

Region 3 Plan Summary
Delaware Portion of the Philadelphia-Wilmington -Trenton Ozone Nonattainment Area

Title: 15 % Rate of Progress (ROP) Plan for the Delaware portion of the Philadelphia-Wilmington - Trenton Ozone Nonattainment Area

Federal Register Dates: February 5, 1997, 62 FR 5357 (proposed rule-conditional approval) May 19, 1997, 62 FR 27198 (final rule-conditional approval); October 12, 1999, 64 FR 55220 (proposed rule - full approval); 64 FR 55139 (final rule- full approval)

EPA Effective date: December 13, 1999

State Submittal Date: February 17, 1995

Affected Areas: Kent and New Castle Counties

Summary of the Plan: The Delaware 15% RPP was developed in four parts. Part I presents a summary of the 1990 base year inventory and presents the step process for determining the 1996 target level of VOC emissions. Part II discusses the methodology used to develop 1996 growth factors and discusses how the growth factors are used to determine the 1996 current control projection inventory. Part III discusses the methodology used to develop the 1996 Control Strategy Projection Inventory and presents the individual control measures to be implemented by 1996 with their associated VOC emission reductions. Part IV discusses the 3% contingency measures and the potential emission reductions associated with each measure.

Emissions Inventories:

Provided below is a tabular summary of the emission inventories calculated as described above.

Summary for the Ozone Nonattainment Area Approved 1990 ROP Base Year Inventory - (tons/day)	
Emissions Inventory	Tons per Day
1990 Base Year Inventory	196.529
1990 Rate of Progress Inventory	145.843
FMVCP and RVP Emission Reductions between 1990 and 1996	9.590
1990 Adjusted Base Year Inventory (B-C)	136.253

The adjusted base year inventory is multiplied by 0.15 to calculate the amount of the required rate of

progress emission reduction. The amount of reductions necessary to meet the contingency plan requirement is 3 percent of the adjusted base year inventory. Therefore the adjusted base year inventory is multiplied by 0.03 to calculate the amount of required reductions for the contingency plan requirement. Shown below is a table summarizing the amount of required reductions for the rate of progress and contingency plans.

Calculation of 15% Reduction Target Level for the Nonattainment Area (in tons per day)	
1990 Adjusted Base Year Inventory	136.253
Reduction for Rate of Progress Requirement	20.438
Reduction for Contingency Requirement	4.088

Therefore, to meet the rate of progress requirement, Delaware's plan must provide at least a 20.438 tons per day (tpd) reduction, net of growth, in VOC emissions. In addition, to meet the contingency requirement, Delaware's plan must provide at least a 4.088 tpd reduction, net of growth, in VOC emissions.

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
Point Source Control Measures			
RACT Catch-ups in Kent County:			
Solvent Metal Cleaning	State Rule	0.582	SIP Approved (01/26/96, 61 FR 2419, 11/22/02, 67 FR 70315)
Surface Coating of Metal Furniture	State Rule	0.389	SIP Approved (05/03/95, 60 FR 21707)
Leaks from Synthetic Organic Chemical, Polymer, & Resin Mfg Equipment	State Rule	0.004	SIP Approved (05/03/95, 60 FR 21707)
Subtotal for RACT in Kent County		0.625	

New RACT Regulations- Kent & New Castle Counties:			
Bulk Gasoline Marine Tank Vessel Loading Facilities	State Rule	1.896	SIP Approved (01/26/96, 61 FR 2419)
SOCMI Reactor Processes & Distillation Operations	State Rule	0.024	SIP Approved (01/26/96, 61 FR 2419)
Batch Processing Operations	State Rule	0.406	SIP Approved (01/26/96, 61 FR 2419)
Offset Lithography	State Rule	0.078	SIP Approved (9/2/97, 62 FR 46199)
Aerospace Coatings	State Rule	0.008	SIP Approved (01/26/96, 61 FR 2419)
Industrial Cleaning Solvents	State Rule	0.499	SIP Approved (05/03/95, 60 FR 21707)
Non-CTG RACT	State Rule	0.359	SIP Approved (03/12/97, 62 FR 11329)
Subtotal for New RACT Regulations		3.270	
Benzene Waste Rule	Federal Rule	1.733	Promulgated at 40 CFR Part 61, subpart F
Sanitary Landfills	State Rule	0.158	Federally Approved as a Section 111(d) plan (09/17/99 64 FR 50453)
Irreversible Process Changes	Voluntary measures	1.381	
Total Point Source Reductions		7.167	
Stationary Area Source Control Measures			
RACT Catch-ups in Kent County:			
Solvent Metal Cleaning	State Rule	0.134	SIP Approved (01/26/96, 61 FR 2419; 11/22/02, 67 FR 70315)
Cutback Asphalt	State Rule	0.025	SIP Approved (05/03/95, 60 FR 21707)

Subtotal for Kent County		0.159	
New RACT Regulations- Kent & New Castle Counties			
Stage I Vapor Recovery	State Rule	0.629	SIP Approved (05/03/95, 60 FR 21707)
Emulsified Asphalt	State Rule	0.052	SIP Approved (05/03/95, 60 FR 21707)
Motor Vehicle Refinishing	State Rule	1.242	SIP- Approved (01/26/96, 61 FR 2419)
Offset Lithography	State Rule	0.070	SIP Approved (9/2/97, 62 FR 46199)
Aerospace Coatings	State Rule	0.030	SIP- Approved (01/26/96, 61 FR 2419)
Subtotal for New RACT Regulations		2.023	
Stage II Vapor Recovery	State Rule	1.740	SIP Approved (6/10/94, 59 FR 29956)
Open Burning	State Rule	3.992	SIP Approved (03/12/97, 62 FR 11329)
Total Stationary Area Source Reductions		7.914	
Off-Road Mobile Source Controls:			
Reformulated Fuel	Federal Rule	0.509	Promulgated at 40 CFR Part, 80 subpart D
Total Off-Road Mobile Source Reductions		0.509	
On-Road Mobile Source Controls:			
FMVCP and RVP	Federal Rules	24.120	Promulgated at 40 CFR Parts 80 and 86
Tier I Vehicle Emissions Standards	Federal Rule	0.170	Promulgated at 40 CFR Part 86

For Kent County: a. Basic I/M b. Pressure & ATP		1.420	SIP Approved (9/30/99, 64 FR 52657)
Pressure & ATP in New Castle County		2.180	
Reformulated Fuel	Federal Rule	2.440	Promulgated at 40 CFR Part, 80 subpart D
Total On-Road Mobile Source Reductions		30.330	
TOTAL REDUCTIONS FROM ALL CONTROL MEASURES		45.920	

Contingency Measures: A 3% reduction as a contingency measure can be achieved through the creditable control measures such as open burning and stage II vapor recovery with annual inspections. Ozone areas classified as moderate or above must include in their submittal, under section 172(c)(9) of the Act, contingency measures to be implemented if reasonable further progress (RFP) is not achieved, or if the standard is not attained by the applicable date. The below-listed chart summarized the expected VOC emissions reductions from these two identified control measures:

**Emissions Reductions from Contingency Measures
in Tons Per Peak Ozone Season Day**

Contingency Measures	VOC Emissions Reductions
Stage II Vapor Recovery with Annual Inspections	0.619
Open Burning	3.469
Total	4.088

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