

Memorandum

November 17, 2006

TO: MWAQC Technical Advisory Committee
 FROM: Jeff King, COG/DEP
 Subject: Contingency Plan for the 8-hour Ozone SIP

This memorandum presents information on possible approaches to meeting Contingency Plan Requirements for the 8-hour ozone SIP for the Washington, DC region. Reductions from contingency measures must be above and beyond the reductions applied to demonstrate RFP and attainment, and reductions must be available no later than the year following identification of the failure (see Attachment 1).

Contingency Plan for Reasonable Further Progress (RFP) (2008-2009)

As shown in the Table 1, the region can demonstrate 18 percent RFP. The RFP contingency requirement may be met by including in the SIP a demonstration of 18 percent RFP and by attributing the additional 3 percent reduction above the 15 percent requirement to specific measures.

Table 1

16-Nov-06

**REASONABLE FURTHER PROGRESS - DRAFT RESULTS
 Washington, DC-MD-VA 8-Hour Ozone Nonattainment Area**

RFP 18 % Reduction Target	
VOC =	16
NOx =	2
Total =	18

VOC

Source	Base Year 2002 t/d	RFP Adj 2002 t/d	RFP Adj 2008 t/d	Non-creditable (RFP Adj 2002 - RFP Adj 2008) t/d	Adj BY 2002 (BY 2002 - Non- creditable) t/d	RFP Target (2008) t/d	2008 Controlled t/d
Point	12.91	12.91	12.91	0.00	12.91		13.98
Area	199.76	199.76	199.76	0.00	199.76		191.83
Non-road	125.49	125.49	125.49	0.00	125.49		92.27
On-road	116.92	166.55	154.10	12.45	104.47		70.98
Total	455.08	504.71	492.26	12.45	442.63	371.81	369.06

NOx

Source	Base Year 2002 t/d	RFP Adj 2002 t/d	RFP Adj 2008 t/d	Non-creditable (RFP Adj 2002 - RFP Adj 2008) t/d	Adj BY 2002 (BY 2002 - Non- creditable) t/d	RFP Target (2008) t/d	2008 Controlled t/d
Point	220.60	220.60	220.60	0.00	220.60		228.96
Area	24.25	24.25	24.25	0.00	24.25		26.93
Non-road	85.66	85.66	85.66	0.00	85.66		76.87
On-road	266.66	308.24	276.63	31.61	235.05		160.30
Total	597.17	638.75	607.14	31.61	565.56	554.25	493.06

The measures that can be attributed to providing the additional 3 percent reduction above the 15 percent requirement could include 2009 reductions from Portable Fuel Container Phase I Rule; AIMS Phase I Rule; Consumer Products Phase I Rule; Mobile Equipment Repair and Refinishing Rule (MERR); and the Solvent Cleaning Rule.

Contingency Plan Options for Attainment Failure (2009-2010)

The attainment contingency requirement can be met by demonstrating that emission reduction benefits from specific measures occurring after 2009 meet or exceed 3 percent of the Adjusted 2002 Base Year inventory. Table 2 lists the Attainment Contingency Requirements.

Table 2. Attainment Contingency Requirement

	VOC (tpd)	NOx (tpd)
2002 Adjusted Base Year Inventory	442.63	565.56
3 percent requirement*	13.3	17

*Minimum of 0.3 % VOC required.

Options to meet the 3 percent requirement are listed in the Table 3. The emission reductions from any selected contingency measure must be available in 2010. At this time, emission reduction benefits for Options 1-3 in 2010 are not yet available.

Table 3. Possible Contingency Measures for 8-hour Ozone SIP

Options	Measure	Implementation Timeframe	Emission Reduction Potential	Implementation Issues
Measures Already Scheduled for Implementation				
Option 1	Tier 2 Motor Vehicle Emission Standards	2010	pending	Requires 2010 mobile budget.
Option 2	Heavy Duty Diesel Engines Rule (2004 and 2007)	2010	pending	Requires 2010 mobile budget.
Option 3	Phase I VOC Rules (Solvent Cleaning, PFC, MERR, CP, AIMS)	2010	pending	Federal rule possible for certain categories.
Option 4	Nonroad Heavy Duty Diesel Rule (2004)	2010	2.5 - 6.3 tpd (VOC) 1.9 - 3.7 tpd (NOx)	Dependent on fleet turnover.
Possible New Measures				
	Phase II VOC Rules + Adhesives and Sealants	2010	pending	Model rule still under development.
	Additional EGU Controls	2011-2012	5-10 tpd NOx	Reductions not available in 2010.
	ICI Boiler Standards	2010-2012	2-3 tpd NOx	Model rule still under development.
	Incinerator Controls	2010-2012	3-4 tpd NOx	Model rule still under development.
	Distributed Generation Rule	Unknown	1-3 tpd NOx	Model rule development has not been initiated.
	Upwind Controls	2010-2012	pending	May require legislation.

