**Maryland**- Calvert, Charles, Frederick, Montgomery, and Prince George's Counties

**Virginia**- Arlington, Fairfax, Loudoun, Prince William, and Stafford Counties; Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park Cities

**Summary of the Plan:** Air quality planning for the Washington, D.C. ozone nonattainment area is done jointly by the District of Columbia, Maryland, Virginia and the Metropolitan Washington Air Quality Committee (MWAQC). The MWAQC is composed of state and local elected officials, state air quality and transportation planning directors and the chair of the National Capital Region Transportation Planning Board.

The District of Columbia, Maryland, and Virginia each submitted a 1-hour ozone attainment demonstration covering the entire Metropolitan Washington, D.C. ozone nonattainment area. This demonstration consisted of: Photochemical grid modeling results for three episodes representing different weather conditions, additional evidence to demonstrate attainment for the nonattainment area, VOC and NOx emission inventories, and identification of control measures needed to attain the 1-hour national ambient air quality standard (NAAQS) for ozone by November 15, 2005.

As a result of the reclassification of the Washington area to severe nonattainment, the District of Columbia, Maryland and Virginia had to develop a plan to show a further 18% reduction in base line emissions from November 15, 1999, through November 15, 2005; this 18% reduction is broken into two 9% increments - the first between 1999 and 2002, and the second between 2002 and 2005. This document summarizes the plan designed to achieve the 9% reduction increments between 1999 and 2002 and between 2002 and 2005, and also summarizes the

measures included in the attainment demonstration.

<b>Comparison of Attainment Demonstration Allowable Emissions Levels and Post-1996 ROP Plan Target Levels for 2002 and 2005</b>		
	<b>Emissions - tons per day</b>	
<b>Plan Element</b>	<b>NO<sub>x</sub></b>	<b>VOC</b>
Modeled Attainment Demonstration Levels	538.	360.
Post-1996 Plan Target Levels for 2002	626.3	347.7
Post-1996 Plan Target Levels for 2005	539.0	339.3

<b>Comparison of Attainment Demonstration Allowable Emissions Levels and Projected Emissions Levels Achieved by the Plan</b>		
	<b>Emissions - tons per day</b>	
<b>Plan Element</b>	<b>NO<sub>x</sub></b>	<b>VOC</b>
Non-Attainment Area Modeling Allowable	360.	538.
Projected 2005 Emissions Levels Achieved by the Plan	356.7	491.4

**Emissions Reductions:** The nonattainment area-wide plan apportions among the three jurisdictions the amount of creditable emission reductions that each jurisdiction must achieve in order for the entire nonattainment area to achieve as a region a 9% ROP reduction in VOC or NO<sub>x</sub> emissions net of growth. Each jurisdiction's Post-1996 plan identifies the amount of creditable emission reductions that each jurisdiction must achieve for the nonattainment area-wide plan to get 9% ROP accounting for any growth in emissions from 1990 to the 2002 or 2005 milestone year. The amount of creditable emission reductions needed for the entire nonattainment area to fulfill the 9% ROP requirement for the 2002 milestone year is the sum of 9% of the adjusted base year NO<sub>x</sub> emissions inventory for the region, and the amount of reductions needed to offset growth in NO<sub>x</sub> emissions from 1990 to 2002.

For the 2005 milestone year, the amount of creditable emission reductions needed for the entire nonattainment area to fulfill the 9% ROP requirement is the sum of 9% of the adjusted base year NO<sub>x</sub> emissions inventory for the region, and the amount of reductions needed to offset growth in NO<sub>x</sub> emissions from 1990 to 2005.

The nonattainment area-wide sum of emission reductions required for the region was

apportioned among the three jurisdictions. As shown in this summary document, the sum of the individual State commitments contained in the plan equals the required amount of creditable emission reductions calculated in the plan for the entire nonattainment area. Maryland, Virginia and the District each committed to achieving the NOx and VOC reductions as summarized below.

