



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2018-0759; FRL-9993-72-Region 4]

Air Plan Approval; Kentucky;

Interstate Transport (Prongs 1 and 2) for the 2010 1-Hour NO₂ Standard

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 Commonwealth of Kentucky, through the Kentucky Energy and Environment Cabinet by a letter dated November 16, 2018, for the purpose of addressing the Clean Air Act (CAA or Act) “good neighbor” interstate transport (prongs 1 and 2) infrastructure SIP requirements for the 2010 1-hour Nitrogen Dioxide (NO₂) National Ambient Air Quality Standard (NAAQS). The CAA requires that each state adopt and submit a SIP for the implementation, maintenance, and enforcement of each NAAQS promulgated by EPA, commonly referred to as an “infrastructure SIP.” Specifically, EPA is proposing to approve Kentucky’s November 16, 2018, SIP revision addressing prongs 1 and 2 to ensure that air emissions in Kentucky do not significantly contribute to nonattainment or interfere with maintenance of the 2010 1-hour NO₂ NAAQS in any other state.

DATES: 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-R04-OAR-2018-0759 at <http://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 <http://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Evan Adams of the 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. Mr. Adams can be reached by phone at (404) 562-9009 or via electronic mail at adams.evan@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On January 22, 2010, EPA established a new 1-hour primary NAAQS for NO₂ at a level of 100 parts per billion (ppb), based on a 3-year average of the 98th percentile of the yearly

distribution of 1-hour daily maximum concentrations.¹ See 75 FR 6474 (February 9, 2010). This NAAQS is designed to protect against exposure to the entire group of nitrogen oxides (NO_x). NO₂ is the component of greatest concern and is used as the indicator for the larger group of NO_x. Emissions that lead to the formation of NO₂ generally also lead to the formation of other NO_x. Therefore, control measures that reduce NO₂ can generally be expected to reduce population exposures to all gaseous NO_x which results in a reduction in the formation of ozone and fine particles both of which pose significant public health threats. For comprehensive information on the 2010 1-hour NO₂ NAAQS, please refer to the February 9, 2010 Federal Register document. See 75 FR 6474.

Whenever EPA promulgates a new or revised NAAQS, CAA section 110(a)(1) requires states to make SIP submissions to provide for the implementation, maintenance, and enforcement of the NAAQS.² This particular type of SIP submission is commonly referred to as an “infrastructure SIP.” These submissions must meet the various requirements of CAA section 110(a)(2), as applicable. Due to ambiguity in some of the language of CAA section 110(a)(2), EPA believes that it is appropriate to interpret these provisions in the specific context of acting on infrastructure SIP submissions. EPA has previously provided comprehensive guidance on the application of these provisions through a guidance document for infrastructure SIP submissions and through regional actions on infrastructure submissions.³ Unless otherwise noted below, EPA

¹ Subsequently, after careful consideration of the scientific evidence and information available, on April 18, 2018, EPA published a final action to retain the current NO₂ standard at the 2010 level of 100 ppb. This action was taken after review of the full body of available scientific evidence and information, giving particular weight to the assessment of the evidence in the 2016 NO_x Integrated Science Assessment; analyses and considerations in the Policy Assessment; the advice and recommendations of the Clean Air Scientific Advisory Committee; and public comments. See 83 FR 17226 (April 18, 2018).

² States were required to submit infrastructure SIPs for the 2010 1-hour NO₂ NAAQS to EPA no later than January 22, 2013.

³ EPA explains and elaborates on these ambiguities and its approach to address them in its September 13, 2013 Infrastructure SIP Guidance, available at

is following that existing approach in acting on this submission. In addition, in the context of acting on such infrastructure submissions, EPA evaluates the submitting state's SIP for compliance with statutory and regulatory requirements, not for the state's implementation of its SIP.⁴ EPA has other authority to address any issues concerning a state's implementation of the regulations that comprise its SIP.

Section 110(a)(2)(D) has two components: 110(a)(2)(D)(i) and 110(a)(2)(D)(ii).

