ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2022-0167; FRL-10150-01-R4]

Air Plan Approval; Kentucky; Boyd and Christian County Limited Maintenance Plans for the 1997 8-Hour Ozone NAAQS

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve state implementation plan (SIP) revisions submitted by the Commonwealth of Kentucky, through the Energy and Environment Cabinet (Cabinet), on March 29, 2021. The SIP revisions include the 1997 8-hour ozone National Ambient Air Quality Standards (NAAQS or standards) Limited Maintenance Plans (LMPs) for the Kentucky portion (hereinafter referred to as the Boyd County Area) of the Huntington-Ashland, WV-KY 1997 8-hour ozone maintenance area (hereinafter referred to as the Huntington-Ashland, WV-KY Area) and the Kentucky portion (hereinafter referred to as the Christian County Area) of the Clarksville-Hopkinsville, TN-KY 1997 8-hour ozone maintenance area (hereinafter referred to as the Clarksville-Hopkinsville, TN-KY Area). EPA is proposing to approve Kentucky's LMPs for the Boyd County and Christian County Areas because they provide for the maintenance of the 1997 8-hour ozone NAAQS within the Huntington-Ashland, WV-KY Area and the Clarksville-Hopkinsville, TN-KY Area, respectively. The effect of these actions would be to make certain commitments related to maintenance of the 1997 8-hour ozone NAAQS in the Boyd County and Christian County Areas federally enforceable as part of the Kentucky SIP.

DATES: Comments must be received on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R04-OAR-2022-

0167 at www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. 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, 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.

FOR FURTHER INFORMATION CONTACT: Josue Ortiz Borrero, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. The telephone number is (404) 562-8085. Mr. Ortiz Borrero can also be reached via electronic mail at ortizborrero.josue@epa.gov.

SUPPLEMENTARY INFORMATION:

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I. Summary of EPA's Proposed Action

In accordance with the Clean Air Act (CAA or Act), EPA is proposing to approve the

Boyd County and Christian County Areas' LMPs for the 1997 8-hour ozone NAAQS, adopted by the Cabinet on March 29, 2021, and submitted by the Cabinet as revisions to the Kentucky SIP on March 29, 2021. On April 30, 2004, the Huntington-Ashland, WV-KY Area, which includes the Boyd County Area, was designated as nonattainment for the 1997 8-hour ozone standard. Subsequently, on September 29, 2006, the Cabinet submitted a redesignation request and the first 10-year maintenance plan for the Boyd County Area. In 2007, after having clean data and EPA's approval of a maintenance plan, the Boyd County Area was redesignated to attainment for the 1997 8-hour ozone NAAQS. *See* 72 FR 43172 (August 3, 2007).

Additionally, on April 30, 2004, the Clarksville-Hopkinsville, TN-KY Area, which includes the Christian County Area, was designated as nonattainment for the 1997 8-hour ozone standard. Subsequently, on May 20, 2005, the Cabinet submitted a redesignation request and the first 10-year maintenance plan for the Christian County Area. In 2006, after having clean data and EPA's approval of a maintenance plan, the Area was redesignated to attainment for the 1997 8-hour ozone NAAQS. *See* 71 FR 4047 (January 25, 2006).

The Boyd County and Christian County Areas' LMPs for the 1997 8-hour ozone NAAQS, submitted by the Cabinet on March 29, 2021, are designed to maintain the 1997 8-hour ozone NAAQS within the Boyd County and Christian County Areas through the end of the second 10-year portion of the maintenance period beyond redesignation. EPA is proposing to approve the plans because they meet all applicable requirements under CAA sections 110 and 175A. As a general matter, the Boyd County and Christian County Areas' LMPs rely on the same control measures and contingency provisions to maintain the 1997 8-hour ozone NAAQS during the second 10-year portion of the maintenance periods as the maintenance plans submitted by the Cabinet for the first 10-year periods.

II. Background

Ground-level ozone is formed when oxides of nitrogen (NO_X) and volatile organic compounds (VOC) react in the presence of sunlight. These two pollutants, referred to as ozone

precursors, are emitted by many types of pollution sources, including on- and off-road motor vehicles and engines, power plants and industrial facilities, and smaller area sources such as lawn and garden equipment and paints. Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and in adults with lung disease. Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma and other lung diseases.

Ozone exposure also has been associated with increased susceptibility to respiratory infections; increased medication use, doctor visits, and emergency department visits; and increased hospital admissions for individuals with lung disease. Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors, which increases their exposure.[1]

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. *See* 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. *See* 62 FR 38856 (July 18, 1997).[2] 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. EPA determined that the 8-hour ozone NAAQS would be more protective of human health, especially for children and adults who are active outdoors, and for individuals with a pre-existing respiratory disease, such as asthma.

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 15,

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[1] *See* "Fact Sheet, Proposal to Revise the National Ambient Air Quality Standards for Ozone," January 6, 2010, and 75 FR 2938 (January 19, 2010).