**Transportation Conformity Budgets:** The Post-1996 plan and attainment demonstration establishes VOC and NOx budgets for the entire Metropolitan Washington, DC ozone nonattainment area that are applicable for determinations for 2002 and 2005. The Post-1996 plan and attainment demonstration adopt and establish the following transportation conformity budgets for the entire Metropolitan Washington, DC ozone nonattainment area:

<b>Transportation Conformity Budgets:</b>		
<b>Plan</b>	<b>VOC budget in Tons Per Day</b>	<b>NOx Budget in Tons Per Day</b>
Post-1996 plan for 2002	125.2	290.3
Post-1996 plan for 2005	97.4	234.7
2005 Attainment Demonstration	97.4	234.7

**Summary of Control Measures:**

**District of Columbia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval/Promulgation Citation	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
					VOC	NOx	VOC	NOx
<b>On-Road and Non-Road Mobile Source Controls</b>					<b>VOC</b>	<b>NOx</b>	<b>VOC</b>	<b>NOx</b>
Enhanced Inspection & Maintenance	state	yes	1999	Approved June 11, 1999, 64 FR 31498	6.0	3.9	7.9	7.0
Federal Motor Vehicle Control program (Tier 1 & 2)	federal		Tier 1 - MY <sup>2</sup> 1994 Tier 2 - MY 2004	federal rule (40 CFR 86)				
Reformulated Gasoline (Phase 1 & 2) <sup>1</sup>	Federal/state opt-in		Phase 1 - January 1995 Phase 2 - January 2000	40 CFR 80 subpart D				
NLEV	state opt-in		MY 1999	SIP approved - 65 FR 44981, July 20, 2000				
Heavy duty diesel engines	federal		MY 2004	62 FR 54693, October 21, 1997				

<sup>1</sup> Reduction benefits are beyond those achieved by federal Phase 2 Reid Vapor Pressure requirements that took effect in 1992.

<sup>2</sup> Model Year (MY)

**District of Columbia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Transportation Control Measures (TCM)- see table below	state	yes	1996 through end of year 2004	70 FR 25688, May 13, 2005	0.0059	0.0048	0.0041	0.0062
Federal Non-road Heavy Duty diesel engine standards	federal	yes	beginning MY 1996	federal rule (40 CFR 8, 59 FR 31335, June 17, 1994)		0.8		1.1
Federal Small Gasoline Engine standards	federal	yes	beginning MY 1996	federal rule (40 CFR 90, 60 FR 34598, July 3, 1995)	1.1		1.3	
Federal Spark Ignition Marine Engines	federal	yes	beginning model year 1999	federal rule 61 FR 52088, October 4, 1996	0.1		0.3	
Rail Road Locomotive Controls	federal	yes	Tier 1 - 2002 Tier 2 - 2005	federal rule (40 CFR 92)		0.1		0.1
Reformulated Gasoline (Phase 1 & 2) non-road engines	state opt-in	yes	Phase 1 - January 1995  Phase 2 - January 2000	Approved Opt-in to federal program (40 CFR 80 subpart D)	0.2		0.2	

**District of Columbia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
<b>Stationary Point and Area Source Controls</b>								
NOx RACT	state	yes	May 1995	SIP Approved 65 FR 81369 (December 26, 2000).		2.0		2.0
Additional NOx Control Beyond RACT: OTC NOx MOU Phase 2	state	yes	May 1, 2001	65 FR 80783, (December 22, 2000)		1.0		
NOx SIP Call	state	yes	May 1, 2003	66 FR 55099, November 1, 2001				2.1
Non-CTG RACT	state	yes	May 31, 1995	SIP approved - 64 FR 57777, October 27, 1999	0.32		0.34	
Architectural & industrial maintenance coatings	federal	yes	September 1999	federal rule (40 CFR 59 subpart D, 63 FR 48848, September 11, 1998)	1.7		1.7	
Consumer & commercial products	federal	yes	December 11, 1998	40 CFR 59 subpart C, 63 FR 48819, September 11, 1998	0.5		0.5	

**District of Columbia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Autobody refinishing	federal	yes	January 11, 1999	40 CFR 59 subpart B, 63 FR 48806, September 11, 1998	0.5		0.5	
Graphic Arts Controls (Lithographic Printing)	state	yes	May 1, 1999	SIP approved 64 FR 57777, October 27, 1999	0.6		0.6	
State Portable Fuel Containers Rule	state	yes	January 1, 2005	69 FR 77903, December 29, 2004				0.2
Surface Cleaning/degreasing	state	yes	May 1, 1999	64 FR 57777, October 27, 1999				
State OTC AIM Rule	state	yes	January 1, 2005	70 FR 24959, May 12, 2005				1.1
<b>Total Creditable Emissions Reductions</b>					<b>11.0</b>	<b>7.8</b>	<b>14.3</b>	<b>12.3</b>

