



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R03-OAR-2020-0062; FRL-10008-86-Region 3]**

**Air Plan Approval; Maryland; 1997 8-Hour Ozone NAAQS Limited Maintenance Plan for the Kent and Queen Anne's Counties Area**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve a state implementation plan (SIP) revision submitted by the State of Maryland. This revision pertains to the Maryland Department of the Environment's (MDE) plan for maintaining the 1997 8-hour ozone national ambient air quality standards (NAAQS) for the Kent and Queen Anne's Counties area. This action is being taken under the Clean Air Act (CAA).

**DATES:** Written comments must be received on or before **[insert date 30 days after date of publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R03-OAR-2020-0062 at <https://www.regulations.gov>, or via email to [spielberger.susan@epa.gov](mailto:spielberger.susan@epa.gov). For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will

generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **For Further Information Contact** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** David Talley, Planning & Implementation Branch (3AD30), Air & Radiation Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. The telephone number is (215) 814-2117. Mr. Talley can also be reached via electronic mail at [talley.david@epa.gov](mailto:talley.david@epa.gov).

**SUPPLEMENTARY INFORMATION:** On December 18, 2019, MDE submitted a revision to the Maryland SIP to incorporate a plan for maintaining the 1997 ozone NAAQS through January 1, 2028, in accordance with CAA section 175A. On March 12, 2020, MDE submitted a technical correction to their initial submittal, which included “Appendix B – 2014 Emissions Inventory Methodology Documentation.” This appendix had been inadvertently omitted from the original submittal.

## **I. Background**

In 1979, under section 109 of the CAA, EPA established primary and secondary NAAQS for ozone at 0.12 parts per million (ppm), averaged over a 1-hour period. 44 FR 8202 (February 8, 1979). On July 18, 1997, EPA revised the primary and secondary NAAQS for ozone to set the acceptable level of ozone in the ambient air at 0.08 ppm, averaged over an 8-

hour period. 62 FR 38856 (July 18, 1997).<sup>1</sup> EPA set the 8-hour ozone NAAQS based on scientific evidence demonstrating that ozone causes adverse health effects at lower concentrations and over longer periods of time than was understood when the pre-existing 1-hour ozone NAAQS was set.

Following promulgation of a new or revised NAAQS, EPA is required by the CAA to designate areas throughout the nation as attaining or not attaining the NAAQS. On April 30, 2004, EPA designated the Kent and Queen Anne's Counties area as nonattainment for the 1997 8-hr ozone NAAQS. 69 FR 23858.

Once a nonattainment area has three years of complete, certified air quality data that has been determined to attain the NAAQS, and the area has met the other criteria outlined in CAA section 107(d)(3)(E),<sup>2</sup> the state can submit a request to EPA to redesignate the area to attainment. Areas that have been redesignated by EPA from nonattainment to attainment are referred to as "maintenance areas." One of the criteria for redesignation is to have an approved maintenance plan under CAA section 175A. The maintenance plan must demonstrate that the area will continue to maintain the standard for the period extending 10 years after redesignation, and it must contain such additional measures as necessary to ensure maintenance as well contingency measures as necessary to assure that violations of the standard will be promptly corrected.

On December 22, 2006 (effective January 22, 2007), EPA approved a redesignation request (and maintenance plan) from MDE for the Kent and Queen Anne's Counties area. 71 FR 76920. In

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<sup>1</sup> In March 2008, EPA completed another review of the primary and secondary ozone standards and tightened them further by lowering the level for both to 0.075 ppm. 73 FR 16436 (March 27, 2008). Additionally, in October 2015, EPA completed a review of the primary and secondary ozone standards and tightened them by lowering the level for both to 0.70 ppm. 80 FR 65292 (October 26, 2015).

<sup>2</sup> The requirements of CAA section 107(d)(3)(E) include attainment of the NAAQS, full approval under section 110(k) of the applicable SIP, determination that improvement in air quality is a result of permanent and enforceable reductions in emissions, demonstration that the state has met all applicable section 110 and part D requirements, and a fully approved maintenance plan under CAA section 175A.

accordance with section 175A(b), at the end of the eighth year after the effective date of the redesignation, the state must also submit a second maintenance plan to ensure ongoing maintenance of the standard for an additional 10 years.

EPA's final implementation rule for the 2008 ozone NAAQS revoked the 1997 ozone NAAQS and provided that one consequence of revocation was that areas that had been redesignated to attainment (*i.e.*, maintenance areas) for the 1997 NAAQS no longer needed to submit second 10-year maintenance plans under CAA section 175A(b).<sup>3</sup> However, in *South Coast Air Quality Management District v. EPA*<sup>4</sup> (South Coast II), the United States Court of Appeals for the District of Columbia (D.C. Circuit) vacated EPA's interpretation that, because of the revocation of the 1997 ozone standard, second maintenance plans were not required for "orphan maintenance areas," (*i.e.*, areas like Kent and Queen Anne's Counties) that had been redesignated to attainment for the 1997 NAAQS and were designated attainment for the 2008 ozone NAAQS. Thus, states with these "orphan maintenance areas" under the 1997 ozone NAAQS must submit maintenance plans for the second maintenance period.