[2] In March 2008, EPA completed another review of the primary and secondary ozone NAAQS and tightened them further by lowering the level for both to 0.075 ppm. *See* 73 FR 16436 (March 27, 2008). Additionally, in October 2015, EPA completed another review of the primary and secondary ozone NAAQS and tightened them by lowering the level for both to 0.070 ppm. *See* 80 FR 65292 (October 26, 2015).

2004, EPA designated the Huntington-Ashland, WV-KY Area, which consists of Boyd County in Kentucky and Cabell County and Wayne County in West Virginia, and the Clarksville-Hopkinsville, TN-KY Area, which consists of Christian County in Kentucky and Montgomery County in Tennessee, as nonattainment for the 1997 8-hour ozone NAAQS. Those designations became effective on June 15, 2004. *See* 69 FR 23858 (April 30, 2004).

Similarly, on May 21, 2012, EPA designated areas as unclassifiable/attainment or nonattainment for the 2008 8-hour ozone NAAQS. EPA designated the Boyd County and Christian County Areas as unclassifiable/attainment for the 2008 8-hour ozone NAAQS. These designations became effective on July 20, 2012. *See* 77 FR 30088. On November 16, 2017, areas were designated for the 2015 8-hour ozone 2015 8-hour ozone NAAQS. The Boyd County and Christian County Areas were again designated attainment/unclassifiable for the 2015 8-hour ozone NAAQS, with an effective date of January 16, 2018, for both areas. *See* 82 FR 54232 (November 16, 2017).

A state may submit a request that EPA redesignate a nonattainment area that is attaining a NAAQS to attainment, and, if the area has met the criteria described in section 107(d)(3)(E) of the CAA, EPA may approve the redesignation request.[3] One of the criteria for redesignation is for the area to have an approved maintenance plan under CAA section 175A. The maintenance plan must demonstrate that the area will continue to maintain the NAAQS for the period extending ten years after redesignation, and it must contain such additional measures as necessary to ensure maintenance and such contingency provisions as necessary to assure that violations of the NAAQS will be promptly corrected. Eight years after the effective date of redesignation, the state must also submit a second maintenance plan to ensure ongoing maintenance of the NAAQS for an additional ten years pursuant to CAA section 175A(b) (i.e.,

[3] Section 107(d)(3)(E) of the CAA sets out the requirements for redesignating a nonattainment area to attainment. They include attainment of the NAAQS, full approval of the applicable SIP pursuant to CAA section 110(k), 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.

ensuring maintenance for 20 years after redesignation).

EPA has published long-standing guidance for states on developing maintenance plans. The Calcagni memo[4] provides that states may generally demonstrate maintenance by either performing air quality modeling to show that the future mix of sources and emission rates will not cause a violation of the NAAQS or by showing that projected 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 page 9. EPA clarified in three subsequent guidance memos that certain areas can meet the CAA section 175A requirement to provide for maintenance by showing that they are unlikely to violate the NAAQS in the future, using information such as the area design values[5] when the design values are well below the standard and have been historically stable.[6] EPA refers to a maintenance plan containing this streamlined demonstration as an LMP.

EPA has interpreted CAA section 175A as permitting the LMP option because section 175A of the Act does not define how areas may demonstrate maintenance, and in EPA's experience implementing the various NAAQS, areas that qualify for an LMP and have approved LMPs have rarely, if ever, experienced subsequent violations of the NAAQS. As noted in the LMP guidance memoranda, states seeking an LMP must still submit the other maintenance plan elements outlined in the Calcagni memo, including an attainment emissions inventory, provisions for the continued operation of the ambient air quality monitoring network, verification of continued attainment, and a contingency plan in the event of a future violation of the NAAQS. Moreover, a state seeking an LMP must still submit its section 175A maintenance plan as a

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[4] John Calcagni, Director, Air Quality Management Division, EPA Office of Air Quality Planning and Standards (OAQPS), "Procedures for Processing Requests to Redesignate Areas to Attainment," September 4, 1992 (Calcagni memo).

[5] 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 area is the highest design value of any monitoring site in the area.

[6] *See* "Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas," from Sally L. Shaver, OAQPS, November 16, 1994; "Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas," from Joseph Paisie, OAQPS, October 6, 1995; and "Limited Maintenance Plan Option for Moderate PM_{10} Nonattainment Areas," from Lydia Wegman, OAQPS, August 9, 2001. Copies of these guidance memoranda can be found in the docket for this proposed rulemaking.

revision to its SIP, with all attendant notice and comment procedures. While the LMP guidance memoranda were originally written with respect to certain NAAQS,[7] EPA has extended the LMP interpretation of section 175A to other NAAQS and pollutants not specifically covered by the previous guidance memos.[8]

In this case, EPA is proposing to approve Kentucky's LMPs because the Commonwealth has made a showing, consistent with EPA's prior LMP guidance, that ozone concentrations in the Huntington-Ashland, WV-KY and Clarksville-Hopkinsville, TN-KY Areas are well below the 1997 8-hour ozone NAAQS and have been historically stable and that the Commonwealth has met the other maintenance plan requirements. The Cabinet submitted the LMPs for the Boyd County and Christian County Areas to fulfill the CAA's second maintenance plan requirement. EPA's evaluation of the Boyd County and Christian County Areas' LMPs is presented in section IV of this document, below.

