UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
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Philadelphia, Pennsylvania 19103-2029

Mr. Michael G. Dowd, Director
Air Quality Division
Virginia Department of Environmental Quality
P.O. Box 1105
629 East Main Street
Richmond, Virginia 23240

FEB 15 2013

Dear Mr. Dowd:

Thank you for giving the U.S. Environmental Protection Agency (EPA) the opportunity to review the proposed "Washington DC-MD-VA 1997 $PM_{2.5}$ Redesignation Request" and "Washington DC-MD-VA 1997 $PM_{2.5}$ Maintenance Plan," both dated January 4, 2013. EPA has reviewed the proposed redesignation request and maintenance plan. Our comments are enclosed.

Please enter these comments into the public record. We look forward to working with you to resolve these comments. Should you have any questions pertaining to EPA's review of Virginia's proposed redesignation request and maintenance plan for the Washington, DC-MD-VA 1997 $PM_{2.5}$ nonattainment area, please do not hesitate to contact me. If members of your staff have questions, they may direct them to Ms. Maria A. Pino at (215) 814-2181.

Sincerely,

Diana Esher

Diana Esher, Director
Air Protection Division

Enclosure

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EPA comments on the 1/4//2013 proposed Washington DC-MD-VA 1997 $PM_{2.5}$ Redesignation Request and Maintenance Plan

General Comments

On January 4, 2013, in *Natural Resources Defense Council v. EPA*, the U.S. Court of Appeals for the District of Columbia Circuit remanded to EPA the Final Clean Air Fine Particle Implementation Rule (72 FR 20586, April 25, 2007) and the Implementation of the New Source Review (NSR) Program for Particulate Matter Less than 2.5 Micrometers ($PM_{2.5}$) (73 FR 28321, May 16, 2008). No. 08-1250 (D.C. Cir. January 4, 2013). The Court found that EPA erred in implementing the 1997 $PM_{2.5}$ NAAQS pursuant to the general implementation provisions of subpart 1 of part D of Title I of the Act, rather than the particulate-matter-specific provisions of subpart 4 of part D of Title I. EPA is still interpreting this court decision and its potential implications for redesignation requests and maintenance plans, as well as for motor vehicle emissions budgets.

On August 21, 2012, the Court of Appeals for the D.C. Circuit issued a decision to vacate the Cross State Air Pollution Rule (CSAPR). In that decision, the Court also ordered EPA to continue administering the Clean Air Interstate Rule (CAIR) "pending the promulgation of a valid replacement." *EME Homer City Generation, L.P.* v. *EPA*, No. 11-1302 (D.C. Cir. Aug. 21, 2012), *reh'g denied* (per curiam) (Jan. 24, 2013). While the D.C. Circuit has denied a rehearing of the decision to remand CSAPR, EPA is evaluating the ramifications of that decision and its potential implications for redesignation requests and maintenance plans.

Maintenance Plan

5.2.2.4 Future Control Strategies

The second paragraph in this section reads as follows:

> The Washington DC-MD-VA area will work with jurisdictions and USEPA to demonstrate the feasibility of (and get SIP credit for) achieving reductions across the entire region from market forces that will result in cleaner products being distributed across the entire region even when the regulations driving the cleaner products have only been adopted in a part of the region.

Please clarify what is meant by "cleaner products."

Pamela F. Faggert
Vice President and Chief Environmental Officer

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Dominion®

February 25, 2013

Submitted via e-mail to: doris.mcleod@deq.virginia.gov

Ms. Doris McLeod
Air Quality Planner
Division of Air – Data Analysis and Planning
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

Regarding: Proposed Plan to Maintain Compliance with the 1997 Fine Particulate Matter ($PM_{2.5}$) National Ambient Air Quality Standard (NAAQS) in the Northern Virginia $PM_{2.5}$ Nonattainment Area (*Virginia Register*, Vol. 29, Issue 11, January 28, 2013)

Dear Ms. McLeod:

We are submitting the following brief comment on the above-referenced proposed maintenance plan for compliance with the 1997 fine particulate $PM_{2.5}$ national ambient air quality standard (NAAQS) for the northern Virginia $PM_{2.5}$ nonattainment area that DEQ intends to submit to EPA as a state implementation plan (SIP) revision. Our comment pertains to references to the 2010 SO_2 NAAQS and associated requirements for point sources contained in Section 5.2.2.1.4 of the supporting documents "Washington DC-MD-VA 1997 $PM_{2.5}$ Redesignation Request (DRAFT 01-04-13)" and "Washington DC-MD-VA 1997 $PM_{2.5}$ Maintenance Plan (DRAFT 01-04-13)".