As previously discussed, CAA section 175A sets forth the criteria for adequate maintenance plans. In addition, EPA has published longstanding guidance that provides further insight on the content of an approvable maintenance plan, explaining that a maintenance plan should address five elements: 1) an attainment emissions inventory; 2) a maintenance demonstration; 3) a commitment for continued air quality monitoring; 4) a process for verification of continued attainment; and 5) a contingency plan.<sup>5</sup> The 1992 Calcagni memo provides that states may generally demonstrate maintenance by either performing air quality modeling to show that the

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<sup>3</sup> See 80 FR 12315 (March 6, 2015).

<sup>4</sup> 882 F.3d 1138 (D.C. Cir. 2018).

<sup>5</sup> "Procedures for Processing Requests to Redesignate Areas to Attainment," Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (Calcagni Memo).

future mix of sources and emission rates will not cause a violation of the NAAQS or by showing that future emissions of a pollutant and its precursors will not exceed the level of emissions during a year when the area was attaining the NAAQS (*i.e.*, attainment year inventory). See Calcagni Memo at p. 9. EPA further clarified in three subsequent guidance memos describing “limited maintenance plans” (LMPs)<sup>6</sup> that the requirements of CAA section 175A could be met by demonstrating that the area’s design value<sup>7</sup> was well below the NAAQS and that the historical stability of the area’s air quality levels showed that the area was unlikely to violate the NAAQS in the future. Specifically, EPA believes that if the most recent air quality design value for the area is at a level that is below 85% of the standard, or in this case below 0.071 ppm, then EPA considers the state to have met the section 175A requirement for a demonstration that the area will maintain the NAAQS for the requisite period. Accordingly, on December 18, 2019, MDE submitted an LMP for the Kent and Queen Anne’s Counties area, demonstrating that the area will maintain the 1997 ozone NAAQS through January 1, 2028, *i.e.*, through the entire 20-year maintenance period.

## **II. Summary of SIP Revision and EPA Analysis**

MDE’s December 18, 2019 SIP submittal outlines a plan for continued maintenance of the 1997 ozone NAAQS which addresses the criteria set forth in the Calcagni Memo as follows.

### *A. Attainment Emissions Inventory*

A state should develop a comprehensive and accurate inventory of actual emissions for an

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<sup>6</sup> See “Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas” from Sally L. Shaver, Office of Air Quality Planning and Standards (OAQPS), dated November 16, 1994; “Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas” from Joseph Paisie, OAQPS, dated October 6, 1995; and “Limited Maintenance Plan Option for Moderate PM10 Nonattainment Areas” from Lydia Wegman, OAQPS, dated August 9, 2001.

<sup>7</sup> The ozone design value for a monitoring site is the 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentrations. The design value for an ozone nonattainment area is the highest design value of any monitoring site in the area.

attainment year which identifies the level of emissions in the area which is sufficient to maintain the NAAQS. The inventory should be developed consistent with EPA’s most recent guidance.

For ozone, the inventory should be based on typical summer day’s emissions of oxides of nitrogen (NOx) and volatile organic compounds (VOC), the precursors to ozone formation.

Table 1 presents a summary of the 2014 inventories submitted in the maintenance plan.

Table 1: 2014 Typical Summer Day VOC and NOx Emissions (tons/day)<sup>8</sup>

Area	Source Category	VOC	NOx
Kent County	Nonroad	2.49	1.23
	Onroad	0.42	0.96
	Point Source	0.04	0.23
	Area Source	0.82	0.05
Queen Anne’s County	Nonroad	2.63	1.60
	Onroad	1.10	3.69
	Point Source	0.03	0.05
	Area Source	1.97	0.09
Total		9.50	7.90

The 2014 emissions inventory was prepared by MDE and uploaded into EPA’s Emissions Inventory System (EIS) for inclusion in EPA’s National Emission Inventory (NEI). The inventory addresses four anthropogenic emission source categories: Stationary (point) sources, stationary nonpoint (area) sources, nonroad mobile, and on-road mobile sources. Point sources are stationary sources that have the potential to emit (pte) more than 100 tons per year (tpy) of VOC, or more than 50 tpy of NOx, and which are required to obtain an operating permit. Data are collected for each source at a facility and reported to MDE. Stationary area sources have relatively low emissions individually, but due to the large number of sources, cumulative emissions could be significant. Examples include fuel combustion for household heating. Emissions are estimated by using emission factors and known variables such as population, or number of households. On-road mobile emissions are modelled by MDE using EPA’s Motor

<sup>8</sup> Data in Table 1 have been rounded. See Table 4.1-1 of MDE’s December 18, 2019 submittal for precise data.