On May 20, 2005, and September 29, 2006, the Cabinet submitted requests to EPA to redesignate the Christian County and Boyd County Areas, respectively, to attainment for the 1997 8-hour ozone NAAQS. Those submittals included plans, for inclusion in the Kentucky SIP, to provide for maintenance of the 1997 8-hour ozone NAAQS in the Clarksville-Hopkinsville, TN-KY Area through 2016 and in the Huntington-Ashland, WV-TN Area through 2018. EPA approved the Boyd County and the Christian County Areas' Maintenance Plans and the Commonwealth's requests to redesignate these Areas to attainment for the 1997 8-hour ozone NAAQS, effective September 4, 2007, and February 24, 2006, respectively. *See* 72 FR 43172 (August 3, 2007) and 71 FR 4047 (January 25, 2006), respectively. Kentucky's March 29, 2021, submittal contains the second 10-year maintenance plans for the 20-year maintenance period of the 1997 8-hour ozone NAAQS to ensure continued maintenance for the Clarksville-

[7] The prior memos addressed: unclassifiable areas under the 1-hour ozone NAAQS, nonattainment areas for the PM_{10} (particulate matter with an aerodynamic diameter less than 10 microns) NAAQS, and nonattainment for the carbon monoxide (CO) NAAQS.

[8] *See, e.g.*, 79 FR 41900 (July 18, 2014) (approval of the second ten-year LMP for the Grant County 1971 SO_2 maintenance area).

Hopkinsville, TN-KY and Huntington-Ashland, WV-TN Areas.

Section 175A(b) of the CAA requires states to submit a revision to the first maintenance plan eight years after redesignation to provide for maintenance of the NAAQS for ten additional years following the end of the first 10-year period. However, EPA's final implementation rule for the 2008 8-hour ozone NAAQS revoked the 1997 8-hour ozone NAAQS and stated 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). *See* 80 FR 12264, 12315 (March 6, 2015).

In *South Coast Air Quality Management District v. EPA*, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated EPA's interpretation that, because of the revocation of the 1997 8-hour ozone NAAQS, second maintenance plans were not required for "orphan maintenance areas," i.e., areas that had been redesignated to attainment for the 1997 8-hour ozone NAAQS maintenance areas and were designated attainment for the 2008 ozone NAAQS. *South Coast*, 882 F.3d 1138 (D.C. Cir. 2018). Thus, states with these "orphan maintenance areas" under the 1997 8-hour ozone NAAQS must submit maintenance plans for the second maintenance period. Accordingly, on March 29, 2021, Kentucky submitted second maintenance plans for the Boyd County and Christian County Areas that show that the Areas are expected to remain in attainment of the 1997 8-hour ozone NAAQS through 2027 and 2026, respectively.

In recognition of the continuing record of air quality monitoring data showing ambient 8-hour ozone concentrations in the Huntington-Ashland, WV-KY and Clarksville-Hopkinsville, TN-KY Areas well below the 1997 8-hour ozone NAAQS, the Cabinet chose the LMP option for the development of second 1997 8-hour ozone NAAQS maintenance plans. On March 29, 2021, the Cabinet adopted the second 10-year 1997 8-hour ozone maintenance plans and also submitted the Boyd County and the Christian County Areas' LMPs to EPA as revisions to the

Kentucky SIP.

III. Kentucky's SIP Submittals

As mentioned above, on March 29, 2021, the Cabinet submitted the Boyd County and Christian County Areas' LMPs to EPA as revisions to the Kentucky SIP. The submittals include the LMPs, air quality data, emissions inventory information, and appendices. Appendices to the plans include comments and responses between EPA and the Cabinet; documentation of notice, hearing, and public participation prior to adoption of the plans by the Cabinet on March 29, 2021; and a Cabinet order, which notes that Kentucky's LMP submittals for the remainder of the 20-year maintenance period for the Boyd County and the Christian County Areas are in response to the D.C. Circuit's decision overturning aspects of EPA's implementation rule for the 2008 8-hour ozone NAAQS (*South Coast*, 882 F.3d 1138 (D.C. Cir. 2018)).

The Boyd County and Christian County Areas' LMPs do not include any additional emissions reduction measures but rely on the same emission reduction strategy as the first 10-year maintenance plans that provide for maintenance of the 1997 ozone NAAQS through 2018 and 2016, respectively. Prevention of significant deterioration (PSD) requirements and control measures contained in the SIP will continue to apply, and Federal measures (e.g., Federal motor vehicle control programs) will continue to be implemented in the Boyd County and Christian County Areas.