These sections of the supporting documents appropriately point out that the new, more stringent 1-hour SO_2 NAAQS promulgated by EPA in June 2010, along with the final Utility Mercury and Air Toxics Rule (MATS) and the recently finalized Industrial/Commercial/Institutional (ICI) Boiler Maximum Achievable Control Technology standards (Boiler MACT), will further reduce SO_2 emissions both within and outside of the Washington DC-MD-VA nonattainment area beyond what has been estimated in the 2017 and 2025 inventories developed for the maintenance plan (since these rules were not yet final at the time the maintenance plan was developed). However, the documents indicate that under proposed guidance for the SO_2 standard, "facilities emitting more than 100 tpy year of SO_2 will be required to demonstrate compliance with the standard no later than 2017". Although existing EPA guidance, as currently proposed, includes this requirement, EPA announced in April 2012 that it was reevaluating its strategy for implementing the 1-hour SO_2 standard. As part of this reevaluation, EPA recently issued a strategy paper[1] describing concepts for a new/revised implementation strategy that would, if adopted and finalized, significantly increase the SO_2 emission thresholds used to determine the universe of sources for which a compliance demonstration would be required (from 2,000 to

[1] See http://www.epa.gov/airquality/sulfurdioxide/pdfs/20130207SO2StrategyPaper.pdf

3,000 tpy in populated areas and 5,000 to 10,000 tpy in other areas). In addition, the revised strategy would allow states the option of using ambient monitoring and/or modeling for demonstrating compliance with the standard. The revised strategy may also alter the implementation timeline and extend compliance deadlines beyond 2017. EPA has indicated its intent to propose revised implementation guidance by April 2013 and issue final guidance in July 2013. EPA has also indicated that it expects to issue a proposed implementation rule by late 2013 and a final implementation rule by the end of 2014.

For these reasons, we request that the following sentence be removed from Section 5.2.2.1.4 of both supporting documents:

> *"Under the new standard's proposed guidance, facilities emitting more than 100 tpy of SO_2, many of which are EGU's, will be required to demonstrate compliance with the standard no later than 2017."*

To the extent this language is retained, we request that DEQ include additional language referencing EPA's ongoing reevaluation of its strategy for implementing the SO_2 NAAQS and its recent strategy paper indicating the consideration of different source emission thresholds and a different compliance timeline. We offer, for your consideration, the following text with suggested deletions in strikeout and new text/additions in underlined format:

> *"Under the new standard's proposed guidance, <u>if finalized as currently proposed,</u> facilities emitting more than 100 tpy of SO_2, many of which are EGU's, will be required to demonstrate compliance with the standard no later than 2017. <u>However, EPA is reevaluating its strategy for implementing the standard and recently issued a strategy paper indicating its consideration of different source emission thresholds and a different compliance timeline. EPA is expected to issue revised final guidance by July 2013, and to issue a proposed implementation rule by late 2013 and a final implementation rule in 2014 that could include different requirements than indicated in EPA's current proposed guidance</u>."*

Thank you for this opportunity to provide comment. If you have any questions, please call me or Lenny Dupuis @ 804-273-3022 (leonard.dupuis@dom.com).

Sincerely,

Pamela F. Faggert

Ec: Mr. Michael Dowd (Virginia DEQ)
Mr. Thomas Ballou (Virginia DEQ)

February 19, 2013

VIA E-MAIL (rcarroll@mde.state.md.us)

Randall Carroll, Natural Resources Planner
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Ste. 730
Baltimore, MD 21230

RE: Sierra Club Comments Regarding Maryland Proposed $PM_{2.5}$ Redesignation

Dear Mr. Carroll,

Pursuant to the Maryland Department of the Environment's ("MDE's") Notice of Public Hearing, the Sierra Club submits the following comments regarding MDE's proposed Maryland Redesignation Request & Maintenance Plan State Implementation Plan for Fine Particulate Matter ($PM_{2.5}$) ("Redesignation Request") for the District of Columbia-Maryland-and Virginia ("DC-MD-VA") 1997 daily and annual $PM_{2.5}$ NAAQS nonattainment area.

As set forth below, the Redesignation Request cannot be approved at this time because it fails to meet the requirements set forth for redesignation. Specifically, the Redesignation Request must be revised to address the following issues:

(1) The Redesignation Request fails to appropriately address ammonia and volatile organic compounds ("VOCs") as $PM_{2.5}$ precursors, as is required under the D.C. Circuit's recent ruling in *NRDC v. EPA*, Case No. 08-1250 (D.C. Cir. Jan. 4, 2013);

(2) The Redesignation Request fails to adequately analyze the effect that redesignation will have on Maryland's compliance with other NAAQS, including the 2006 24-hour $PM_{2.5}$ NAAQS and 2013 annual $PM_{2.5}$ NAAQS, and with regional haze; and

(3) The Redesignation Request's draft maintenance plan fails to consider recent EPA decisions regarding mobile source emissions.