Section 110(a)(2)(D)(i) includes four distinct components, commonly referred to as "prongs," that must be addressed in infrastructure SIPs. The first two prongs, which are codified in section 110(a)(2)(D)(i)(I), are provisions that prohibit any source or other type of emissions activity in one state from contributing significantly to nonattainment of the NAAQS in another state (prong 1) and from interfering with maintenance of the NAAQS in another state (prong 2). EPA sometimes refers to the prong 1 and prong 2 conjointly as the "good neighbor" provision of the CAA. The third and fourth prongs, which are codified in section 110(a)(2)(D)(i)(II), are provisions that prohibit emissions activity in one state from interfering with measures required to prevent significant deterioration of air quality in another state (prong 3) and from interfering with measures to protect visibility in another state (prong 4). Section 110(a)(2)(D)(ii) requires SIPs to include provisions ensuring compliance with sections 115 and 126 of the Act, relating to interstate and international pollution abatement.

EPA's most recent infrastructure SIP guidance, the September 13, 2013, "Guidance on Infrastructure State Implementation Plan (SIP) Elements under Clean Air Act Sections 110(a)(1)

https://www3.epa.gov/airquality/urbanair/sipstatus/docs/Guidance_on_Infrastructure_SIP_Elements_Multipollutant_FINAL_Sept_2013.pdf, as well as in numerous agency actions, including EPA's prior action on Kentucky's infrastructure SIP to address other 110(a)(2) elements for the PM_{2.5} NAAQS entitled "Air Plan Approval; Kentucky; Infrastructure Requirements for the 2012 PM_{2.5} National Ambient Air Quality Standard;" in the section "What is EPA's approach to the review of infrastructure SIP submissions?" See 82 FR 21751 at 21752-21755 (May 10, 2017).

⁴ See *Montana Environmental Information Center v. Thomas*, 902 F.3d 971 (9th Cir. 2018).

and 110(a)(2),” did not explicitly include criteria for how the Agency would evaluate infrastructure SIP submissions intended to address section 110(a)(2)(D)(i)(I).⁵ With respect to certain pollutants, such as ozone and particulate matter (PM), EPA has addressed interstate transport in eastern states in the context of regional rulemaking actions that quantify state emission reduction obligations.⁶ For NO₂, EPA has considered available information such as current air quality, emissions data and trends, and regulatory provisions that control source emissions to determine whether emissions from one state interfere with the attainment or maintenance of the NAAQS in another state. EPA’s review and proposed action on Kentucky’s CAA section 110(a)(2)(D)(i)(I) interstate transport SIP revisions for the 2010 NO₂ NAAQS is informed by these considerations.

Through this proposed action, EPA is proposing to approve Kentucky’s November 16, 2018, SIP revision addressing prong 1 and prong 2 requirements for the 2010 1-hour NO₂ NAAQS. The Commonwealth addressed CAA section 110(a)(2)(D)(i)(I) by providing information supporting its conclusion that emissions from Kentucky do not significantly contribute to nonattainment or interfere with maintenance of the 2010 1-hour NO₂ NAAQS in downwind states. All other applicable infrastructure SIP requirements for Kentucky for the 2010

⁵ At the time the September 13, 2013, guidance was issued, EPA was litigating challenges raised with respect to its Cross-State Air Pollution Rule (CSAPR), 76 FR 48208 (August 8, 2011), designed to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements with respect to the 1997 ozone and the 1997 and 2006 PM_{2.5} NAAQS. CSAPR was vacated and remanded by the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) in 2012 pursuant to *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7. EPA subsequently sought review of the D.C. Circuit’s decision by the Supreme Court, which was granted in June 2013. As EPA was in the process of litigating the interpretation of section 110(a)(2)(D)(i)(I) at the time the infrastructure SIP guidance was issued, EPA did not issue guidance specific to that provision. The Supreme Court subsequently vacated the D.C. Circuit’s decision and remanded the case to that court for further review. 134 S. Ct. 1584 (2014). On July 28, 2015, the D.C. Circuit issued a decision upholding CSAPR, but remanding certain elements for reconsideration. 795 F.3d 118.

