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 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 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 14094 (88 FR 21879, April 11, 2023);
- 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 (Pub. L. 104–4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- 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 Clean Air Act.

In addition, 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 and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, February 16, 1994) directs Federal agencies to identify and address ''disproportionately high and adverse human health or environmental effects'' of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. EPA defines environmental justice (EJ) as ''the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.'' EPA further defines the term fair treatment to mean that ''no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.''

IDEM did not evaluate environmental justice considerations as part of its SIP submittal; the CAA and applicable implementing regulations neither prohibit nor require such an evaluation. EPA performed an environmental justice analysis, as is described in section IV of this preamble titled, ''Environmental Justice Considerations.'' The analysis was done for the purpose of providing additional context and information about this rulemaking to the public, not as a basis of the action. Due to the nature of the action being taken here, this action is expected to have a neutral to positive impact on the air quality of the affected area. In addition, there is no information in the record upon which this decision is based inconsistent with the stated goal of E.O. 12898 of achieving environmental justice for minority, low-income populations, and Indigenous peoples.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: June 20, 2023.

Debra Shore,

Regional Administrator, Region 5.

[FR Doc. 2023–13524 Filed 6–23–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2019–0535; FRL–11020–01–R4]

Air Plan Approval; TN; 2010 1-Hour SO_2 NAAQS Transport Infrastructure

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve Tennessee's July 31, 2019, State Implementation Plan (SIP) submission pertaining to the ''good neighbor'' provision of the Clean Air Act (CAA or Act) for the 2010 1-hour sulfur dioxide (SO_2) National Ambient Air Quality Standard (NAAQS). The good neighbor provision requires each State's implementation plan to contain adequate provisions prohibiting the interstate transport of air pollution in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of a NAAQS in any other State. In this action, EPA is proposing to determine that Tennessee will not contribute significantly to nonattainment or interfere with maintenance of the 2010 1-hour SO_2 NAAQS in any other State. Therefore, EPA is proposing to approve the July 31, 2019, SIP revision as meeting the requirements of the good neighbor provision for the 2010 1-hour SO_2 NAAQS.

DATES: Written comments must be received on or before July 26, 2023.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R04–OAR–2019–0535 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://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Evan Adams, 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 via phone number (404) 562–9009 or via electronic mail at *adams.evan@epa.gov.*

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I. Background

A. Infrastructure SIPs

On June 2, 2010, EPA promulgated a revised primary SO_2 NAAQS with a level of 75 parts per billion (ppb), based on a 3-year average of the annual 99th percentile of daily maximum 1-hour average concentrations. *See* 75 FR 35520 (June 22, 2010). 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. This particular type of SIP submission is commonly referred to as an ''infrastructure SIP.'' [1] These submissions must meet the various requirements of CAA section 110(a)(2), as applicable.

Section 110(a)(2)(D)(i)(I) of the CAA requires SIPs to include provisions prohibiting any source or other type of emissions activity in one State from emitting any air pollutant in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of the NAAQS in another State. The two clauses of this section are referred to as prong 1 (significant contribution to nonattainment of the NAAQS) and prong 2 (interference with maintenance of the NAAQS).

The Tennessee Department of Environment & Conservation (TDEC) submitted a revision to the Tennessee SIP on July 31, 2019,[2] addressing prongs 1 and 2 of CAA section 110(a)(2)(D)(i)(I) for the 2010 1-hour SO_2 NAAQS.[3] Updated transport modeling for the Eastman Chemical facility in Sullivan County, Tennessee, was completed and submitted to EPA on November 30, 2021 to supplement the July 31, 2019 submission.[4] EPA is proposing to approve TDEC's July 31, 2019, SIP submission because the State demonstrated that Tennessee will not contribute significantly to nonattainment, or interfere with maintenance, of the 2010 1-hour SO_2 NAAQS in any other State. All other elements related to the infrastructure requirements of section 110(a)(2) for the 2010 1-hour SO_2 NAAQS for Tennessee have been addressed in separate rulemakings.[5]

B. 2010 1-Hour SO_2 NAAQS Designations Background

In this proposed action, EPA has considered information from the 2010 1-hour SO_2 NAAQS designations process, as discussed in more detail in section III.C of this notice. For this reason, a brief summary of EPA's designations process for the 2010 1-hour SO_2 NAAQS is included here.[6]

After the promulgation of a new or revised NAAQS, EPA is required to designate areas as ''nonattainment,'' ''attainment,'' or ''unclassifiable'' pursuant to section 107(d)(1)–(2) of the CAA. The process for designating areas following promulgation of a new or revised NAAQS is contained in section 107(d) of the CAA. The CAA requires EPA to complete the initial designations process within two years of promulgating a new or revised standard. If the Administrator has insufficient information to make these designations by that deadline, EPA has the authority to extend the deadline for completing designations by up to one year.