IV. EPA's Evaluation of Kentucky's SIP Submittals

EPA has reviewed the Boyd County and Christian County Areas' LMPs, which are designed to maintain the 1997 8-hour ozone NAAQS within these Areas through the end of the 20-year period beyond redesignation, as required under CAA section 175A(b). The following is a summary of EPA's interpretation of the section 175A requirements[9] and EPA's evaluation of how each requirement is met for the Boyd County and Christian County Areas.

A. Attainment Emissions Inventory

[9] *See* Calcagni memo.

For maintenance plans, a state should develop a comprehensive, accurate inventory of actual emissions for an attainment year to identify the level of emissions which is sufficient to maintain the NAAQS. A state should develop this inventory consistent with EPA's most recent guidance on emissions inventory development. For ozone, the inventory should be based on typical summer day emissions of VOC and NO_X, as these pollutants are precursors to ozone formation.

1. Attainment Emissions Inventory - Boyd County Area

The Boyd County Area LMP includes an ozone attainment inventory for Boyd County that reflects typical summer day emissions in 2014. Table 1 presents a summary of the inventory for 2014 contained in the LMP.[10]

TABLE 1 — 2014 Typical Summer Day[11] VOC and NO_X Emissions for the Boyd County Area (tons/day)

Source Category	VOC Emissions	NO_X Emissions
Nonpoint	13.08	1.29
Nonroad	0.24	0.29
Onroad	1.43	2.81
Point	2.32	7.61
Total	**17.07**	**12.00**

The LMP guidance indicates that an attainment emissions inventory should be developed in order to identify emission levels in the area and provide the area with a basis to maintain the NAAQS. The inventory should consist of the ozone precursors (NO_X and VOC) and their emissions from a typical summer day measured in tons per day (tpd). The emissions data are

[10] In response to a comment from EPA regarding discrepancies between the emissions data in Kentucky's prehearing SIP submittal and the emissions data in version 2 of the 2014 National Emissions Inventory (NEI), Kentucky explained in its March 29, 2021, submittal that it had initially used the NEI 2014 version 1 data but agreed that updating to 2014 version 2 data would be appropriate. However, the final submittal still contains a discrepancy in the onroad VOC emissions data. Therefore, in Table 1 of this document, EPA has presented the value that was calculated using the 2014 NEI version 2 emissions data.

[11] The following formula was used to determine the typical summer day emissions for each sector: *(Annual emissions) x (25 percent annual throughput June-Aug)/92 = typical summer day emissions*.
This formula represents the tons per summer day by taking the annual emissions of NO_X and VOC from each source sector, multiplying it by 0.25 (which represents June, July, and August, the summer quarter of the calendar year), and then dividing it by 92 (which accounts for each summer day). Data from the 2014v2 NEI were used for the annual emissions part of the equation.

based on the 2014v2 National Emissions Inventory (NEI) platform for point sources, nonpoint sources, onroad, and nonroad mobile sources. For Boyd County, point sources make up the majority of contributions of NO_X, at 7.61 tpd. Nonpoint sources make up the majority of VOC contributions at 13.08 tpd. Based on our review of the methods, models, and assumptions used by Kentucky to develop the VOC and NO_X estimates, EPA proposes to find that the Boyd County Area's LMP includes a comprehensive, reasonably accurate inventory of actual ozone precursor emissions in attainment year 2014 and proposes to conclude that the plan's inventories are acceptable for the purposes of a subsequent maintenance plan under CAA section 175A(b).

2. Attainment Emissions Inventory - Christian County Area

The Christian County Area LMP includes an ozone attainment inventory for Christian County that reflects typical summer day emissions in 2014. Table 2 presents a summary of the inventory for 2014 contained in the LMP.

TABLE 2 — 2014 Typical Summer Day[12] VOC and NO_X Emissions for the Christian County Area (tons/day)

Source Category	VOC Emissions	NO_X Emissions
Nonpoint	27.04	2.44
Nonroad	0.38	1.08
Onroad	1.99	5.75
Point	1.07	0.32
Total	**30.48**	**9.59**

As with Boyd County, the emissions data are based on the 2014v2 NEI platform for point sources, nonpoint sources, onroad, and nonroad mobile sources. For Christian County, onroad mobile sources make up the majority of contributions of NO_X, at 5.75 tpd. Nonpoint sources make up the majority of contributions of VOC, at 27.04 tpd. Based on our review of the methods, models, and assumptions used by Kentucky to develop the VOC and NOx estimates, EPA proposes to find that the Christian County Area's LMP includes a comprehensive, reasonably accurate inventory of actual ozone precursor emissions in attainment year 2014 and

[12] *See* footnote 11.

proposes to conclude that the plan's inventories are acceptable for the purposes of a subsequent maintenance plan under CAA section 175A(b).