⁶ Nitrogen Oxides (NO_x) SIP Call, 63 FR 57356 (October 27, 1998); Clean Air Interstate Rule (CAIR), 70 FR 25162 (May 12, 2005); CSAPR, 76 FR 48208 (August 8, 2011).

1-hour NO₂ NAAQS have been addressed in separate rulemakings. *See* 80 FR 14019 (March 18, 2015), 81 FR 83152 (November 21, 2016), and 84 FR 11652 (March 28, 2019).

II. What is EPA’s Analysis of How Kentucky Addressed Prongs 1 and 2?

Kentucky concluded that the SIP adequately addresses prongs 1 and 2 with respect to the 2010 1-hour NO₂ NAAQS in its November 16, 2018, SIP revision. Kentucky provides the following reasons for its determination: (1) monitored 1-hour NO₂ design values in Kentucky and neighboring states (Illinois, Indiana, Missouri, Ohio, Tennessee, and Virginia) are below the 2010 standard; (2) total emissions of NO_x in Kentucky have trended downward from 1987 to 2017; and (3) the SIP contains state regulations that directly or indirectly control NO_x emissions. EPA preliminarily agrees with the Commonwealth’s conclusion based on the rationale discussed below.

First, EPA notes that there are no designated nonattainment areas for the 2010 1-hour NO₂ NAAQS in Kentucky or the neighboring states. On February 17, 2012 (77 FR 9532), EPA designated the entire country as “unclassifiable/attainment” for the 2010 1-hour NO₂ NAAQS, stating that “available information does not indicate that the air quality in these areas exceeds the 2010 [1-hour] NO₂ NAAQS.”

Second, the 2015-2017 NO₂ design values in Kentucky and neighboring states are well below the 2010 1-hour NO₂ NAAQS standard of 100 ppb.⁷ The valid, monitored 2015-2017 valid design values for Kentucky were 27, 30, 31, 34, 40, and 49 ppb. The highest monitored 2015-2017 valid design values for the neighboring states of Illinois, Indiana, Missouri, Ohio,

⁷ See Figure 1 in Kentucky’s submittal, which is based on the NO₂ design value data extracted from the EPA website at <https://www.epa.gov/air-trends/air-quality-design-values#report>.

Tennessee, and Virginia are 56, 44, 49, 55, 53, and 45 ppb, respectively.⁸ The design values in Kentucky, and neighboring states, during this time period were 44 to 73 percent below the NAAQS.

Third, NO_x emissions data shows that NO_x emissions have continuously trended downward from the years 1987 to 2017.⁹ For example, the point source emissions data provided by the Commonwealth indicates that NO_x emissions for point sources from 2008 to 2016 has declined by approximately 57 percent.¹⁰ EPA data also confirms that NO_x emissions from point sources from Kentucky have declined from 2008 to 2017,¹¹ and NO_x emissions from all sectors declined between 2002 and 2014.¹²

Finally, Kentucky identifies the following SIP-approved regulations that directly or indirectly control NO_x emissions: 401 KAR 50:055 - *General compliance requirements*; 401 KAR 50:060 - *Enforcement*; 401 KAR 51:001 - *Definitions for 401 KAR Chapter 51*; 401 KAR 51:005 - *Purpose and general provisions*; 401 KAR 51:010 - *Attainment status designations*; 401 KAR 51:017 - *Prevention of significant deterioration of air quality*; 401 KAR 51:052 - *Review of new sources in or impacting upon attainment areas*; 401 KAR 51:150 - *NO_x requirements for stationary internal combustion engines*; 401 KAR 51:170 - *NO_x requirements for cement kilns*; 401 KAR 52:030 - *Federally-enforceable permits for non-major sources*; 401 KAR 52:100 -

⁸ Monitoring sites must meet the data completeness requirements listed in Appendix S to 40 CFR Part 50 in order to have a valid design value. Table 1 in Kentucky's submittal did not include the valid design value of 49 ppb recorded at AQS ID: 21-111-0075 in Louisville/Jefferson County or the invalid design value of 41 recorded at monitor number 21-111-0067 in Louisville/Jefferson County. Table 2 in Kentucky's submittal includes all highest, valid design values for the neighboring states of Illinois, Indiana, Missouri, Ohio, Tennessee, and Virginia. These values can be found on EPA's air quality design value website at <https://www.epa.gov/air-trends/air-quality-design-values>.