EPA promulgated the 2010 1-hour SO_2 NAAQS on June 2, 2010. *See* 75 FR 35520 (June 22, 2010). The EPA Administrator signed the first round [7] of designations (''Round 1'') [8] for the 2010 1-hour SO_2 NAAQS on July 25, 2013, designating 29 areas in 16 States as nonattainment for the 2010 1-hour SO_2 NAAQS. *See* 78 FR 47191 (August 5, 2013). The EPA Administrator signed **Federal Register** notices for Round 2 designations [9] on June 30, 2016 (81 FR 45039 (July 12, 2016)) and on November 29, 2016 (81 FR 89870 (December 13, 2016)). Round 3 designations [10] were signed on December 21, 2017 (83 FR 1098 (January 9, 2018)) and March 28, 2018 (83 FR 14597 (April 5, 2018)).

[1] In 2012, EPA decided to retain the current secondary NAAQS for SO_2. Thus, the CAA section 110(a)(1) requirement to submit an infrastructure SIP for this secondary standard was not triggered. The secondary SO_2 standard is 500 ppb averaged over three hours, not to be exceeded more than once per year. *See* 77 FR 20218 (April 3, 2012).

[2] TDEC's SIP revision was submitted August 1, 2019, through a transmittal letter dated July 31, 2019.

[3] On March 13, 2014, TDEC submitted a SIP revision addressing all infrastructure elements with respect to the 2010 1-hour SO_2 NAAQS with the exception of prongs 1 and 2 of CAA 110(a)(2)(D)(i)(I).

[4] EPA officially received the supplemental file dated November 30, 2021 on December 7, 2021.

[5] EPA acted on all other infrastructure elements for the 2010 1-hour SO_2 NAAQS in Tennessee's March 13, 2014, SIP revision on November 28, 2016 (81 FR 85410) and September 24, 2018 (83 FR 48237).

[6] While designations may provide useful information for purposes of analyzing transport, particularly for a more source-specific pollutant such as SO_2, EPA notes that designations themselves are not dispositive of whether or not upwind emissions are impacting areas in downwind states. EPA has consistently taken the position that CAA section 110(a)(2)(D)(i)(I) requires elimination of significant contribution and interference with maintenance in other states, and this analysis is not limited to designated nonattainment areas. Nor must designations for nonattainment areas have first occurred before states or the EPA can act under section 110(a)(2)(D)(i)(I). *See, e.g.,* Clean Air Interstate Rule, 70 FR 25162, 25265 (May 12, 2005); Cross State Air Pollution Rule, 76 FR 48208, 48211 (Aug. 8, 2011); Final Response to Petition from New Jersey Regarding SO_2 Emissions From the Portland Generating Station, 76 FR 69052 (Nov. 7, 2011) (finding facility in violation of the prohibitions of CAA section 110(a)(2)(D)(i)(I) with respect to the 2010 1-hour SO_2 NAAQS prior to issuance of designations for that standard).

[7] The term ''round'' in this instance refers to which ''round of designations.''

[8] EPA and state documents and public comments related to the Round 1 final designations are in the docket at *regulations.gov* with Docket ID No. EPA–HQ–OAR–2012–0233 and at EPA's website for SO_2 designations at *https://www.epa.gov/sulfur-dioxide-designations.*

[9] EPA and state documents and public comments related to the Round 2 final designations are in the docket at *regulations.gov* with Docket ID No. EPA–HQ–OAR–2014–0464 and at EPA's website for SO_2 designations at *https://www.epa.gov/sulfur-dioxide-designations.*

[10] EPA and state documents and public comments related to Round 3 final designations are in the docket at *regulations.gov* with Docket ID No. EPA–HQ–OAR–2017–0003 and at EPA's website for SO_2 designations at *https://www.epa.gov/sulfur-dioxide-designations.*

Round 4 designations [11] were signed on December 21, 2020 (86 FR 16055 (March 26, 2021)) [12] and April 8, 2021 (86 FR 19576 (April 14, 2021)).[13]

In Round 1 and Round 2 of designations, EPA designated one SO_2 nonattainment area and one unclassifiable area in Tennessee. In Round 1, EPA designated a portion of Sullivan County as nonattainment for the 2010 1-hour SO_2 NAAQS based on air quality monitoring data.[14] In Round 2, EPA designated Sumner County as unclassifiable for the 2010 1-hour SO_2 NAAQS.[15] The remaining counties in Tennessee were designated as attainment/unclassifiable in Round 3; therefore, no areas in Tennessee were designated in Round 4.[16] Although the designations process is separate from action on Tennessee's SO_2 transport SIP, EPA proposes the information relied on in the designations process can be helpful in evaluating Tennessee's SO_2 transport obligations.