B. Maintenance Demonstration

1. Boyd County Area - Maintenance Demonstration for Huntington-Ashland, WV-KY Area

The maintenance demonstration requirement is considered to be satisfied in an LMP if the state can provide sufficient weight of evidence indicating that air quality in the area is well below the level of the NAAQS, that past air quality trends have been shown to be stable, and that the probability of the area experiencing a violation over the second 10-year maintenance period is low.[13] These criteria are evaluated below with regard to the Boyd County Area.

a. Evaluation of ozone concentrations in Huntington-Ashland, WV-KY Area

To attain the 1997 8-hour ozone NAAQS, the three-year average of the fourth-highest daily maximum 8-hour average ozone concentrations (design value) 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 1997 8-hour ozone NAAQS is attained if the design value is 0.084 ppm or below.

There are currently two ozone monitors in the Huntington-Ashland, WV-KY Maintenance Area, one in Boyd County, Kentucky, and one in Cabell County, West Virginia (which was relocated to a new location in 2019). Based on quality assured and certified monitoring data for 2019–2021, the current design value for the Huntington-Ashland, WV-KY is 0.059 ppm, or 70 percent of the level of the 1997 8-hour ozone NAAQS. Consistent with prior guidance, EPA believes that if the most recent air quality design value for the area is at a level that is well below the NAAQS (e.g., below 85 percent of the NAAQS, 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. Such a demonstration assumes continued applicability of prevention of significant deterioration

[13] See footnote 6.

requirements and any control measures already in the SIP and that Federal measures will remain in place through the end of the second 10-year maintenance period, absent a showing, consistent with CAA section 110(l), that such measures are not necessary to assure maintenance.

Table 3 presents the design values (in ppm) for each monitor in the Huntington-Ashland, WV-KY Maintenance Area over the 2006–2021 period. As shown, the AQS monitors in the area – Ashland Primary-(FIVCO) Monitor (AQS ID 21-019-0017) and Huntington Monitors (AQS ID 54-011-0006 and AQS 54-011-0007)[14] – have been well below the level of the 1997 8-hour ozone NAAQS over the entire first 10-year maintenance period since the Area was redesignated to attainment, and the most recent design value is below the level of 85 percent of the NAAQS, consistent with prior LMP guidance.

Table 3 — 1997 8-Hour Ozone NAAQS Design Values[15] (ppm) for monitors in Huntington Ashland, WV-KY Area for the 2006–2021 Time Period

County	AQS Site ID	2006–2008 DV	2007–2009 DV	2008–2010 DV	2009–2011 DV	2010–2012 DV	2011–2013 DV	2012–2014 DV	2013–2015 DV	2014–2016 DV	2015–2016 DV	2016–2018 DV	2017–2019 DV	2018–2020 DV	2019–2021 DV
Boyd, KY	21-019-0017	0.074	0.070	0.070	0.069	0.072	0.069	0.068	0.066	0.066	0.065	0.064	0.062	0.061	0.059
Cabell, WV	54-011-0006	0.080	0.073	0.066	0.067	0.072	0.069	0.065	0.062	0.064	0.064	0.064	*	*	
Cabell, WV	54-011-0007												*	*	0.059

* The Cabell County, West Virginia, monitor (AQS Site ID 54-011-0006) was relocated to a new site (AQS ID 54-011-0007) before the ozone monitoring season in 2019. As a result, neither site collected a complete three-year design value during 2017–2019 and 2018–2020.

Therefore, the Boyd County Area is eligible for the LMP option, and EPA proposes to find that the long record of monitored ozone concentrations that attain the NAAQS, together

[14] The Huntington, WV monitor in Cabell County was relocated, as explained in the note to Table 3 of this document.

[15] *See* EPA Air Quality Design Values at https://www.epa.gov/air-trends/air-quality-design-values.

with the continuation of existing VOC and NO_X emissions control programs, adequately provide for the maintenance of the 1997 8-hour ozone NAAQS in the Area through the second 10-year maintenance period and beyond.

Additional supporting information that the Area is expected to continue to maintain the NAAQS can be found in projections of future year design values that EPA recently completed to assist states with development of interstate transport SIPs for the 2015 ozone NAAQS.[16] Those projections, made for the year 2023, show that the highest design value in the Area is projected to be 0.058 ppm. EPA is not proposing to make any finding in this rulemaking regarding interstate transport obligations for any state.

b. Stability of Ozone Levels in Huntington-Ashland, WV-KY Area

As discussed above, the Huntington-Ashland, WV-KY Area has maintained air quality well below the 1997 8-hour ozone NAAQS over the past fourteen years. Additionally, the design value data shown within Table 3 of this document, illustrates that ozone levels have been relatively stable over this timeframe, with an overall downward trend. For example, the data within Table 3 of this document indicates that the largest year-over-year change in design value at any one monitor during fourteen years was seven parts per billion (ppb), which occurred between the 2006–2008 and between the 2007-2009 and 2008-2010 design values. Furthermore, the overall ozone concentrations for the Area decreased by 15 ppb between the 2007–2009 and 2019–2021 design values at the Ashland Primary-Monitor (AQS ID 21-019-0017). This downward trend in ozone levels, coupled with the relatively small, year-over-year variation in ozone design values, makes it reasonable to conclude that Huntington-Ashland, WV-KY Area will not exceed the 1997 8-hour ozone NAAQS during the second 10-year maintenance period.