⁹ See Figure 1 in Kentucky's November 16, 2018 submittal.

¹⁰ See Table 4 in Kentucky's submittal. The data is presented in the submittal from 2008-2016 to display the decline in emissions from the start of CAIR in 2008, and then transitioning to CSAPR in 2011.

¹¹ See Emissions Inventory System data for Kentucky, available in the docket to this action.

¹² See 2014 National Emissions Inventory (NEI) Report, available at https://edap.epa.gov/public/extensions/nei_report_2014/dashboard.html#trend-db. The 2014 NEI Report is the latest available report.

Public, affected state, and US EPA review; 401 KAR 53:005 - General provisions; 401 KAR 53:010 - Ambient air quality standards; 401 KAR 59:001 - Definitions for abbreviations of terms used in the Title 401, Chapter 59; 401 KAR 59:005 - General provisions; 401 KAR 59:015 - New indirect heat exchangers; 401 KAR 61:001 - Definitions for abbreviations of terms used in the Title 401, Chapter 61; 401 KAR 61:005 - General provisions; 401 KAR 61:015 - Existing indirect heat exchangers; and 401 KAR 61:065 - Existing nitric acid plants.

Kentucky also identified state-only provisions as additional regulations that the Commonwealth is implementing that provide for the control of NO_x emissions: 401 KAR 52:060 - *Acid rain permits*; 401 KAR 51:240 - *Cross-State Air Pollution Rule (CSAPR)*¹³ *NO_x annual trading program*; 401 KAR 51:250 - *Cross-State Air Pollution Rule (CSAPR Update)*¹⁴ *NO_x ozone season group 2 trading program*.¹⁵ EPA notes that the CSAPR and Update rule were established to address transport for the ozone (1997 and 2008) and fine particulate matter (1997 and 2006) standards, however, the trading programs may yield residual NO_x emissions reduction benefits.¹⁶ Further, Kentucky identifies the following provisions where limited portions have been approved into the SIP: 401 KAR 52:020 - *Title V permits*; 401 KAR 52:040 - *State-origin permits*; and 401 KAR 52:070 - *Registration of designated sources*.

For the reasons discussed above, EPA has preliminarily determined that Kentucky does not contribute significantly to nonattainment or interfere with maintenance of the 2010 1-hour NO₂ NAAQS in any other state, and that Kentucky's SIP includes adequate provisions to prevent

¹³ See 76 FR 48208.

¹⁴ See 81 FR 74504.

¹⁵ The EPA notes that Kentucky submitted a SIP revision for 401 KAR 51.240, 401 KAR 51.250, and 401 KAR 51.260 on September 17, 2018 to the EPA to adopt the CSAPR and Update trading programs into their SIP.

¹⁶ Kentucky further included existing national rules that are designed to reduce emissions from on-road and off-road vehicles through the year 2025 and beyond. This information can be found in Kentucky's submittal.

emissions sources within the Commonwealth from significantly contributing to nonattainment or interfering with maintenance of this standard in any other state.

III. Proposed Action

As described above, EPA is proposing to approve Kentucky's November 16, 2018, SIP revision addressing prongs 1 and 2 of CAA section 110(a)(2)(D)(i) for the 2010 1-hour NO₂ NAAQS.

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 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 that they meet the criteria of the CAA. This action merely proposes to approve 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).

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 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 dioxide, Ozone, Reporting and recordkeeping requirements.

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

Dated: May 6, 2019.

Mary S. Walker,
Acting Regional Administrator,
Region 4.

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