Vehicle Emission Simulator (MOVES). MDE generates nonroad mobile source emissions data through the use of EPA's NONROAD2014a model, except for marine air and rail emissions which are estimated at the county level based on emission factors and activity levels. EPA reviewed the supporting documentation submitted by MDE<sup>9</sup> and proposes to conclude that the plan's inventory is acceptable for the purposes of a subsequent maintenance plan under CAA section 175A(b).

*B. Maintenance Demonstration*

In order to attain the 1997 ozone NAAQS, the three-year average of the fourth-highest daily average ozone concentrations (design value, DV) at each monitor within an area must not exceed 0.08 ppm. Based on the rounding convention described in 40 CFR part 50, appendix I, the standard is attained if the DV is 0.084 ppm or below. CAA section 175A requires a demonstration that the area will continue to maintain the NAAQS throughout the duration of the requisite maintenance period. Consistent with the prior guidance documents discussed previously in this document, EPA believes that if the most recent DV for the area is well below the NAAQS (e.g. below 85%, or in this case below 0.071 ppm), the section 175A demonstration requirement has been met, provided that Prevention of Significant Deterioration requirements, any control measures already in the SIP, and any Federal measures remain in place through the end of the second 10-year maintenance period (absent a showing consistent with section 110(l) that such measures are not necessary to assure maintenance). Table 2 shows that the last two DVs for the Kent and Queen Anne's County area continue to be below 85% of the 1997 ozone NAAQS.<sup>10</sup>

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<sup>9</sup> See Appendix B of MDE's March 12, 2020 technical correction.

<sup>10</sup> The 2016-2018 DV was published by EPA after the date of MDE's submittal. See [https://www.epa.gov/sites/production/files/2019-07/ozone\\_designvalues\\_20162018\\_final\\_06\\_28\\_19.xlsx](https://www.epa.gov/sites/production/files/2019-07/ozone_designvalues_20162018_final_06_28_19.xlsx)

Table 2: Recent Air Quality Values for Kent and Queen Anne’s Counties

Designated Area	Design Value Years	AQS Site ID	Design Value (DV)	DV < 0.071 ppm?
Kent and Queen Anne’s Counties	2015-2017	24-029-0002	0.070	Yes
	2016-2018	24-029-0002	0.069	Yes

Additionally, states can support the demonstration of continued maintenance by showing stable or improving air quality trends. Several kinds of analyses can be performed by states wishing to make such a showing. One approach is to take the most recent DV for the area and add the biggest increase that has been observed over the past several years. A sum that is still below the NAAQS would be considered a good indication of continued attainment.<sup>11</sup> Going back to the 2004-2006 DV years, the largest increase in DV was 0.008 ppm and occurred between the 2009-2011 (0.074 ppm) and the 2010-2012 (0.082 ppm) DV years.<sup>12</sup> Adding 0.008 ppm to the most recent DV of 0.069 ppm results in a sum that is still below the NAAQS (0.077 ppm). Therefore, EPA believes MDE has satisfactorily demonstrated that future violations of the NAAQS in this area are unlikely.

*C. Continued Air Quality Monitoring and Verification of Continued Attainment*

Once an area has been redesignated to attainment, the State remains obligated to maintain an air quality network in accordance with 40 CFR part 58, in order to verify the area’s attainment status. MDE monitors ambient ozone concentrations at the Millington, MD site (Air Quality System (AQS)) Site ID 24-029-0002). In the December 18, 2019 submittal, Maryland committed to maintaining an appropriate air quality monitoring network, in accordance with part 58. MDE committed to track and analyze any exceedances of the NAAQS during the maintenance period.

<sup>11</sup> See [https://www.epa.gov/sites/production/files/2018-11/documents/ozone\\_1997\\_naaqs\\_lmp\\_resource\\_document\\_nov\\_20\\_2018.pdf](https://www.epa.gov/sites/production/files/2018-11/documents/ozone_1997_naaqs_lmp_resource_document_nov_20_2018.pdf) at pgs. 6-7.

<sup>12</sup> See Tables 3.1-1 and 3.2-2 of MDE’s December 18, 2019 submittal found at <https://www.regulations.gov>, Docket ID No. EPA-R03-OAR-2020-0062.

*D. Contingency Plan*

CAA section 175A requires that each maintenance plan include provisions which require the state to maintain all control measures which were in place in the SIP prior to redesignation.

Additionally, each maintenance plan must contain contingency measures sufficient to assure that the state will promptly correct violations of the NAAQS after the area is redesignated as an attainment area.