**State of Maryland Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval/Promulgation Citation	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
					VOC	NOx	VOC	NOx
<b>On-Road and Non-Road Mobile Source Controls</b>					<b>VOC</b>	<b>NOx</b>	<b>VOC</b>	<b>NOx</b>
Enhanced Inspection & Maintenance	state	yes	1999	64 FR 58340, October 29, 1999	25.8	20.9	36.8	40.0
Federal Motor Vehicle Control program (Tier 1 & 2)	federal		Tier 1 - MY <sup>4</sup> 1994 Tier 2 - MY 2004	federal rule (40 CFR 86)				
Reformulated Gasoline (Phase 1 & 2) <sup>3</sup>	Federal/state opt-in		Phase 1 - January 1995 Phase 2 - January 2000	40 CFR 80 subpart D				
NLEV	state opt-in		MY 1999	64 FR 72564, December 28, 1999				
Heavy duty diesel engines	federal		MY 2004	62 FR 54693, October 21, 1997				

<sup>3</sup> Reduction benefits are beyond those achieved by federal Phase 2 Reid Vapor Pressure requirements that took effect in 1992.

<sup>4</sup> Model Year (MY)



**State of Maryland Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval/Promulgation Citation	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
Transportation Control Measures (TCM)- see table below	state	yes	July 1993	70 FR 25688, May 13, 2005	0.09	0.18	0.08	0.18
Federal Non-road Heavy Duty diesel engine standards	federal	yes	beginning MY 1996	federal rule (40 CFR 89 subpart A)		8.0		11.8
Federal Small Gasoline Engine standards	federal	yes	beginning MY 1996	federal rule (40 CFR 90 subpart A)	10.8		12.8	
Federal Spark Ignition Marine Engines	federal	yes	beginning model year 1999	federal rule 61 FR 52088, October 4, 1996	0.1		0.2	
Rail Road Locomotive Controls	federal	yes	Tier 1 - 2002 Tier 2 - 2005	federal rule (40 CFR 92)		1.3		1.3
Federal Large Spark Ignition Engine Rule	federal	yes	beginning with model year 2004	67 FR 6824, 1 November 8, 2002			0.3	0.2

**State of Maryland Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Reformulated Gasoline (Phase 1 & 2) non-road engines	state opt-in	yes	Phase 1 - January 1995 Phase 2 - January 2000	Approved Opt-in to federal program (40 CFR 80 subpart D)	1.2		1.2	
<b>Stationary Source Controls</b>								
NOx RACT	state	yes	May 1995	66 FR 1866 (February 8, 2001).				67.9
Additional NOx Control Beyond RACT: OTC NOx MOU Phase 2	state	yes	May 1, 2000	65 FR 78416, December 15, 2000		172.6		227.8
NOx SIP Call	state	yes	May 1, 2003	January 10, 2001 (66 FR 1866)				
Non-CTG RACT to 50 tpy -	state	yes	yes	SIP-approved 10/15/97 (62 FR 53544); 6/17/99 (64 FR 32415)	0.29		0.31	

**State of Maryland Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Expanded State Point Source Regulations to 25 tons/year	state	yes	yes	SIP-approved 9/2/97 (62 FR 46199); 10/15/97 (62 FR 53544); 12/22/98 (63 FR 70667); 3/22/99 (64 FR 57989); 6/17/99 (64 FR 32415)	1.7		1.8	
Stage II Vapor Recovery &  On-board Refueling Vapor Recovery (ORVR)	state  federal	yes  yes	January 1993  MY 1998	SIP approved 6/9/94 59 FR 29730  Promulgated at 40 CFR 86	8.1 <sup>5</sup>		8.0	
Stage I Vapor Recovery Enhancement	state	yes	April 26, 1993	SIP approved January 6, 1995, 60 FR 2018.	0.9		1.0	
Architectural & industrial maintenance coatings	federal	yes	September 1999	federal rule (40 CFR 59 subpart D, 63 FR 48848, September 11, 1998)	8.5		8.9	

<sup>5</sup> State only provided aggregate reduction benefits for both programs.