The redesignation request in its current form must be revised and should only resubmitted once MDE has addressed these issues.

I. BACKGROUND

A. Factual Background

In July 1997, the U.S. Environmental Protection Agency ("EPA") revised the National Ambient Air Quality Standard ("NAAQS") for particulate matter and established primary

(health-based) annual and 24-hour standards for fine particulate matter ("$PM_{2.5}$"). *See* 62 Fed, Reg. 38652 (July 18, 1997). The annual standard was set at 15.0 micrograms per cubic meter ($\mu g/m^3$), based on the 3-year average of annual mean $PM_{2.5}$ concentrations and the 24-hour standard was set at 65 $\mu g/m^3$, based on the 3-year average of the 98th percentile of 24-hour concentrations.

As MDE has recognized, exposure to elevated levels of $PM_{2.5}$ is associated with numerous adverse human health effects:

> The main impacts of $PM_{2.5}$ on human health are on the respiratory system and the cardiovascular system. Children, the elderly, and individuals with pre-existing pulmonary or cardiac disease are the most susceptible to $PM_{2.5}$ pollution. Complications that can arise from exposure to $PM_{2.5}$ include decreased lung function, chronic bronchitis, respiratory symptoms such as asthma attacks and difficulty breathing, nonfatal heart attacks, irregular heartbeat, and premature death in individuals with pulmonary or cardiac disease.

Redesignation Request at 1

On December 17, 2004, EPA signed the final rule regarding the initial $PM_{2.5}$nonattainment areas designations for the PM2.5 standards across the country. The final rule became effective on April 5, 2005. *See* 70 Fed. Reg. 944 (January 5, 2005). The Washington DC-MD-VA area was originally designated nonattainment for the 1997 $PM_{2.5}$NAAQS based on air quality data showing that the area did not meet the 15.0 $\mu g/m^3$ annual standard.

On January 4, 2013, MDE submitted Maryland's Redesignation Request and Maintenance Plan for the DC-MD-VA nonattainment area for $PM_{2.5}$ with regards to the 1997 annual and daily standards. The Redesignation Request stated that the "DC-MD-VA region's federal reference monitors have demonstrated compliance with the 65 $\mu g/m^3$ daily standard since the inception of the $PM_{2.5}$ monitoring programs within each state." Redesignation Request at 5.

Subsequent to finalizing the 1997 daily and annual NAAQS, EPA has revised each standard. On October 17, 2006, EPA amended the $PM_{2.5}$ NAAQS to ratchet down the 24-hour standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. *See* National Ambient Air Quality Standards for Particulate Matter; Final Rule, 71 Fed. Reg. 61144 (Oct. 17, 2006). More recently, on January 15, 2013, EPA finalized its latest $PM_{2.5}$ NAAQS, again ratcheting down at least one of the applicable standards. In its January 15, 2013 final rule, EPA lowered the annual $PM_{2.5}$ NAAQS from 15.0 $\mu g/m^3$ to 12.0 $\mu g/m^3$, and retained the 24-hour $PM_{2.5}$ NAAQS at the 35 $\mu g/m^3$ level set by the agency in 2006. National Ambient Air Quality Standards for Particulate Matter; Final Rule, 78 Fed. Reg. 3086 (Jan. 15, 2013).

B. Legal Background

The Clean Air Act establishes a number of requirements that must be present in order for the EPA to approve a request to redesignate an area from nonattainment to attainment. Specifically, the EPA can only approve a redesignation request if:

> (i) the Administrator determines that the area has attained the national ambient air quality standard;
>
> (ii) the Administrator has fully approved the applicable implementation plan for the area under section 110(k);
>
> (iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions;
>
> (iv) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A; and
>
> (v) the State containing such area has met all requirements applicable to the area under section 110 and part D.

42 U.S.C. § 7407(d)(3)(E). Each one of these requirements must be met before redesignation is approved.

In light of these requirements, the Sierra Club offers the following recommendations regarding necessary revisions to Maryland's redesignation request.

II. SUBSTANTIVE COMMENTS

A. MDE Should Revise Its Redesignation Request to Address Ammonia and VOCs' Contribution to $PM_{2.5}$ In the DC-MD-VA Nonattainment Area

On January 4, 2013, the D.C. Circuit struck down EPA's Implementation Rule for $PM_{2.5}$. *NRDC v. EPA*, Case No. 08-1250 (D.C. Cir. Jan. 4, 2013). In holding that EPA impermissibly promulgated its $PM_{2.5}$ implementation rules pursuant to the general implementation provisions of Subpart I of Part D of Title I of the Clean Air Act rather than Subpart 4, the Court observed that under Subpart 4, precursor pollutants (such as ammonia) are presumptively regulated. *See id.*, slip op. at 14 n.7. Consequently, MDE's election to ignore both VOCs and ammonia, which it expressly acknowledged to be precursors of $PM_{2.5}$, *see* Redesignation Request at 9-10, is impermissible in light of the D.C. Circuit's decision in *NRDC*. This deficiency must be remedied before EPA can approve MDE's redesignation request.