2. Christian County Area - Maintenance Demonstration for Clarksville-Hopkinsville, TN-KY Area

[16] See the spreadsheet titled "Ozone Monitoring Site Design Values for 2008 through 2017 and for 2023" at https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.

As stated above, the maintenance demonstration requirement is considered to be satisfied in an LMP if the state can provide sufficient weight of evidence indicating that air quality in the area is well below the level of the NAAQS, that past air quality trends have been shown to be stable, and that the probability of the area experiencing a violation over the second 10-year maintenance period is low. These criteria are evaluated below with regard to the Christian County Area.

a. Evaluation of ozone air quality levels in Clarksville-Hopkinsville, TN-KY Area

To attain the 1997 8-hour ozone NAAQS, the three-year average of the fourth-highest daily maximum 8-hour average ozone concentrations (design value) 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 NAAQS is attained if the design value is 0.084 ppm or below. There is currently one ozone monitor in the Clarksville-Hopkinsville, TN-KY Maintenance Area, in Christian County, Kentucky.

Based on quality assured and certified monitoring data for 2019–2021, the current design value for the Clarksville-Hopkinsville, TN-KY Area is 0.058 ppm, or 69 percent of the level of the 1997 8-hour ozone NAAQS. Consistent with prior guidance, EPA believes that if the most recent air quality design value for the area is at a level that is well below the NAAQS (e.g., below 85 percent of the NAAQS, 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. Such a demonstration assumes continued applicability of prevention of significant deterioration requirements and any control measures already in the SIP and that Federal measures will 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 4 presents the design values (in ppm) for the Christian County, Kentucky, monitor for the three-year periods 2006–2008 through 2019–2021. As shown in Table 4, the Clarksville-

Hopkinsville, TN-KY Area has been well below the level of the 1997 8-hour ozone NAAQS over the entire first 10-year maintenance period since the Area was redesignated to attainment, and the most current design value is below the level of 85 percent of the NAAQS, consistent with prior LMP guidance.

Table 4 — 1997 8-Hour Ozone NAAQS Design Values (ppm) at the Monitoring Site in the Clarksville-Hopkinsville, TN-KY Area for the 2006–2021 Time Period

County	AQS Site ID	2006-2008 DV	2007-2009 DV	2008-2010 DV	2009-2011 DV	2010-2012 DV	2011-2013 DV	2012-2014 DV	2013-2015 DV	2014-2016 DV	2015-2016 DV	2016-2018 DV	2017-2019 DV	2018-2020 DV	2019-2021 DV
Christian	21-047-0006	0.078	0.074	0.069	0.070	0.073	0.069	0.067	0.063	0.062	0.061	0.060	0.058	0.058	0.058

Therefore, the Christian County Area is eligible for the LMP option, and EPA proposes to find that the long record of monitored ozone concentrations that attain the NAAQS, together with the continuation of existing VOC and NO_X emissions control programs, adequately provide for the maintenance of the 1997 8-hour ozone NAAQS in the Clarksville-Hopkinsville, TN-KY Area through the second 10-year maintenance period and beyond.

Additional supporting information that the Clarksville-Hopkinsville, TN-KY Area is expected to continue to maintain the NAAQS can be found in projections of future year design values that EPA recently completed to assist states with development of interstate transport SIPs for the 2015 ozone NAAQS.[17] Those projections, made for the year 2023, show that the highest design value in the Area is expected to be 0.056 ppm.

b. Stability of Ozone Levels in Clarksville-Hopkinsville Area

As discussed above, the Clarksville-Hopkinsville, TN-KY Area has maintained air quality well below the 1997 8-hour ozone NAAQS over the past fourteen years. Additionally, the design value data shown within Table 4 of this document, illustrates that ozone levels have been relatively stable over this timeframe, with an overall downward trend. For example, the

[17] See the spreadsheet titled "Ozone Monitoring Site Design Values for 2008 through 2017 and for 2023" at https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.

data within Table 4 of this document, indicates that the largest year-over-year change in design value at any one monitor during these fourteen years was five ppb which occurred between the 2007–2009 design value and the 2008–2010 design value, and it represented only a six percent change. Furthermore, the overall ozone concentrations for the Clarksville-Hopkinsville, TN-KY Area decreased by 20 ppb between the 2007–2009 and 2019–2021 design values at the Hopkinsville, Kentucky, monitor (AQS ID 21-047-0006). This downward trend in ozone levels, coupled with the relatively small, year-over-year variation in ozone design values, makes it reasonable to conclude that the Clarksville-Hopkinsville, TN-KY Area will not exceed the 1997 8-hour ozone NAAQS during the second 10-year maintenance period.

