

Region 3 Plan Summary
Richmond-Petersburg, Virginia 8-Hour Ozone Maintenance Plan

Title: Maintenance Plan for the Richmond-Petersburg, Virginia 8-Hour Ozone Area

Federal Register Dates: April 13, 2007, 72 FR 18602 (Proposed Rule); June 1, 2007, 72 FR 30485 (Final Rule).

EPA Effective date: June 18, 2007.

State Submittal Dates: September 18, 2006 (Emissions Inventory) and September 25, 2006 (Maintenance Plan); Supplemental material submitted on November 17, 2006 and February 13, 2007.

Affected Areas: Charles City County, Chesterfield County Colonial Heights City, Hanover County, Henrico County, Hopewell City, Petersburg City, Prince George County, Richmond City.

Key Features:

2005 attainment year; projections to 2011 and 2018.

Shows maintenance of the 8-hour ozone NAAQS by demonstrating that future emissions of VOC and NO_x will not exceed the attainment year 2005 emissions levels throughout the Richmond Area through the year 2018.

The VADEQ chose 2011 as an interim year in the maintenance demonstration period to demonstrate that the VOC and NO_x emissions are not projected to increase above the 2005 attainment level during the time of the maintenance period.

Monitoring Network: VADEQ will continue to operate its three current air quality monitors in the Richmond Area in accordance with 40 CFR part 58.

Contingency Plan Triggers and Contingency Measures:

An actual increase of the VOC or NO_x emissions exceeding the regional emissions budgets:
If the regional emissions budget for VOC or NO_x is exceeded, the following control strategies will be implemented as follows:

Preparation of a complete VOC and NO_x emission inventory.

The expanded implementation of one or more of the control strategies, listed in Table 6, that have not already been implemented in the Richmond Area.

A violation (any 3-year average of each annual fourth highest 8-hour average) of the 8-hour ozone NAAQS of 0.08 ppm occurs:

VADEQ will implement two of the following control strategies as follows:

The expanded implementation of one or more of the following control strategies, listed in Table 6, that have not already been implemented in the Richmond Area.

A violation (any 3-year average of each annual fourth highest 8-hour average) of the 8-hour ozone NAAQS of 0.08 ppm in any subsequent ozone season:
 Two additional control strategies from Table 6 will be implemented:

Table 6. - Maintenance Plan Contingency Measure Options

Control strategy	Description
9 VAC 5 Chapter 40, Article 42	Emissions Standards for Portable Fuel Container Spillage
9 VAC 5 Chapter 40, Article 47	Emissions Standards for Solvent Metal Cleaning Operations
9 VAC 5 Chapter 40, Article 48	Emissions Standards for Mobile Equipment Repair and Refinishing
9 VAC 5 Chapter 40, Article 49	Emissions Standards for Architectural and Industrial Maintenance
9 VAC 5 Chapter 40, Article 50	Emissions Standards for Consumer Products
9 VAC 5-40-310 of 9 VAC 5 Chapter 40, Article 4	General Process Operations - Standard for Nitrogen Oxides (non-CTG RACT for major sources)

Schedule:

The Commonwealth will track the progress of the maintenance demonstration by periodically updating the emissions inventory.

The Commonwealth will develop and submit periodic (every three years) emission inventories prepared under EPA’s consolidated Emission Reporting Regulation (40 CFR 51, subpart A), beginning in 2005.

The following schedule for adoption, implementation and compliance applies to the contingency measures concerning non-CTG RACT requirements. It would also apply to the imposition of the area source VOC regulations if those regulations had not already been implemented due to other triggers or provisions of the maintenance plan.

Notification received from EPA that a contingency measure must be implemented, or three months after a recorded violation.

Applicable regulation to be adopted 6 months after this date.

Applicable regulation to be implemented 6 months after adoption.

Compliance with regulation to be achieved within 12 months of adoption.

Emissions Inventory:

Total VOC Emissions for 2005-2018 (TPD)

Source Category	2005 VOC emissions	2011 VOC emissions	2018 VOC emissions
Point	32.705	36.074	39.900
Area ¹	54.760	60.315	68.331
Mobile ²	43.518	32.343	23.845
Nonroad	20.438	15.898	15.515
Total	151.421	144.630	147.591

¹ Includes vehicle refueling emissions and the benefits of selected local controls (Stage I, CTG RACT, and open burning). Also includes site/project specific emissions estimates and projections.

² Includes transportation provisions.

Total NOx Emissions for 2005-2018 (TPD)

Source Category	2005 NOx emissions	2011 NOx emissions	2018 NOx emissions
Point	77.281	84.296	90.521
Area ¹	26.501	27.417	28.169
Mobile ²	67.155	43.661	26.827
Nonroad	16.862	13.118	8.641
Total	187.799	168.492	154.158

¹ Includes selected local controls (open burning).

² Includes transportation provisions.

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