**State of Maryland Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Consumer & commercial products	federal	yes	December 11, 1998	Federal rule (40 CFR 59 subpart C, 63 FR 48819, September 11, 1998)	1.8		1.9	
Autobody refinishing	state	yes	July 1, 1995	SIP approved August 4, 1997 [62 FR 41853]	5.7		6.0	
Graphic Arts Controls (Lithographic Printing)	state	yes	January 1, 1992	September 2, 1997 [62 FR 46199]	1.6		1.6	
Open Burning Ban	state	yes	May 1995	January 31, 1997, 62 FR 8380.	4.4	0.9	4.4	0.9
State Portable Fuel Containers Rule	state	yes	January 1, 2004	69 FR 38848, June 29, 2004	0.9		1.7	
State OTC Solvent Cleaning Rule ("Surface Cleaning/degreasing")	state	yes	June 5, 1995	62 FR 41853, August 4, 1997	2.5		2.6	
State OTC AIM Rule	state	yes	January 1, 2005	70 FR 24979, May 12, 2005	0		6.2	

**State of Maryland Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval/Promulgation Citation</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Non-regulatory measures:								
Gas Can Replacement Program	state	yes	January 2004 December 2004 April 2005	70 FR 24987, May 12, 2005			0.00088 0.0027	
Low-VOC Paints Program			December 2003 May 2005				0.00231 0.155 0.002	
Montgomery County Regional Wind Power Purchase			December 2004					0.05
<b>Total Creditable Emissions Reductions</b>					<b>85.4</b>	<b>211.7</b>	<b>110.3</b>	<b>362.4</b>

**Commonwealth of Virginia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval Status	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
					VOC	NOx	VOC	NOx
<b>On-Road and Non-Road Mobile Source Controls</b>					<b>VOC</b>	<b>NOx</b>	<b>VOC</b>	<b>NOx</b>
Enhanced Inspection & Maintenance	state	yes	1999	64 FR 47670, September 1, 1999	24.2	20.1	35.8	38.8
Federal Motor Vehicle Control program (Tier 1 & 2)	federal		Tier 1 - MY <sup>7</sup> 1994 Tier 2 - MY 2004	40 CFR 86				
Reformulated Gasoline (Phase 1 & 2) <sup>6</sup>	Federal/state opt-in		Phase 1 - January 1995 Phase 2 - January 2000	Approved Opt-in to federal program (40 CFR 80 subpart D)				
NLEV	state opt-in		MY 1999	64 FR 72564, December 28, 1999				
Heavy duty diesel	federal		MY 2004 engines	62 FR 54693, October 21, 1997				

<sup>6</sup> Reduction benefits are beyond those achieved by federal Phase 2 Reid Vapor Pressure requirements that took effect in 1992.

<sup>7</sup> Model Year (MY)

**Commonwealth of Virginia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval Status</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Transportation Control Measures (TCM) - see table below	state	yes	July 1993	70 FR 25688, May 13, 2005	0.14	0.32	0.12	0.31
Federal Non-road Gasoline Engine standards	federal	yes	beginning MY 1996	federal rule (40 CFR 89 subpart A)	10.2		12.5	
Federal Non-road Heavy Duty diesel engine standards	federal	yes	beginning MY 1996	federal rule (40 CFR 90 subpart A)		6.2		9.3
Federal Spark Ignition Marine Engines	federal	yes	beginning model year 1999	federal rule 61 FR 52088, October 4, 1996	1.0		2.6	
Rail Road Locomotive Controls	federal	yes	Tier 1 - 2002 Tier 2 - 2005	federal rule (40 CFR 92)		1.5		1.6

**Commonwealth of Virginia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval Status</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Federal Large Spark Ignition Engine Rule	federal	yes	beginning with model year 2004	67 FR 6824,1 November 8, 2002			0.3	0.2
Reformulated Gasoline (Phase 1 & 2) non-road engines	state opt-in	yes	Phase 1 - January 1995 Phase 2 - January 2000	Approved Opt-in to federal program (40 CFR 80 subpart D)	1.4		1.5	
<b>Stationary Source Controls</b>								
NOx RACT	state	yes	May 1995	66 FR 8 (January 2, 2001).		26.		26.
Beyond RACT NOx Requirements on Utilities	state	yes	final 0.15 lb NOx/mm BTU limits May 2004.	65 FR 78100, December 14, 2000				19.3
Non-CTG RACT to 50 tpy -	state	yes	yes	SIP-approved 3/12/97, 62 FR 11334; 1/22/99, 64 FR 3425; 1/ 2/01, 66 FR 8; source shutdowns as of 1/91	0.57		0.59	