Recommendation

In addition to developing an 18 percent plan to satisfy the RFP contingency requirement and developing anticipated mobile source reductions for 2010, staff recommends projecting benefits of VOC measures in 2010 to assess whether reductions exceed the Contingency requirement.

Attachment 1. Clean Air Act and EPA Guidance on Contingency Plan

General

CAA 172(c)(9) specifies that "Such plan shall provide for the implementation of specific measures to be undertaken if the area fails to make reasonable further progress, or to attain the national primary ambient air quality standard by the attainment date applicable under this part. Such measures shall be included in the plan revision as contingency measures to take effect in any such case without further action by the State or the Administrator."

EPA has also promulgated regulations that address the need for a contingency plan. According to the 69 FR No. 84 p.71650, "under the CAA, 8-hour ozone nonattainment areas subject only to subpart 1, as well as those classified under subpart 2 as moderate, serious, severe, and extreme must include in their SIPs contingency measures consistent with sections CAA 172(c)(9) and 182(c)(9), as applicable. Contingency measures are additional controls to be implemented in the event the area fails to meet a RFP milestone or fails to attain by its attainment date. These contingency measures must be fully adopted rules or measures which are ready for implementation quickly upon failure to meet milestones or attainment."

Plan Submittal

"The contingency measures SIP should accompany the attainment demonstration SIP required for submission by June 15, 2007." (69 FR No. 84)

Required Reductions

"The CAAA preamble requires that the contingency measures generally must provide reductions of 3 percent of the emissions from the adjusted base year inventory. The reductions must be achieved in the year following that in which the failure has been identified. Three percent represents one year's worth of reductions under the post 1996 rate-of-progress requirement. EPA has determined that States must adopt a minimum of 0.3 percent in VOC measures of the 3 percent contingency measure requirement to be legally defensible. The minimum contingency plan could contain up to 2.7% of the baseline NOx emissions." (appendix D of the Post-1996 Rate of Progress Plan and Attainment Demonstration Guidance).

"For milestone failures, EPA only requires that contingency measures be implemented to compensate for the degree of failure. 2 % => 2%. For attainment failures, EPA requires all contingency measures be implemented." (page 50 EPA Guidance on the Post-1996 Rate of Progress Plan and Attainment Demonstration).

Trigger Mechanism

"The SIP should clearly state the trigger mechanism, a schedule of implementation of the measures, and an indication that the measures will be implemented with no further action by the State or EPA." (page 49 EPA Guidance on the Post-1996 Rate of Progress Plan and Attainment Demonstration).

Potential Contingency Measures

EPA also writes: "States could adopt measures that are required for the next higher classification to fulfill their contingency measures requirement. The cutpoints for stationary or area sources could also be lowered for already adopted control measures in the control strategy." (page 50 EPA Guidance on the Post-1996 Rate of Progress Plan and Attainment Demonstration).

EPA has approved contingency reductions from measures already scheduled for implementation [see, "Phase 2" final rule preamble at page 71651, 3rd column (70 FR at 71651, November 29, 2005)]:

The CAA states that contingency measures are to be 'specific measures to be undertaken if the area fails to make reasonable further progress, or to attain * * * by the attainment date.' The April 16, 1992 General Preamble provided the following guidance: 'States must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions such as public hearings or legislative review. In general, EPA will expect all actions needed to affect full implementation of the measures to occur within 60 days after EPA notifies the State of its failure.' (57 FR 13512). This could include Federal measures and local measures already scheduled for implementation.

The EPA has approved numerous SIPs under this interpretation—i.e., that use as contingency measures one or more Federal or local measures that are in place and provide reductions that are in excess to the attainment demonstration or RFP plan. (62 FR 15844, April 3, 1997; 62 FR 66279, December 18, 1997; 66 FR 30811, June 8, 2001; 66 FR 586 and 66 FR 634, January 3, 2001.) The key is that the statute requires extra reductions that are not relied on for RFP or attainment and that are in the demonstration to provide a cushion while the plan is revised to meet the missed milestone. In other words, contingency measures are intended to achieve reductions over and beyond those relied on in the attainment and RFP demonstrations. Nothing in the statute precludes a State from implementing such measures before they are triggered.

Use of Mobile Benefits for Contingency Requirement

EPA also refers to action on a Connecticut SIP (for an area with a 2007 attainment date). This statement was made in response to a comment that there was no contingency plan for failure to attain.

"The attainment demonstration SIP for this area does not specify any specific measures as contingency measures. After 2007, the attainment date that EPA is approving for the area, there are a number of EPA measures that will achieve significant emission reductions that the SIP does not rely on or take credit for. These include continuing reductions from EPA's Tier 2 tailpipe standards and EPA's standards for a variety of non-road sources. The EPA has analyzed the Greater Connecticut SIP and has estimated that the contingency obligation would be approximately 10.5 tons per summer day (tpsd) in ozone precursor emission reductions. Reductions from the federal non-road and the Tier 2 tailpipe standards during

the time frame contingency measures would need to be implemented for failure to attain (i.e., by May 2009) are estimated to be at least 12.1 tpsd, which would cover the contingency obligation for this area."