C. Monitoring Network and Verification of Continued Attainment

EPA annually reviews the ozone monitoring network that the Cabinet operates and maintains in accordance with 40 CFR part 58. This network is described in the ambient air monitoring network plan that is developed by the Cabinet and submitted to EPA annually, following a public notification and comment process. EPA has reviewed and approved Kentucky's 2021 Ambient Air Monitoring Network Plan (2021 Annual Network Plan).[18]

To verify the attainment status of the area over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate EPA-approved monitoring network in accordance with 40 CFR part 58. As noted above, the Cabinet's monitoring networks in the Boyd County and Christian County Areas have been approved by the EPA in accordance with 40 CFR part 58, and the Cabinet has committed to continue to maintain a network in accordance with the EPA requirements. For further details on monitoring, the reader is referred to the 2021 Kentucky Annual Network Plan[19] as well as EPA's approval letter for the 2021 Annual Network Plan, which can be found in the docket for this proposed action.

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[18] *See* Letter from Caroline Y. Freeman, Director, Air and Radiation Division, US EPA Region 4, to Melissa K. Duff, Director, Kentucky Division for Air Quality (October 27, 2021) (approving the 2021 Kentucky Ambient Air Monitoring Network Plan) (included in docket for this proposed rulemaking).

[19] 2021 Kentucky Annual Ambient Air Monitoring Network Plan. Commonwealth of Kentucky Energy and Environment Cabinet, Department for Environmental Protection, Division for Air Quality (June 29, 2021). Available online at: https://eec.ky.gov/Environmental-Protection/Air/Air-Monitoring/Pages/default.aspx.

EPA proposes to find that the Cabinet's monitoring network is adequate to verify continued attainment of the 1997 ozone NAAQS in the Huntington-Ashland, WV-KY and Clarksville-Hopkinsville, TN-KY Areas.

D. Contingency Plan

Section 175A(d) of the Act requires that a maintenance plan include contingency provisions. The purpose of such contingency provisions is to prevent future violations of the NAAQS or to promptly remedy any NAAQS violations that might occur during the maintenance period. The state should identify specific triggers which will be used to determine when the contingency measures need to be implemented.

For the Boyd County and Christian County Areas, if a monitored violation of the 8-hour ozone design value occurs in any portion the Huntington-Ashland, WV-KY Area or Clarksville-Hopkinsville, TN-KY Area, respectively, or if periodic emission inventory updates reveal excessive or unanticipated growth in ozone precursor emissions, the contingency plans in Kentucky's LMPs require the Commonwealth to evaluate existing control measures to see if any further emission reduction measures should be implemented. In the event of a monitored violation of the 1997 ozone NAAQS in the Huntington-Ashland, WV-KY Area or the Clarksville-Hopkinsville, TN-KY Area, Kentucky commits to adopt, within a period of nine months, one or more of several potential contingency measures listed in the plan to re-attain the standard. After the triggering monitored violation, all of the selected regulatory programs will be implemented within 18 months.

The plans also provide that the Cabinet will complete any necessary analyses to submit to EPA and that contingency measures will be adopted and implemented as quickly as possible but no later than eighteen months after the triggering event. Should the affected area return to attainment prior to the implementation of the contingency measure(s), those measures may not be implemented. In addition, the plans provide that Cabinet reserves the right to implement other contingency measures if new control programs should be developed and deemed more

advantageous for the area. Prior to the implementation of any contingency measure(s) not listed, the Cabinet will solicit input from all interested and affected parties in the area. No contingency measure will be implemented without notification to EPA and approval granted by EPA.

EPA proposes to find that the contingency provisions in Kentucky's second maintenance plans for both the Boyd County and Christian County Areas for the 1997 8-hour Ozone NAAQS meet the requirements of the CAA section 175A(d).

E. Conclusion

EPA proposes to find that the Boyd County and Christian County Areas' LMPs for the 1997 8-hour ozone NAAQS include an approvable update of the various elements (including attainment inventory, assurance of adequate monitoring and verification of continued attainment, and contingency provisions) of the initial EPA-approved Maintenance Plan for the 1997 8-hour ozone NAAQS. EPA also proposes to find that the Boyd County and Christian County Areas qualify for the LMP option and adequately demonstrate maintenance of the 1997 8-hour ozone NAAQS through the documentation of monitoring data showing maximum 1997 8-hour ozone levels well below the NAAQS and historically stable design values.

