

Response to EPA Comments on Draft Redesignation Request and Maintenance Plan for the Washington DC-MD-VA 2008 Ozone NAAQS Marginal Nonattainment Area

General Comment: The Redesignation Request and the Maintenance Plan documents should indicate that emissions are reported in ozone season tons per day, not tons per day. Also, please define “ozone season tons per day.”

Response: Will replace “tons per day” to “ozone season tons per day” throughout the document. Will define “ozone season tons per day” before the last paragraph at page 16 (after section on GenOn closure) in the redesignation request, where the reference to ozone season is first made in the document. Will define “ozone season tons per day” after the third paragraph at page 15 in the maintenance plan, where the reference to emission data is first made in the document.

Ozone season is considered a period of time between May 1 and September 30 of each year in the Washington DC-MD-VA 2008 ozone NAAQS nonattainment area. Ozone season coincides with the summer season. Under 40 CFR 51 Subpart X *Provisions for Implementation of 8-hour Ozone National Ambient Air Quality Standard*, summer day (ozone season day) emissions are defined as an average day’s emissions for a typical summer work weekday. The state will select the particular month(s) in summer and the day(s) in the work week to be represented. The selection of conditions should be coordinated with the conditions assumed in the development of RFP plans, ROP plans and demonstrations, and/or emissions budgets for transportation conformity, to allow comparability of daily emission estimates (40 CFR 51.901).

This regulation also requires that states must report ozone NAAQS inventories as summer day emissions of NO_x and VOC (40 CFR 51.915). For this effort, average daily metrics for the weekdays in July were included as inputs to calculate onroad and nonroad daily emissions. For EGU emissions, nonEGU point emissions, area sector emissions, and MAR emissions, daily emissions were estimated based on available data for each sector and standard inventory practices. These are described in various appendices of the redesignation request and maintenance plan.

Redesignation Request for the Washington DC-MD-VA 2008 Ozone NAAQS Marginal Nonattainment Area

3.1 Attainment of the Standard

- EPA’s April 25, 2017 proposed determination of attainment by the attainment date (82 FR 19011) was based on 2013-2015 ambient air quality data, as required by Clean Air Act section 181(b)(2)(A). However, a redesignation request must be based on current air quality meeting the standard. Therefore, 2014-2016 ambient air quality data as well as preliminary 2015-2017 ambient air quality data should be referenced here to demonstrate that the area continues to meet the 2008 ozone NAAQS. The following are EPA’s suggested edits:
 - o “This section presents information that demonstrates the Washington DC-MD-VA nonattainment area ~~has~~ attained the 2008 ozone NAAQS. ~~This demonstration is~~

based on three years (2013-2015) of quality assured monitoring ~~data (2013-2015)~~ as specified in 40 CFR Part 58 (April 25, 2017, 82 FR 19011). In addition, the area continues to attain the 2008 ozone NAAQS based on the 2014-2016 quality assured ambient air quality data and preliminary 2015-2017 ambient air quality data as of August 31st, 2017.”

Response: Edits will be incorporated in the document.

3.1.3 Washington DC-MD-VA Area Ozone Concentration Data

- EPA’s area designations, which are dependent on several factors, determine if an area is a “nonattainment area.” The following are EPA’s suggested edits:
 - o “For an area to be in compliance with the 2008 ozone NAAQS, all sites within that area must be in compliance *with* the standard. Even if only one station is not in compliance, that one station ~~makes causes~~ the entire area ~~a nonattainment area-to not be in compliance with the NAAQS.~~”

Response: Edits will be incorporated in the document.

Table 3-1: Washington DC-MD-VA Area Ozone Design Values, ppm

- AQS ID 11-001-0041 River Terrace
 - o Please provide an explanation of the status of the River Terrace site, including why it is included in Table 3-1 if there are no design values for 2012-2014, 2013-2015, and 2014-2016. Also include the date EPA approved monitoring plans regarding changes in operation or discontinuation of the site, if applicable.

