

MEMORANDUM

May 14, 2013 (*revised from 3/12/13*)

To: MWAQC Technical Advisory Committee

From: Sunil Kumar
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Subject: Options for Attainment of 2008 Ozone NAAQS (0.075 ppm/75 ppb)

The purpose of this memorandum is to provide the status of the current ozone data in the Washington DC-MD-VA 2008 8-hour ozone nonattainment area and various options available for the attainment of the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS).

EPA uses the design value parameter for ozone for the purposes of designating an area and determining its attainment for the above ozone NAAQS. The design value for ozone is based on the 4th highest daily maximum 8-hour ozone concentrations averaged over three consecutive year period. If this value is below the ozone NAAQS in the attainment year, then the region is determined to be in attainment of this NAAQS. The 2008 8-hour ozone NAAQS is 0.075 ppm (75 ppb).

Ozone Designation for the Washington Region & Attainment Deadline

EPA designated the Washington region as “Marginal” nonattainment area for the 2008 8-hour ozone NAAQS. This designation became effective on July 20, 2012 and was based on the certified 2008-2010 regional ozone design value of 0.081 ppm. An area is designated as Marginal nonattainment area if its design value is between 0.076 ppm and 0.085 ppm. The attainment date for the Marginal area is December 31, 2015.

Current Ozone Data & Attainment Status of the Washington Region

In 2011 the ozone design value increased to 0.082 ppm from 0.081 ppm in 2010. Based on preliminary data for the 2012 season, the design value increased to 0.087 ppm in 2012. If EPA were to designate the region based on the 2012 data, the Washington region would be in the “Moderate” nonattainment area category. The range for classifying an area as Moderate is between 0.086 ppm-0.100 ppm. Because the attainment date for a Marginal nonattainment area is December 31, 2015, EPA will determine attainment using the 2015 design value based on the data for the period 2013 through 2015. The certified 2013-2015 data will be available by June 2016.

Scenarios for Attainment of 2008 Ozone NAAQS & Associated Consequences

A. No action, wait until 2015 to see if the region attains the NAAQS by 2015

1. If the region does not attain the standard by the attainment date (December 31, 2015), EPA will reclassify the region to the Moderate designation by June 30, 2016 at the latest.

2. Attainment date for the reclassified Moderate area would be December 31, 2018 leaving about three years to reduce emissions and attain the NAAQS. Reasonable further progress (RFP) and attainment plans will need to be submitted in short timeframes.
3. If the reclassified moderate area does not attain by December 31, 2018, then EPA would reclassify the region to the Serious designation leading to more stringent requirements.

B. Wait until 2015 to seek extension of attainment date based on clean data

States can request for up to two 1-year extensions of the attainment dates, if there is no more than one ozone exceedance day in the entire nonattainment area in the year preceding the extension year.

Therefore, the first extension could be requested at the end of the 2015 ozone season to extend the attainment date to December 31, 2016, if the region observes clean data in the 2015 season. The second request for extension based on clean data observed in the 2016 ozone season will extend the attainment date to December 31, 2017.

Based on the current data, this seems to be a highly unlikely scenario (average number of exceedance days based on the last three years of data = ~24/year). If the region does observe clean data in 2015, but observes bad data in 2016 leading to nonattainment by 2016, EPA will reclassify the region to Moderate. There will be two years left to attain the NAAQS and less than one year left to submit RFP and attainment plans. Similarly, if the region observes clean data in 2015 and 2016, but observes bad data in 2017 leading to nonattainment by 2017, EPA will reclassify the region to Moderate and there will be only one year left to attain the NAAQS and less than one year left to submit RFP and attainment plans.

C. Request voluntary reclassification to Moderate designation

States can request voluntary reclassification from the current Marginal designation to the Moderate designation.

1. A request for voluntary reclassification will extend the attainment date to December 31, 2018 providing additional time to reduce emissions and sufficient time to develop Attainment plans for the 2008 ozone NAAQS. RFP plan would also need to be submitted.
2. If the reclassified moderate area does not attain by December 31, 2018, then EPA would reclassify the region to the Serious designation leading to more stringent requirements.
3. Steps for Requesting Voluntary Reclassification - Letters from the Governors of Maryland and Virginia and the Mayor of Washington, DC or any State official authorized to submit SIP (depending on procedure followed by individual States) would be required to be submitted to EPA. The letter would request voluntary reclassification for their individual jurisdiction within the Washington DC-MD-VA 2008 8-hour ozone nonattainment area from the current Marginal nonattainment area to the requested Moderate nonattainment area. The letter can include reasons for such a request (e.g., likelihood of not attaining the NAAQS based on the current air quality data trend) and a commitment to submit RFP and Attainment Plans for the Moderate ozone NAA by the required submittal dates.¹ For an interstate nonattainment area such as the Washington DC-

¹ Example - <http://www.airquality.org/plans/federal/ozone/8hr1997/Reclass/index.shtml>

MD-VA 2008 8-hour ozone nonattainment area, the CAA provides no guidance on how EPA can proceed when not all the States with parts of that area request the voluntary reclassification. Thus, for any request for an interstate area to proceed smoothly, EPA would need to receive a voluntary reclassification request from all States involved.

4. Requirements for Moderate Ozone Nonattainment Area SIP -
 - Develop RFP Plan - 15% VOC or NO_x reduction from the base year to attainment year
 - Develop Attainment Plan (SIP)
 - Develop emissions inventories - Base, Reasonable further progress (RFP), and Attainment years
 - Reasonably Available Control Measures (RACM)
 - Reasonably Available Control Technology (RACT)
 - Contingency measures
 - Maintain all control programs previously adopted
 - Attainment demonstration (Modeling required)

D. Pursue emissions control planning in anticipation of Moderate designation

Based on the trend in ozone design values for the period 2008-2010, 2009-2011, and 2010-2012 (preliminary data), it appears that the Washington region may not attain the 2008 ozone standard by 2015. If the region is not able to attain the standard by that date, then EPA will reclassify the region to Moderate nonattainment area in 2016. States can undertake emissions control strategies and planning in anticipation of the reclassification to a higher level without actually requesting a formal voluntary reclassification. Development of a RFP plan involving 15% VOC or NO_x emission reduction between the base year (2011/2012) and the attainment year (2018) could be part of such a strategy. The RFP plan also has the potential to advance the attainment date for the Moderate nonattainment area.

Recommendation

Staff recommends that a comprehensive technical workshop be held to discuss the latest air quality and emissions data, and trends and the results from the OTC modeling scenarios to assess the likelihood of the Washington region attaining the 2008 ozone standard by December 31, 2015. Based on the outcome of the above analysis, states will discuss if any action is needed.