II. Relevant Factors Used To Evaluate 2010 1-Hour SO_2 Interstate Transport SIPs

Although SO_2 is emitted from a similar universe of point and nonpoint sources as is directly emitted fine particulate matter ($PM_{2.5}$) and the precursors to ozone and $PM_{2.5}$, interstate transport of SO_2 is unlike the transport of $PM_{2.5}$ or ozone because SO_2 emissions usually do not have long-range transport in the atmosphere. The transport of SO_2 relative to the 2010 1-hour SO_2 NAAQS is more analogous to the transport of lead (Pb) relative to the Pb NAAQS in that emissions of SO_2 typically result in 1-hour pollutant impacts of greatest concern near the emissions source. However, ambient 1-hour concentrations of SO_2 do not decrease as quickly with distance from the source as do 3-month average concentrations of Pb, because SO_2 gas is not removed by deposition as rapidly as are Pb particles. Emitted SO_2 has wider-ranging impacts than emitted Pb, but it does not have such wide-ranging impacts that treatment in a manner similar to ozone or $PM_{2.5}$ would be appropriate. Accordingly, the approaches that EPA has adopted for ozone or $PM_{2.5}$ transport are too regionally focused, and the approach for Pb transport is too tightly circumscribed to the source, to be appropriate for assessing SO_2 transport. SO_2 transport is therefore a unique case and requires a different approach.

In this proposed rulemaking, as in prior SO_2 transport analyses, EPA focuses on a 50 kilometer (km)-wide zone because the physical properties of SO_2 result in relatively localized pollutant impacts near an emissions source that drop off with distance. Given the properties of SO_2, EPA selected a spatial scale with dimensions from four to 50 km from point sources—the ''urban scale''—to assess trends in area-wide air quality that might impact downwind States.[17]

In its July 31, 2019, SIP submission, TDEC identified a 50-km distance threshold to reflect the transport properties of SO_2. TDEC used this 50-km threshold for the supporting analyses in the submission, and notes that this 50-km distance is the modeling domain limit of the EPA-recommended American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) modeling system.

Given the properties of SO_2, EPA preliminarily agrees with Tennessee's selection of the urban scale to assess trends in area-wide air quality that might impact downwind states. As discussed further in section III.B, EPA proposes that Tennessee's selection of the urban scale is appropriate for assessing trends in both area-wide air quality and the effectiveness of large-scale pollution control strategies at SO_2 point sources. Tennessee's selection of this transport distance for SO_2 is consistent with 40 CFR part 58, Appendix D, Section 4.4.4(4) ''Urban scale,'' which States that measurements in this scale would be used to estimate SO_2 concentrations over large portions of an urban area with dimensions from four to 50 km. AERMOD is EPA's preferred modeling platform for regulatory purposes for near-field dispersion of emissions for distances up to 50 km. *See* Appendix W of 40 CFR part 51. Thus, EPA preliminarily concurs with Tennessee's application of the 50-km threshold to evaluate emission source impacts into neighboring states and to assess air quality monitors within 50 km of the State's border, which is discussed further in section III.C.

As discussed in sections III.C and III.D, EPA first reviewed Tennessee's analysis to assess how the State evaluated the transport of SO_2 to other States, the types of information used in the analysis, and the conclusions drawn by the State. EPA then conducted a weight of evidence analysis based on a review of the State's submission and other available information, including SO_2 air quality for monitors and available emissions and/or source modeling for sources in Tennessee and in neighboring States within 50 km of the Tennessee border.[18]

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[11] EPA and state documents and public comments related to Round 4 final designations are in the docket at *regulations.gov* with Docket ID No. EPA–HQ–OAR–2020–0037 and at EPA's website for SO_2 designations at *https://www.epa.gov/sulfur-dioxide-designations.*

[12] The Round 4 2010 1-hour SO_2 NAAQS designations action was signed by former EPA Administrator Andrew Wheeler on December 21, 2020, pursuant to a court-ordered deadline of December 31, 2020. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, former Acting Administrator Jane Nishida re-signed the same action on March 10, 2021, for publication in the **Federal Register**.

[13] On August 21, 2015 (80 FR 51052), EPA separately promulgated air quality characterization requirements for the 2010 1-hour SO_2 NAAQS in the Data Requirements Rule (DRR). The DRR requires state air agencies to characterize air quality, through air dispersion modeling or monitoring, in areas associated with sources that emitted in 2014 2,000 tons per year (tpy) or more of SO_2, or that have otherwise been listed under the DRR by EPA or state air agencies. In lieu of modeling or monitoring, state air agencies, by specified dates, could elect to impose federally enforceable emissions limitations on those sources restricting their annual SO_2 emissions to less than 2,000 tpy, or provide documentation that the sources have been shut down. EPA used the information generated by implementation of the DRR to help inform Round 4 designations for the 2010 1-hour SO_2 NAAQS.