Response: We can add a note below Table 3-2 that can say that the River Terrace monitor was down for some time and did not have sufficient data for calculating valid design values for the period mentioned above. DOEE can add a note explaining temporary monitoring site shut downs during the above periods and provide dates when EPA approved changes in operation or discontinuation of the sites. DOEE can also mention that the monitor is currently operating and expected to have sufficient data for valid design values in the future and for this reason it included in Table 3-2. The other option is to simply delete data for this monitor in Table 3-1? DOEE is evaluating these two options.

- AQS ID 11-001-0050 Takoma Park
 - o Please provide an explanation of the status of the Takoma Park site and why there are no design values from 2009-2011 to 2013-2015. Also include the date EPA approved monitoring plans regarding changes in operation or discontinuation of the site, if applicable.

Response: DOEE needs to add a note explaining temporary monitoring site shut downs for the above periods and include dates when EPA approved changes in operation or discontinuation of the site for those periods. DOEE is developing the language.

- Please change “ppm” to “pm” and “annual ozone value” to “ozone design value”.
 - o “Figure 3-2 shows an overall decreasing trend in the 8-hour ozone design values at different monitors in the region. Over the period between 2006 and 2016, the ~~annual~~ ozone design value improved from 0.091 ppm in 2004-2006 to 0.072 ppm in 2014-2016, a decrease of 21%.”
 - o Change “ppm” to “pm” and “annual ozone value” to “ozone design value”.

Response: Edits will be incorporated in the document.

3.1.4 Quality Assurance

- “In addition, states must provide the public the opportunity to review the ambient air monitoring network annually through the Annual Ambient Air Monitoring Network Plans, in accordance with 40 CFR Part 58.10.”
 - o Please include the date of when the annual monitoring network plan was available for public review and comment.

Response:

Maryland: The Maryland draft annual network plan was available for public review and comment for 30 days from April 28, 2017 until May 28, 2017.

Virginia: The Virginia draft annual network plan was available for public review and comment for 30 days from May 15, 2017 until June 18, 2017.

District: Needs to provide dates.

- “A site can be discontinued or relocated based on the annual review and with approval from the USEPA Regional Administrator.”
 - o There should be an explanation regarding the discontinuation of the River Terrace and Takoma Park sites provided here and in Table 3-1. This explanation should include the date EPA approved of the discontinuation of the site.

Response: DOEE needs to add a note explaining temporary shut downs for the two monitors and include dates when EPA approved changes in operation or discontinuation of those two sites. DOEE is working on this.

3.1.6 Clean Data Determination

- The 2014-2016 ambient air quality data as well as preliminary 2015-2017 ambient air quality data should be referenced to demonstrate that the area continues to meet the 2008 ozone NAAQS. The following are EPA’s suggested edits:
 - o “On April 25, 2017, USEPA published a proposed rule stating that the Washington DC-MD-VA Ozone nonattainment area ~~has~~ attained the 2008 ozone NAAQS based on three years (2013-2015) of quality-assured ambient air quality data (82 FR 19011).” *In addition, the area continues to attain the 2008 ozone NAAQS based on the 2014-2016 quality-assured ambient air quality data and on preliminary 2015-2017 data as of August 31st, 2017.*

Response: Edit and the new suggested text will be incorporated in the document.

3.2.1 Base Year and Attainment Year

- EPA suggests that the acronym CO be defined here.
 - o *“In this case, that inventory is for year 2011. USEPA approved the 2011 base year information supplied by the states in accordance with §182(a)(1) and 40 CFR Part 51.1115 on May 13, 2015 (80 FR 27276) for VOC and NOx emissions and on July 23, 2015 (80 FR 43625) for carbon monoxide (CO) emissions.”*

Response: Edit will be incorporated in the document.

3.2.2 Emission Reduction Requirements

- Please include effective date for all federal measures described in section 3.2.2.
- Please include the date EPA approved HAA and the state effective date.
- Please provide evidence that the GenOn Potomac River, LLC closure is permanent and federally enforceable.

Response: Following are the effective dates and citations that will be added to the discussions for the respective federal rules.