**Commonwealth of Virginia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval Status</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Expanded State Point Source Regulations to 25 tons/year	state	yes	1996	62 FR 11332, March 12, 1997; 66 FR 8, January 2, 2001	0.63		0.66	
Stage II Vapor Recovery & On-board Refueling Vapor Recovery (ORVR)	state	yes	January 1993	SIP approved 59 FR 32353, June 23, 1994	7.1		7.0	
	federal	yes	MY 1998	Promulgated at 40 CFR 86				
AIM Surface Coatings	federal	yes	September 1999	federal rule (40 CFR 59 subpart D)	6.2		6.2	
Consumer & commercial products	federal	yes	December 11, 1998	federal rule (40 CFR 59 subpart C)	1.7		1.8	
Autobody refinishing	federal	yes	January 11, 1999	federal rule (40 CFR 59 subpart B)	3.1		3.4	
Open Burning Ban	state	yes	May 1995	SIP Approved March 12, 1997 (62 FR 11334)	3.0	0.6	3.0	0.6

**Commonwealth of Virginia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

<b>Control Measure</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Implemented</b>	<b>Approval Status</b>	<b>Reduction by 2002 in tons/day</b>		<b>Reduction by 2005 in tons/day</b>	
Stage I Vapor Recovery	state	yes	yes	SIP-Approved (3/31/94, 59 FR 15117; 10/19/94, 59 FR 52704)	0.6		0.6	
Graphic Arts	state	yes	May 1995	SIP approved March 12, 1997 (62 FR 11334). 40 CFR 52.2520c113	1.7		1.8	
Non-regulatory measures:	state	yes		70 FR 24987, May 12, 2005				
Gas Can Replacement Program			July 2004 May 2005			0.00198 0.00377		
Low-VOC Paints Program			April 2004			0.017		
Sale of Reformulated Consumer Products			January 2005			3.00		
Auxiliary Power Units on Locomotives			March 2004			0.01		0.13

**Commonwealth of Virginia Control Measures and Creditable Emissions Reductions  
in the Attainment Demonstration and Post-1996 Rate of Progress Plans  
for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval Status	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
Landfill rules	state/ Federal	yes	July 7, 2002 – 30 months after initial report which was due 90 days after January 7, 2000.	69 FR 77900, December 29, 2004  Federal rule 64 FR 60703, November 8, 1999, For landfills constructed/reconstructed after May 30, 1991 - 40 CFR Part 60, Subpart WWW applies	1.1		1.3	
<b>Total Creditable Emissions Reductions</b>					62.6	54.7	82.2	96.2

**Measures Evaluated on an Area-wide Basis and Creditable Emissions Reductions in the 1-Hour Ozone  
Attainment Demonstration and Rate-of-Progress Plans for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval Status	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
					VOC	NOx	VOC	NOx
<b>On-Road and Non-Road Mobile Source Controls</b>					<b>VOC</b>	<b>NOx</b>	<b>VOC</b>	<b>NOx</b>

**Measures Evaluated on an Area-wide Basis and Creditable Emissions Reductions in the 1-Hour Ozone Attainment Demonstration and Rate-of-Progress Plans for the Metropolitan Washington Nonattainment Area**

Control Measure	Type of Measure	Adopted	Implemented	Approval Status	Reduction by 2002 in tons/day		Reduction by 2005 in tons/day	
Area-wide TCMs - WMATA <sup>8</sup> System - see table below	state	yes	2001 through end of year 2004	70 FR 25688, May 13, 2005	0.0706	0.0156	0.0674	0.1725
Refueling Benefits from RFG	Federal/state opt-in	yes	Phase 1 - January 1995 Phase 2 - January 2000	Approved Opt-in to federal program (40 CFR 80 subpart D)	2.6		2.3	

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<sup>8</sup> Washington Metropolitan Area Transportation Authority (WMATA) TCMs that cannot be assigned to a specific state.

