

6.0 REASONABLY AVAILABLE CONTROL MEASURE (RACM) ANALYSIS

Section 172(c)(1) of the Clean Air Act requires state implementation plans (SIPs) to include an analysis of reasonably available control measures (RACM). This analysis is designed to ensure that the Washington region is implementing all RACM in order to demonstrate attainment with the 1997 PM_{2.5} NAAQS on the earliest date possible.

6.1 Statutory and Regulatory Requirements for RACM Analysis

The statutory RACM requirement can be found in Section 172(c)(1) of the Clean Air Act, which directs states to “provide for implementation of all reasonably available control measures as expeditiously as practicable.” The regulatory RACM requirement for a PM_{2.5} SIP revision can be found at 40 C.F.R. Section 51.1010; this section requires

- 51.1010 (a) For each PM_{2.5} nonattainment area, the State shall submit with the attainment demonstration a SIP revision demonstrating that it has adopted all reasonably available control measures (including RACT for stationary sources) necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements. The SIP revision shall contain the list of the potential measures considered by the State, and information and analysis sufficient to support the State's judgment that it has adopted all RACM, including RACT.
- (b) In determining whether a particular emission reduction measure or set of measures must be adopted as RACM under section 172(c)(1) of the Act, the State must consider the cumulative impact of implementing the available measures. Potential measures that are reasonably available considering technical and economic feasibility must be adopted as RACM if, considered collectively, they would advance the attainment date by one year or more.

6.1.1 Discussion of Reasonable Control Measures

During the period of 2002 through 2005 the State of Maryland, the Commonwealth of Virginia, and the District of Columbia implemented control measures described in Chapter 5 of this SIP. Significant additional control measures have already been adopted and are planned for implementation in 2009, including Maryland's Healthy Air Act (HAA) and the Clean Air Interstate Rule (CAIR). As a result of control measures currently in effect, the Washington region was able to reduce fine particulate emissions to demonstrate compliance with the PM_{2.5} NAAQS (1997) based on the 3-year Design Value for 2003-2005 and for 2004-2006. Additionally, modeling data provided in Chapter 9 demonstrates that continued implementation of these measures along with the HAA and CAIR will allow for continued compliance with the PM_{2.5} NAAQS (1997) on or before April 2010, in accordance with 40 C.F.R. Section 51.1004.

6.1.2 Evaluation of RACM for Purposes of Achieving Attainment

In accordance with 40 C.F.R. Section 51.1010, as part of the SIP revision, the state is required to submit a demonstration that it has adopted all RACM, including RACT, necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements. In evaluating a particular measure or set of measures, this section directs the state to consider the cumulative impact of implementing the available measures and to implement reasonably available potential measures if, considered collectively, they would advance the attainment date by one year or more.

An evaluation of the control measures described in detail in Chapter 5 of this SIP demonstrates that the cumulative impact of these, previously adopted and on-going, measures has been sufficient to comply with the PM_{2.5} NAAQS (1997) based on 2003-2005 ambient monitoring data. As discussed in Chapter 1, the Washington area's PM_{2.5} annual Design Value for 2003-2005 is 14.6 ug/m³.¹ The Washington region therefore can demonstrate that implementation of such measures is sufficient for purposes of attaining the standard on or before April 2010. Furthermore, as discussed in Chapter 1, the region has demonstrated continued compliance with the PM_{2.5} NAAQS (1997) through 2007. Therefore, at this time, the Washington area has implemented all RACM necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements. No additional measures are necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements. For these same reasons, there are no potential measures that would advance the attainment date by one year or more.

Additionally, the time required to implement new regulatory programs in the State of Maryland, the Commonwealth of Virginia, and the District of Columbia is greater than one year. A comprehensive review of a complete list of potential control measures was completed in 2007. A summary of the results of the analysis is provided in Appendix H. The analysis found that there are no additional measures beyond those already on the books that could be adopted and implemented by January 1, 2008.

6.2 Summary

6.2.1 RACM Determination

The State of Maryland, the Commonwealth of Virginia, and the District of Columbia will continue to implement the RACM measures already adopted and described in Chapter 5 of this SIP. The above analysis establishes that these measures contributed to the region being able to comply with the PM_{2.5} NAAQS (1997) based on 2003-2005 Design Value. Therefore, this analysis demonstrates that there are no additional measures that are necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP

¹ The Design Value for 2004-2006 is 14.5 ug/m³.

requirements and that there are no potential measures that if considered collectively would advance the attainment year by one year or more. The above analysis meets the applicable statutory requirements set forth at Section 172(c)(1) of the Clean Air Act and the applicable regulatory requirements set forth at 40 C.F.R. Section 51.1010.

6.2.2 RACT Applicability

40 CFR 51.1010 notes that for each PM_{2.5} nonattainment area, a SIP revision must be submitted that demonstrates all RACM, including RACT for stationary sources, necessary to demonstrate attainment as expeditiously as practicable have been adopted. The section of the implementation rule goes on to state that potential measures that are reasonably available considering technical and economic feasibility must be adopted as RACM if, considered collectively, they would advance the attainment date by one year or more. As discussed in Section 6.2.1, the states determined that there are no additional control measures that could be adopted by January 1, 2008. Further, existing measures, and those planned for implementation by 2009, are expected to enable the region to continue to demonstrate compliance with the PM_{2.5} NAAQS (1997) through the 2009 attainment date. As such, no further actions on RACT are warranted.