Nonroad Small Gasoline Engines - 12/08/2008 (73 FR 59259)

Nonroad Diesel Engines Tier 1 Standards – 7/18/1994 (59 FR 31306)

Nonroad Diesel Engines Tier 2 Standards – 12/22/1998 (63 FR 56968)

Marine Engine Standards: 12/08/2008 (73 FR 59194)

Emissions Standards for Large Spark Ignition Engines: 7/1/2003 (67 FR 68242)

Railroad Engine Standards: 6/15/1998 (63 FR 18978)

Reformulated gasoline rule: 3/18/1994 (59 FR 7716)

Maryland - Healthy Air Act Effective Date – EPA approval date: 10/6/2008; Maryland effective date: 7/16/2007

Virginia - Provided the document for GenOn closure.

Maintenance Plan for the Washington DC-MD-VA 2008 Ozone NAAQS Nonattainment Area

4.1.1 Attainment of the Standard

- The 2014-2016 ambient air quality data as well as preliminary 2015-2017 ambient air quality data should be referenced to demonstrate that the area continues to meet the 2008 ozone NAAQS. EPA suggests the following edits:
 - o *“On April 25, 2017, USEPA published a proposed rule stating that the Washington DC-MD-VA ozone nonattainment area ~~has~~ attained the 2008 ozone NAAQS based on three years (2013-2015) of quality-assured ambient air quality data (82 FR 19011).” In addition, the area continues to attain the 2008 ozone NAAQS based on the 2014-2016 quality-assured ambient air quality data and on preliminary 2015-2017 data as of August 31st, 2017.*

Response: Edit and the new suggested text will be incorporated in the document.

4.1.2 Permanent and Enforceable Improvement

- *“The redesignation request showed that between 2011, the base year for the 2008 ozone NAAQS, and 2014, the attainment year for the 2008 ozone NAAQS, NOX and VOC emissions within the Washington DC-MD-VA nonattainment area decreased by 33.9% and 13.4% respectively.”*
 - o Please reference Table 3-2 in the redesignation request and explain why these values are different from those in Table 3-2.

Response: Values mentioned in Table 3-2 the redesignation request are correct. Values in the maintenance plan in the above-mentioned paragraph will be replaced with these values.

4.3 Commitment to Revise Plan

- EPA recommends either removing or revising section 4.3. States are already required by CAA section 175A(B) to submit a second maintenance plan. If the 2008 ozone standard is revoked, EPA will determine through rulemaking whether a second maintenance plan is necessary after the revocation. That determination will be explained in the notice revoking the 2008 NAAQS. If the current language in section 4.3 is included in the SIP, and a state does not submit a revised maintenance plan for the revoked 2008 ozone standard, then the state would be in violation of its SIP.

Response: The entire section will be deleted.

4.4 Legal Authority to Implement and Enforce

- *“The District Department of Energy and Environment, Maryland Department of the Environment, and the Virginia Department of the Environmental Quality have the legal authorities to develop, implement, and enforce regulations regarding air pollution including the requirements of this SIP submittal.”*
 - o Please include specific citations to relevant state regulations to support that the state has the legal authority to implement and enforce the requirements.

Response:

The following text will be added after the above mentioned sentence.

Following are the details of the state regulations supporting the legal authority of states to implement and enforce those regulations.

Virginia

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare.

Maryland

Legal Authority to Implement and Enforce - Maryland Annotated Code § 2-103

Authority for MDE to set emission standards and ambient air quality standards for each air quality control area in the State- Environment Article, §2-302 (a)-(d), Annotated Code of Maryland

Authority for MDE to enforce the standards and impose penalties- Environment Article, §§2-601-614, Annotated Code of Maryland

Please also refer to the approved sections of MD's 110(a)(2) 2008 ozone SIP

District of Columbia

Information to be provided by DOEE.

Figure 4-2

- Please add "ppm".
 - o *"The design value for the 2008 ozone NAAQS for the Washington DC-MD-VA region is 0.072 ppm for years 2014-2016."*

Response: Edit will be incorporated in the document.

4.6 Legal Authority – Verify Continued Attainment

- *"The District of Columbia, State of Maryland, and the Commonwealth of Virginia have the legal authority to implement and enforce specified measures necessary to attain and maintain the NAAQS. Key regulatory elements that each state will keep in place to maintain attainment are as follows: Shutdown requirements, permitting requirements, and regulatory requirements; Vehicle inspection and maintenance (I/M) program requirements; Emission statement requirements."*
 - o Please include specific citations to relevant state regulations.

Response: The following text will be added after the above mentioned sentence.

