8. Contingency Measures

8.1 USEPA Requirements

The maintenance plan must include contingency measures, as necessary, to promptly correct two future situations. The first situation is an inventory estimate that indicates the Washington DC-MD-VA area had actual emissions of either SO₂, NO_X, or PM_{2.5} in any future year that were greater than that of the attainment year inventories listed in Table 4-1. The second situation is any NAAQS violation that occurs after redesignation of an area. The plan should include measures to be adopted, a schedule and procedures for adoption and implementation, and a specific time limit for action. Specific triggers that would put the plan into motion must be identified. This plan is considered to be an enforceable part of the SIP and should ensure that the contingency measures are adopted explicitly once they are triggered.

8.2 Washington DC-MD-VA Approach

The ability of the Washington DC-MD-VA nonattainment area to stay in compliance with the 1997 PM_{2.5} NAAQS depends at least partially on the level of NO_X, SO₂, and primary PM_{2.5} emissions in the region. Emissions are projected to stay well below the 2007 attainment year levels, through 2025. However, if emissions increase, the area may experience a PM_{2.5} violation. To address this unlikely situation, the District of Columbia, the State of Maryland, and the Commonwealth of Virginia have developed a contingency plan. The situations described below would trigger the implementation of the contingency measures as described in Section 8.2.1, Section 8.2.2, or Section 8.2.3.

- Annual actual emissions of SO₂, NO_X, or PM_{2.5} exceeding the attainment year inventories in Table 4-1.
- Any annual exceedance (annual average for one year at any federal reference method monitor in the Washington DC-MD-VA nonattainment area) of 15.0 μg/m³ or greater.
- Any violation (three year average of the annual average at any federal reference method monitor in the Washington DC-MD-VA nonattainment area) of 15.0 μg/m³ or greater.

8.2.1 Exceedance of the Attainment Year Emissions Inventory

Should any future year emissions inventory data indicate that the Washington DC-MD-VA area's total emissions of SO₂, NO_X, or PM_{2.5} exceeded the levels in Table 4-1, the District of Columbia, the State of Maryland, and the Commonwealth of Virginia would first undertake an audit to determine whether inventory refinements were needed. This audit may include, but would not be limited to, a determination that appropriate models, control strategies, monitoring strategies, planning assumptions, industrial throughput, and production data were used in the attainment year and future year estimates. If this audit does not reconcile the originally estimated emissions exceedances, then the District of Columbia, the State of Maryland, and the Commonwealth of Virginia each commit to implementing one or more of the state-defined programs listed in Table 8-1 so that future total emission estimates for the Washington DC-MD-VA area will not exceed those listed in Table 4-1.

8.2.2 Near Term Contingency Measures for Air Quality Exceedances

If an annual exceedance or violation of $15.0 \,\mu\text{g/m}^3$, as described in Section 8.2, occurs prior to January 1, 2013, the Maryland Healthy Air Act's second phase will provide significant emissions reductions of precursors to $PM_{2.5}$. This regulation, included in COMAR 26.11.27, requires additional SO_2 reductions beginning January 1, 2013, for applicable coal-fired power plants in Maryland. These applicable units include coal-fired boilers located at the Morgantown Power Plant, the Dickerson Power Plant, and the Chalk Point Power Plant in the Washington DC-MD-VA nonattainment area. In 2013 the allowable tonnage cap for the units at these facilities will be reduced from 24,209 tpy of SO_2 to 18,541 tpy of SO_2 , a reduction of almost 24 percent. This regulation has the added benefit of already being codified; these reductions will take place in January of 2013 without further action by the State of Maryland.

8.2.3 Long Term Contingency Measures

If an annual exceedance of 15.0 μg/m³, as described in Section 8.2, occurs after January 1, 2013, the District of Columbia, the State of Maryland, and the Commonwealth of Virginia each commit to implementing one of the state-defined programs listed in Table 8-1, which applies to their individual jurisdictions, to garner additional emission reductions for air quality improvement.

If an annual violation, as described in Section 8.2, occurs after January 1, 2013, the District of Columbia, the State of Maryland, and the Commonwealth of Virginia each commit to implementing two or more of the state-defined programs listed in Table 8-1, which apply to their individual jurisdictions, to garner additional emission reductions for air quality improvement.

PM_{2.5} Reasonable Available Control Measure (RACM) Determination

SO₂ RACM Determination (DC & VA portions of the Washington DC-MD-VA area)

Table 8-1: Contingency Control Measures

NO_x RACM Determination

Non Road Diesel Emission Reduction Strategies

Low Sulfur Home Heating Oil Requirements (DC & MD portions of the Washington DC-MD-VA area)

Alternative Fuel and Diesel Retrofit Programs for Fleet Vehicle Operations

Concrete Manufacturing – Wet Suppression Upgrade Requirements

8.2.4 Contingency Measure Implementation Schedule

The District of Columbia, the State of Maryland, and the Commonwealth of Virginia commit to the implementation of any long term contingency measure on the following schedule:

- Schedule onset: notification received from USEPA that a contingency measure must be implemented, or three months after quality assured data determine that an exceedance or violation occurred within the previous year.
- Applicable regulation or program to be adopted six months after this date.
- Applicable regulation to be implemented six months after adoption.
- Compliance with regulation, or full program implementation, to be achieved within 12 months of adoption.