B. MDE Should Revise the Draft Maintenance Plan to Consider How Redesignation Will Impact Attainment of Other NAAQS

The Clean Air Act requires that, "[t]he Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter." 42 U.S.C. § 7410(l). EPA cannot approve a redesignation without

an adequate analysis of the effects that redesignation will have on other NAAQS and visibility. With respect to the 1-hour NO_x NAAQS, the 1-hour SO_2 NAAQS, the 2008 ozone NAAQS, and visibility MDE has failed to conduct an adequate analysis. Without such an analysis, MDE cannot ensure that redesignation will not interfere with attainment or reasonable further progress of the NAAQS and thus cannot approve the redesignation.

Nonattainment areas are required to have approved Reasonable Available Control Measures ("RACM") and Reasonably Available Control Technology Programs ("RACT") for $PM_{2.5}$. Once an area reaches attainment, these requirements are stayed, halting any benefits of the programs. MDE itself stated that if EPA makes an attainment determination, this would suspend "reasonably available control measures/reasonably available control technology determinations." *See* Redesignation Request at 14. RACM and RACT programs aimed at reducing $PM_{2.5}$ also reduce levels of NO_x, SO_2, and ozone. Suspending the RACM/RACT programs has the potential to interfere with attainment of the 2006 24-hour $PM_{2.5}$ NAAQS, the 2013 annual $PM_{2.5}$ NAAQS, the 1-hour NO_x NAAQS, the 1-hour SO_2 NAAQS, and the 1997 and 2008 ozone NAAQS, as well as visibility. It also has the potential to result in Maryland being designated nonattainment for the 2006 and recently finalized 2013 $PM_{2.5}$ NAAQS.

MDE needs to demonstrate that removing this co-benefit will not interfere with NAAQS attainment, RACT, reasonable further progress and any other applicable requirement for the 2006 24-hour $PM_{2.5}$ NAAQS , the annual $PM_{2.5}$ NAAQS, 1-hour NO_x NAAQS, the 1-hour SO_2 NAAQS, the 2008 ozone NAAQS, and visibility. While MDE has shown a general trend of reductions in NO_x and SO_2, MDE fails to establish that these reductions have achieved compliance with the more recent NAAQS. Nor has MDE shown that further reductions would not be achieved in the 1-hour NO_x NAAQS, the 1-hour SO_2 NAAQS, and the 2008 ozone NAAQS by virtue of fully implementing the nonattainment SIP provisions for the $PM_{2.5}$ NAAQS. Similarly, MDE has not addressed the impacts on visibility if the areas were redesignated. Therefore, MDE's draft maintenance plan should be revised to demonstrate that redesignation will not interfere with attainment, RACT, and/or reasonable further progress of the NAAQS.

C. Maryland Should Revise Its Maintenance Plan to Include Consideration of EPA's Decision to Increase Ethanol Content in Gasoline

A nonattainment area cannot be redesignated until "the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 7505a of this title." 42 U.S.C. § 7407(d)(3)(E)(iv).

The emissions calculations for on-road mobile sources fail to consider 15% ethanol in gasoline ("E15"). EPA recently decided to allow up to 15% ethanol content in gasoline. *See* 76 Fed. Reg. 4662 (Jan. 26, 2011). An increase in ethanol content will lead to an increase in NO_x and VOCs emissions for which many cars and light duty trucks, and particularly those with pollution control devices, are not designed to process. The increase in NO_x and VOCs emissions, which contribute to $PM_{2.5}$ emissions, will most likely increase $PM_{2.5}$ emission levels.

MDE calculated on-road mobile source emissions using its mobile source emission factor model, MOVES2010a. *See* Draft Maintenance Plan at 7. There is no indication that MDE accounted for the increase in NO_x and VOCs emissions that will result from use of E15 in their calculations. Thus, for mobile source emission reductions are not permanent and enforceable, MDE must revise the Draft Maintenance Plan to fully consider the impact of E15 on NO_x and VOCs emissions.

III. CONCLUSION

Until the issues described above are appropriately addressed, the State has not met "all requirements applicable to the area under section 7410 of this title and part D of this subchapter." 42 U.S.C. § 107(d)(3)(E). Before MDE submits its Redesignation Request to EPA it should revise the Request and accompanying Maintenance Plan to address each of the above concerns.

Respectfully submitted,

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