MDE’s December 18, 2019 submittal outlines its foundation control program, which is intended to prevent violations of the NAAQS. MDE committed to continued implementation of the SIP measures for the control of NOx and VOC which were in place prior to redesignation. These include the Tier 3 Vehicle Emissions and Control Program, Vehicle Inspection and Maintenance Programs, and standards for various nonroad engines.<sup>13</sup>

MDE’s December 18, 2019 submittal also included a contingency plan, to be implemented in the event of NAAQS violations in the future. MDE listed two specific regulatory measures which will be evaluated and implemented through the promulgation of a rule in the event that the contingency plan is triggered. First, MDE will consider accelerating compliance with Code of Maryland Regulations (COMAR) section 26.11.13.07 (Control of VOC Emissions from Portable Fuel Containers) by creating a voluntary portable fuel container exchange program affecting residences and businesses. Second, MDE will consider lowering the applicability threshold for industrial, commercial, and institutional (ICI) boiler standards under COMAR 26.11.09.08, potentially impacting the sources listed in Table 3.

Table 3: Sources Potentially Impacted by Lower Applicability Thresholds

Queen Anne’s County	Kent County
Chesapeake College	Washington College

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<sup>13</sup> See MDE’s December 18, 2019 submittal at pgs. 10-12.

Kent Narrows Waste Water Treatment Plant	Kent and Queen Anne's Hospital
Queen Anne's County Emergency Center	Wenger's Feed Mill
Chesapeake Bay Bridge Maintenance and Administration Facility	Kent County Public Works and Roads Building
Centerville Town Hall and Sheriff's Department	Monsanto-Asgrow Seeds
Queenstown Town Offices and Courthouse	Maryland SHA District 2 Office
County Health Department	Maryland State Police
County Board of Education	National Guard Armory
County Courthouse	County Courthouse
County Department of Public Works	Chestertown Filtration Plant
Maryland SHA Garage	County Schools
Maryland State Police	
National Guard Armory	
County Schools	

MDE's contingency plan also includes the possibility of implementing other measures as necessary in order to return the area to attainment.

After the fourth ozone season exceedance of the 1997 NAAQS (0.08 ppm) at the Millington monitoring station, MDE will immediately recalculate the DV for that monitor. If the recalculated DV exceeds the NAAQS, the contingency plan will be "triggered," based on the following schedule: 1) Within two weeks of the trigger, MDE will notify Kent and Queen Anne's Counties and other stakeholders and schedule a meeting concerning the selection and implementation of contingency measures; 2) Within six weeks of the trigger, the meeting will be convened; 3) Within twelve weeks of the trigger, a public meeting will be held on the proposed contingency measures; 4) Within eighteen weeks of the trigger, all stakeholders will convene to consider public comments and finalize a list of planned contingency measures; 5) After the list of contingency measures is finalized, it will take approximately twelve months to complete any required rulemaking processes; 6) Within twenty four months of the trigger, agreed upon contingency measure will be implemented in the impacted counties.

*E. Transportation Conformity*

Transportation conformity is required by section 176(c) of the CAA. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS (CAA 176(c)(1)(B)). EPA's conformity rule at 40 CFR part 93 requires that transportation plans, programs and projects conform to SIPs and establish the criteria and procedures for determining whether or not they conform. The conformity rule generally requires a demonstration that emissions from the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP) are consistent with the motor vehicle emissions budget (MVEB) contained in the control strategy SIP revision or maintenance plan (40 CFR 93.101, 93.118, and 93.124). A MVEB is defined as “that portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions (40 CFR 93.101).”

Under the conformity rule, LMP areas may demonstrate conformity without a regional emission analysis (40 CFR 93.109(e)). However, because LMP areas are still maintenance areas, certain aspects of transportation conformity determinations still will be required for transportation plans, programs and projects. Specifically, for such determinations, RTPs, TIPs and transportation projects still will have to demonstrate that they are fiscally constrained (40 CFR 93.108), meet the criteria for consultation (40 CFR 93.105 and 40 CFR 93.112) and transportation control measure implementation in the conformity rule provisions (40 CFR 93.113). Additionally, conformity determinations for RTPs and TIPs must be determined no less frequently than every four years, and conformity of transportation plan and TIP amendments and transportation

projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104. In addition, for projects to be approved, they must come from a currently conforming RTP and TIP (40 CFR 93.114 and 93.115).

### **III. Proposed Action**

EPA's review of MDE's December 18, 2019 submittal and March 12, 2020 technical correction indicates they meet CAA section 175A and all applicable CAA requirements. EPA is proposing to approve the LMP for Kent and Queen Anne's Counties as a revision to the Maryland SIP.

EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

### **IV. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866.
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);

- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule, pertaining Maryland's limited maintenance plan for Kent and Queen Anne's Counties, does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen dioxide, Ozone, Volatile organic compounds.

Dated: April 27,2020

Cosmo Servidio,  
Regional Administrator,  
Region III.

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