

**Region 3 Plan Summary
Metropolitan Baltimore Ozone Nonattainment Area**

Title: 15 % Rate of Progress (ROP) Plan for the Metropolitan Baltimore ozone nonattainment area

Federal Register Dates: October 9,1997, 62 FR 52661(final rule-conditional approval); February 3, 2000, 65 FR 5296 (proposed rule- approval), 65 FR 5245 (final rule - approval)

EPA Effective date: March 20, 2000

State Submittal Dates: July 12, 1995; revisions submitted on December 24, 1997 and October 7, 1998.

Affected Areas: Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties; Baltimore City

Summary of the Plan: The 15% ROP plan submitted by Maryland on December 24, 1997 and October 7, 1998 had addressed the conditions spelled out by EPA in its conditional approval of the initial July 12, 1995 plan submittal. The main elements of the revised ROP plan are: 1) emissions projections or projected growth in emissions during the period 1990-1996; 2) VOC emissions target level calculations for 1996; 3) description of control measures used to demonstrate the 15% required reduction in volatile organic compounds (VOC) emissions; and 4) revisions to the 1990 base year inventory for VOC and oxides of nitrogen (NO x) emissions.

Emissions Inventories:

Table 1 City/County Summary for the Baltimore Ozone Nonattainment Area Approved 1990 ROP Base Year Inventory - (tons/day)		
	<u>VOC</u>	<u>NO x</u>
Mobile Sources	134.2	159.5
Point Sources	42.0	223.2
Nonroad Sources	44.7	71.5
Area Sources	122.4	13.7
Biogenic Sources	180.09	N/A

Table 1 City/County Summary for the Baltimore Ozone Nonattainment Area Approved 1990 ROP Base Year Inventory - (tons/day)		
TOTAL	523.4	467.9

Table 2 Calculation of 15% Reduction Target Level for the Baltimore Nonattainment Area (in tons per day)	
1990 Rate-of-Progress Base Year Inventory (Adjusted to remove biogenic emissions)	343.3
Reductions from Federal Motor Vehicle Emissions Control Program (FMVCP) and Gasoline Volatility Regulations (RVP)	(39.7)
RACT “fix-ups” and I/M Corrections	0.0
1990 Adjusted Base Year Inventory (ROP base year - FMVCP/RVP)	303.6
15% Reduction Requirement (0.15 x adjusted base year inventory)	(45.5)
Emissions reductions from FMVCP and RVP from 1996-1999 (delayed enhanced I/M adjustment)	(4.8)
1996 Target Level of Emissions (base year inventory - 15% reduction - FMVCP/RVP)	253.3
Expected Emissions Growth 1990-1996	18.4
Total Emissions Reduction Needed (15% reduction plus growth plus non-creditable emissions from delayed I/M program)	68.7

Table 3 1996 Projection Year VOC Inventory by Component Baltimore Nonattainment Area		
Inventory Component	1990 Baseline (TPD)	1996 Projection (TPD)
Point Source	40.3	43.6

Table 3 1996 Projection Year VOC Inventory by Component Baltimore Nonattainment Area		
Area Source	127.1	137.0
Mobile Source	134.2	146.0
Non-road Source	45.2	51.5
Total	346.8	378.1

Control Measures/Regulations Included As Part of the Plan and Creditable Emissions Reductions:

Name of Control Measure or SIP Element	Type of Measure	Creditable Emissions Reductions (tons per day)	Approval Status
Autobody Refinishing	State Rule	5.3	SIP- Approved (8/4/97, 62 FR 41853)
Surface Cleaning/Degreasing	State Rule	7.3	SIP Approved (8/4/97, 62 FR 41853)
Open Burning Ban	State Rule	3.6	SIP Approved (2/25/97, 62 FR 8380)
Graphic Arts	State Rule	0.5	SIP Approved (9/2/97, 62 FR 46199)
Expandable Polystyrene Products	State Rule	0.1	SIP Approved (10/15/97, 64 FR 53544; revised 5/7/01, 66 FR 22924)
Yeast Manufacturing	State Rule	0.5	SIP Approved (10/15/97, 64 FR 53544)
Commercial Bakery Ovens	State Rule	0.6	SIP Approved (10/15/97, 62 FR 53544)
Screen Printing	State Rule	0.5	SIP Approved (10/15/97, 62 FR 53544)

Name of Control Measure or SIP Element	Type of Measure	Creditable Emissions Reductions (tons per day)	Approval Status
Enforced rule compliance	State/Federal	4.5	Implemented through Title V permits
State Air Toxics	State Rules	0.9	Implemented through Title V permits
Federal Air Toxics	Federal Rules	0.4	MACT standards for coke ovens; NESHAPS for benzene
AIM Surface Coatings	Federal Rule	5.4	Promulgated at 40 CFR Part 59, subpart D
Consumer & Commercial Products	Federal Rule	2.6	Promulgated at 40 CFR Part 59, subpart C
Enhanced Inspection & Maintenance	CAA SIP Requirement	53.2	SIP Approved (10/29/99, 64 FR 58340; revised 1/16/03, 68 FR 2208)
Stage II Vapor Recovery	CAA SIP Requirement		SIP Approved (8/4/97, 62 FR 41853; revised 5/7/03, 68 FR 24363)
Federal Motor Vehicle Control Program (Tier 1)	Federal Rule		Promulgated at 40 CFR Part 86
Reformulated Gasoline	Federal Rule		Promulgated at 40 CFR Part, 80 subpart D
Total Creditable Emissions Reductions		85.4 tons per day	

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