The above mentioned requirements can be found in the following regulations.

Virginia

Shutdown requirements: 9VAC5 Chapter 20 General Provisions Part II Air Quality Programs (9VAC5-20-220 Shutdown of a stationary source).

Permitting requirements: 9VAC5 Chapter 80 Permits for Stationary Sources Part II Permit Procedures Article 6 Permits for New and Modified Stationary Sources, Article 8 Permits for Major Stationary Sources and Modifications – PSD areas, and Article 9 Permits for Major Stationary Sources and Modifications – Nonattainment Areas.

I/M program requirements: 9VAC5 Chapter 91 Motor Vehicle Inspection & Maintenance Program for Northern Virginia.

Emission statement requirements: 9VAC5 Chapter 20 General Provisions Part II Air Quality Programs (9VAC5-20-160.B. Registration).

Various regulatory requirements may be found in 9VAC5 Chapter 40 Existing Stationary Sources, 9VAC5 Chapter 45 Consumer and Commercial Products, and 9VAC5 Chapter 50 New and Modified Stationary Sources.

Maryland

Emissions Statements: COMAR 26.11.01.05-1

I/M program requirements: COMAR 11.14.08

Permitting Requirements: COMAR 26.11.02 & COMAR 26.11.03

PSD Requirements: COMAR 26.11.06.14

Please also refer to the approved sections of MD's 110(a)(2) 2008 ozone SIP

District

DOEE will provide this information.

5.4.1 Point Sector Controls

- *“2008 Ozone NAAQS Reasonably Available Control Technology Requirements: As part of the Ozone Transport Region, § 184 of the CAA requires the Washington DC-MD-VA 2008 ozone NAAQS nonattainment area to implement Reasonably Available Control Technology (RACT) requirements in support of the 2008 ozone NAAQS. These requirements **once approved** will provide additional reductions of NOX and VOC in the **future** from major stationary sources within the area.”*
 - o RACT from 2008 has not been SIP approved; how is this factoring in to the emission reductions?

Response: See suggested changes above.

5.4.2 Nonroad Emission Controls and 5.4.3 On-road Emission Control

- Please include effective date for all Federal measures described in section 5.4.2 and 5.4.3.
 - o Please include details of transportation control measures (TCMs) and explain how the reductions from the TCMs were quantified. Please also change TPD to TPB.

- *“The ~~TPD~~ TPB employs many strategies to reduce emissions from mobile sources either by reducing the number of vehicle trips, the vehicle miles traveled, or both.”*

Response: Edit will be incorporated in the document.

5.5 Transportation Conformity and Motor Vehicle Emissions Budgets

- As far as safety margins/conformity buffers, please provide context so that the reader can have a better understanding of what they are and how they were determined (what represents the 20% transportation buffer). Also, in order to show the “allowed” safety margin, it may be good to show how the SIP demonstrates what the area can emit while still attaining the air quality standard compared to what the area projects it will emit from all sources. Please see the example below:
 - o If an area projects that it will emit a total of 300 tons per day (tpd) of carbon monoxide (CO) from all sources, but the SIP demonstrates that the area can emit up to 350 tpd of CO and still attain the air quality standard, the area has a safety margin of 50 tpd. In this example, CO emissions are estimated from all sources, including: Large stationary sources, such as steel mills; area sources, such as wood-burning stoves; on-road mobile sources, such as cars and trucks; and off-road mobile sources, such as construction and farm equipment. This area could allocate, through a revision to its SIP, all or some portion of the 50 tpd safety margin to their motor vehicle emissions budget for future conformity determinations, if desired.

Response: Following text will be added at the end of the first paragraph on page 21 (Section 5.5 Transportation Conformity and Motor Vehicle Emissions Budgets) to describe conformity buffers.

“Conformity buffer or safety margin is the amount by which the total projected emission from all sources of a given pollutant, is less than the total emission needed for Reasonable Further Progress (RFP), attainment or maintenance. Table 5-3 shows the differences in total emissions for VOC and NO_x from all sources between the attainment year 2014 and the intermediate year 2025 and the attainment year 2014 and the final maintenance year 2030. These differences in emissions provide estimates of the total available conformity buffers for VOC for 2025 (14.93 tpd) and 2030 (14.50 tpd) and for NO_x for 2025 (114.89 tpd) and 2030 (126.45 tpd). All or a portion of these conformity buffers can be allotted to mobile source inventories to develop MVEBs. As discussed below, only portions of the total available conformity buffers for VOC and NO_x have been used to develop the second set of mobile budgets for 2025 and 2030 in this maintenance plan.”