**List of Transportation Control Measures in the Plans:**

The following chart summarizes the list of transportation control measures (TCM) which are adopted as part of the 1999 to 2005 portion of the Post- 1996 rate of progress plans and as part of the attainment demonstration:

<b>List of Transportation Control Measures</b>		<b>Reduction by 2005 in</b>	
		<b>tons/day</b>	
<b>State/ID</b>	<b>Description of Measure</b>	<b>VOC</b>	<b>NOx</b>
<b>Virginia</b>			
NV-1	Park-and-Ride spaces Northern Virginia Districtwide	0.028	0.08
NV-2	Transit Access Improvements	0.016	0.039
NV-3	Purchase of New Transit Buses	0.025	0.067
NV-4	Improvements to Pedestrian Facilities	0.001	0.002
NV-5	Construction of Bus Shelters	0	0.001
NV-6	Park-and-Ride spaces Northern Virginia Districtwide	0.0325	0.0838
NV-7	Bicycle Lanes / Trails in Northern Virginia	0.0051	0.0053
NV-8	Bicycle Lockers in Northern Virginia	0.0004	0.0006
NV-9	Hybrid Vehicle Purchase	0.0004	0.0009
NV-10	Bicycle Lane/Trail	0.0124	0.0127
NV-11	Sidewalk Improvements	0.0007	0.0007
NV-12	CNG Buses	0	0.0174
	<b>Total</b>	<b>0.1215</b>	<b>0.3104</b>
<b>Maryland</b>			
MD-1	MD Suburban Bus Replacements	0.01	0.025
MD-2	Transit Parking Facilities	0.004	0.009
MD-3	MARC Replacement/Expansion Coaches	0.0360	0.1000
MD-4	Bicycle Facilities	0.008	0.002
MD-5	Park and Ride Facilities	0.006	0.019
MD-6	Grosvenor Metro Garage	0.006	0.0155
MD-7	Park & Ride Lots (Recent Additions)	0.0066	0.0171
	<b>Total</b>	<b>0.0406</b>	<b>0.0876</b>
<b>WMATA</b>			
WM-1	Bicycle Racks on Transit Buses (1458 total racks)	0.0074	0.0131
WM-2	Ultra Low Sulfur Diesel Fuel with CRT filters (886 buses)	0.06	-
WM-3	Compressed Natural Gas Buses (164 buses)	-	0.1594
	<b>Total</b>	<b>0.0674</b>	<b>0.1725</b>
<b>District of Columbia</b>			
DC-1	Bicycle Lanes (8 miles)	0.0035	0.0035
DC-2	CNG Refuse Haulers (2 vehicles)	0	0.0022
DC-3	Bicycle Racks (150 Racks)	0.0006	0.0005
	<b>Total</b>	<b>0.0041</b>	<b>0.0062</b>

**Contingency Measures:**

<b>Summary of Contingency Measure Needs</b>	
Base line - 2002 baseline VOC emissions	420.5 tons per day
3% of 2002 baseline VOC emissions	12.6 tons per day

<b>Contingency Measures and Creditable Emissions Reductions in the 1-Hour Ozone Attainment Demonstration and Rate-of-Progress Plans for the Metropolitan Washington Nonattainment Area</b>				
				<b>Reduction in tons/day</b>
<b>Control Measure/State</b>	<b>Type of Measure</b>	<b>Adopted</b>	<b>Approval Status</b>	<b>VOC</b>
Portable fuel containers rule - Post 2005 benefits only/VA	state	yes	69 FR 31893, June 8, 2004	1.7
Portable fuel containers rule - Post 2005 benefits only/MD	state	yes	69 FR 38848, June 29, 2004	1.5
Portable fuel containers rule - Post 2005 benefits only/DC	state	yes	69 FR 77903, December 29, 2004	0.3
Solvent cleaning operations/DC	state	yes	69 FR 77906, December 29, 2004	2.7
Consumer Products/DC	state	yes	69 FR 77642, December 28, 2004	1.1
Consumer Products/MD	state	yes	68 FR 68523, December 9, 2003	2.9
Refinishing operations of motor vehicles/VA	state	yes	69 FR 35253, June 24, 2004	2.0
Refinishing operations of motor vehicles/DC	state	yes	69 FR 76855, December 23, 2004	0.6

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