EPA also believes the Boyd County and Christian County Areas' LMPs, which retain all existing control measures in the SIP, are sufficient to provide for maintenance of the 1997 8-hour ozone NAAQS in the Huntington-Ashland, WV-KY and Clarksville-Hopkinsville, TN-KY Areas, respectively, over the second maintenance period (i.e., through 2027 and 2026, respectively) and thereby satisfy the requirements for such a plan under CAA section 175A(b). EPA is therefore proposing to approve Kentucky's March 29, 2021, submission of the Boyd County and Christian County Areas' LMPs as revisions to the Kentucky SIP.

V. 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. *See* CAA 176(c)(1)(A) and (B).

EPA's transportation conformity rule at 40 CFR part 93, subpart A, requires that transportation plans, programs, and projects conform to SIPs and establishes the criteria and procedures for determining whether 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. *See* 40 CFR 93.101, 93.118, and 93.124. A MVEB is defined as "the 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." *See* 40 CFR 93.101.

Under the conformity rule, LMP areas may demonstrate conformity without a regional emissions analysis. *See* 40 CFR 93.109(e). EPA made findings that the MVEBs in the first 10-years of the 1997 8-hour zone maintenance plan for the Boyd County and Christian County Areas were adequate for transportation conformity purposes. In a *Federal Register* notice published on August 3, 2007, EPA notified the public of the adequacy finding for the Boyd County Area through final rulemaking; the adequacy determination for the Boyd County Area became effective on September 4, 2007. *See* 72 FR 43172. In a *Federal Register* notice published on January 25, 2006, EPA notified the public of the adequacy finding for the Christian County Area through a final rule; the adequacy determination for the Christian County Area became effective on February 24, 2006. *See* 71 FR 4047.

After approval of or an adequacy finding for each of these LMPs, there is no requirement to meet the budget test pursuant to the transportation conformity rule for the respective maintenance area. All actions that would require a transportation conformity determination for the Boyd County and Christian County Areas under EPA's transportation conformity rule provisions are considered to have already satisfied the regional emissions analysis and "budget

test" requirements in 40 CFR 93.118 as a result of EPA's adequacy finding for the LMP. *See* 69 FR 40004 (July 1, 2004).

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) and meet the criteria for consultation (40 CFR 93.105) and Transportation Control Measure implementation in the conformity rule provisions (40 CFR 93.113) as well as meet the hot-spot requirements for projects (40 CFR 93.116).[20] Additionally, conformity determinations for RTPs and TIPs must be determined no less frequently than every four years, and conformity of plan and TIP amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104. In addition, in order for projects to be approved they must come from a currently conforming RTP and TIP. *See* 40 CFR 93.114 and 40 CFR 93.115.

VI. Proposed Actions

Under sections 110(k) and 175A of the CAA and for the reasons set forth above, EPA is proposing to approve the Boyd County and Christian County Areas' LMPs for the 1997 8-hour ozone NAAQS, submitted by the Cabinet on March 29, 2021, as revisions to the Kentucky SIP. EPA is proposing to approve the Boyd County and Christian County Areas' LMPs because they include an acceptable update of the various elements of the 1997 8-hour ozone NAAQS Maintenance Plan approved by EPA for the first 10-year period (including emissions inventory, assurance of adequate monitoring and verification of continued attainment, and contingency provisions), and essentially carry forward all of the control measures and contingency provisions relied upon in the earlier plans.

EPA also finds that the Boyd County and Christian County Areas qualify for the LMP

[20] A conformity determination that meets other applicable criteria in Table 1 of paragraph (b) of this section (93.109(e)) is still required, including the hot-spot requirements for projects in CO, PM_{10}, and fine particulate matter ($PM_{2.5}$) areas.

option and that, therefore, the Boyd County and Christian County Areas' LMPs adequately demonstrate maintenance of the 1997 8-hour ozone NAAQS through documentation of monitoring data showing maximum 1997 8-hour ozone levels well below the NAAQS and continuation of existing control measures. EPA believes that the Boyd County and Christian County Areas' 1997 8-Hour ozone LMPs are sufficient to provide for maintenance of the 1997 8-hour ozone NAAQS in the Huntington-Ashland, WV-KY and Clarksville-Hopkinsville, TN-KY Areas, respectively, over the second 10-year maintenance period, through 2027 and 2026, respectively, and thereby satisfy the requirements for such a plan under CAA section 175A(b).

VII. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 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 they meet the criteria of the CAA. These actions merely propose to approve state law as meeting Federal requirements and do not impose additional requirements beyond those imposed by state law. For that reason, these proposed actions:

- Are not significant regulatory actions 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);
- Do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Are 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*.);
- Do not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Do not have Federalism implications as specified in Executive Order 13132 (64 FR

43255, August 10, 1999);

- Are not economically significant regulatory actions based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Are not significant regulatory actions subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Are 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
- Do 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).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it 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, Intergovernmental Relations, Nitrogen Oxides, Ozone, Reporting and Recordkeeping Requirements, Volatile Organic Compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: August 18, 2022.

Daniel Blackman,
Regional Administrator,
Region 4.

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