6. Contingency Measures

- Please explain how the states will determine which measure will be adopted, specifically, which state will be responsible for addressing the violation.

- Please clarify how many measures will be adopted if a monitor registers a fourth highest daily maximum exceeding 0.075 ppm in two consecutive years and subsequently violates the standard. Would four measures be adopted, or would that be a total of two measures?
- Please clarify how the plan will address continued exceedances or violations of the NAAQS. The plan should state that additional contingency measures will be considered.
- EPA recommends breaking this section into two. Please consider titling the first and second paragraph as “Exceedances or Violations of the 2008 Ozone NAAQS” and “Contingency Measures,” respectively.
- In Table 6.1, please add a line indicating that other regulatory measures will be identified, if necessary.

Response: The following sentence will be added on page 24 after the first sentence of the first paragraph in section 6.2 (Contingency Measures) – “The control program to be implemented will be determined by the Metropolitan Washington Air Quality Committee using the regional coordination process.” The following sentence will be added on page 24 after the last sentence of the first paragraph in section 6.2 (Contingency Measures) – “Should additional contingency measures be needed, they will be included in the SIP revision.”

- MD’s NO_x Rule Phase 1 is already effective and SIP-approved. A rule that is already in place cannot be used as a contingency measure, as contingency measures in a maintenance plan are meant to address potential future air quality problems and, therefore, need to be new measures that will achieve additional emissions reductions.

Response: Maryland’s NO_x Rule Phase I is effective and SIP-approved; however the NO_x reductions from the rule were not included in the 2025 or 2030 projection inventories. The projection inventories demonstrate that the emissions in the area are estimated to be below the 2014 base year. The Maryland NO_x Rule Phase I can then be used as a contingency measure.

Comments specific to MDE

Emission Inventory Comments from Alice Chow, Associate Director, Office of Air Monitoring and Analysis

- In the file MD_MWCOG2014DailyRR&MPPT_NPT_M-A-R_QPTtoMWCOG4.xlsx:
 - o For NonEGU & Quasi_Pt Growth Factors—The link [https://www.dllr.state.md.us/lmi/...](https://www.dllr.state.md.us/lmi/) Is for Workforce Region Industry Projections from the Maryland Occupational Projections. The spreadsheet is for 2012-2022; but the link is for 2014-2024. Please correct. Also, the DLLR EMP GF may need to be adjusted.
 - o If the workforce projection years were 2012-2022 or even 2014-2024...what was used for 2025 and 2030?
 - o Same comments for MD_PT_NPT_M-A-R_QPT_Emiss.xlsx
 - o ERTAC only provides SO₂ and NO_x emission projections. Where did the VOC estimates come from?

Response from MDE:

Item 3, MWAQC-TAC
September 5, 2017

When developing inventories to future years, projection factors from various sources are used. If the data source does not contain projection factors for the desired year, MDE linearly interpolated the existing data to the desired year. MDE will update the above mentioned spreadsheets with information to address EPA comments.

Please be aware that EPA was unable to review any emissions inventory data that was modeled using MOVES. EPA may have comments on this portion of the inventory in the future.

Comments specific to VDEQ

Emission Inventory Comments from Alice Chow, Associate Director, Office of Air Monitoring and Analysis

- In the spreadsheet for future years, please add a discussion describing the formulas used for VOCs and provide references.
- For NON EGU, the spreadsheet contained only 2 columns 2014, 2015-2030. Please explain why there's no 2025 or standalone 2030.
- For NoVA Point sources, the spreadsheet contained only 2 columns 2014, 2015-2030. Please explain why there's no 2025 or standalone 2030.

Response: VDEQ sent an updated spread-sheet with the requested discussion and revised column headings.

Please be aware that EPA was unable to review any emissions inventory data that was modeled using MOVES. EPA may have comments on this portion of the inventory in the future.