[14] See August 5, 2013, final rulemaking (78 FR 47191, 47204) and EPA's *Technical Support Document (TSD): Tennessee—Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard,* at *https://www.epa.gov/sites/production/files/2016-03/documents/tn-tsd.pdf.*

[15] EPA designated Sumner County, Tennessee, as unclassifiable in Round 2 designations for the 2010 1-hour SO_2 NAAQS in a notice published July 12, 2016 (81 FR 45039). *See also* EPA's *Final Technical Support Document: Tennessee—Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard,* at *https://www.epa.gov/sites/production/files/2016-07/documents/r4_tn_final_designation_tsd_06302016.pdf.* On September 29, 2020, TDEC submitted a request to redesignate Sumner County to attainment and to terminate DRR reporting requirements for TVA-Gallatin. On May 25, 2021, the final rule to redesignate Sumner County as attainment/unclassifiable was published (86 FR 27981). EPA did not receive any comments on the proposed rulemaking. EPA is not requesting review and comment on the redesignation for Sumner County, Tennessee, in this proposed action.

[16] *See Technical Support Document: Chapter 38 Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee*, at *https://www.epa.gov/sites/production/files/2017-12/documents/38-tn-so2-rd3-final.pdf. See also Technical Support Document: Chapter 38 Intended Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee,* at *https://www.epa.gov/sites/production/files/2017-08/documents/39_tn_so2_rd3-final.pdf.*

[17] For the definition of spatial scales for SO_2, see 40 CFR part 58, Appendix D, section 4.4 (''Sulfur Dioxide (SO_2) Design Criteria''). For further discussion on how EPA applies these definitions with respect to interstate transport of SO_2, see EPA's proposed rulemaking on Connecticut's SO_2 transport SIP. *See* 82 FR 21351, 21352, 21354 (May 8, 2017).

[18] This proposed approval action is based on the information contained in the administrative record for this action and does not prejudge any other future EPA action or determinations regarding Tennessee's or any neighboring State's air quality

III. Tennessee's SIP Submission and EPA's Analysis

A. State Submission

Through a letter dated July 31, 2019, TDEC submitted a revision to the Tennessee SIP addressing prongs 1 and 2 of CAA section 110(a)(2)(D)(i)(I) for the 2010 1-hour SO_2 NAAQS. TDEC supplemented this submittal with updated transport modeling for the Eastman Chemical facility on November 30, 2021. Tennessee conducted a weight of evidence analysis to examine whether SO_2 emissions from the State adversely affect attainment or maintenance of the 2010 1-hour SO_2 NAAQS in downwind States.

TDEC concluded that the State is meeting its prong 1 and prong 2 obligations for the 2010 1-hour SO_2 NAAQS. TDEC based its conclusions for prongs 1 and 2 on: SO_2 design values (DVs) [19] for 2015–2017 and 2016–2018 along with the 99th percentile 1-hour SO_2 concentrations for the years 2015 through 2018 at the air quality monitors in Tennessee and the surrounding States of Alabama, Arkansas, Georgia, Kentucky, Mississippi, Missouri, North Carolina, South Carolina, and Virginia; declining SO_2 emissions trends in Tennessee from 2005 to 2014 (all source categories); [20] the percent change in SO_2 emissions by source category from 2005 to 2014; SO_2 sources assessed in EPA's 2010 1-hour SO_2 NAAQS designations process which are located within 50 km of the State's border; and State and Federal regulations that establish requirements for sources of SO_2 emissions. Based on this analysis, the State concluded that emissions within Tennessee will not contribute significantly to nonattainment or interfere with maintenance of the 2010 1-hour SO_2 NAAQS in any other State. EPA's evaluation of Tennessee's submission is detailed in sections III.B, C, and D.

B. EPA's Evaluation Methodology

EPA acknowledges the State's analysis in the July 31, 2019, submission as well as the supplemental modeling submitted on November 30, 2021. EPA has evaluated this information, and further supplements the State's analysis of sources here to ensure there are no further SO_2 emissions controls needed for meeting CAA interstate transport requirements. EPA proposes that a reasonable starting point for determining which sources and emissions activities in Tennessee are likely to impact downwind air quality in other States with respect to the 2010 1-hour SO_2 NAAQS is by using information in EPA's National Emissions Inventory (NEI).[21] The NEI is a comprehensive and detailed estimate of air emissions for criteria pollutants, criteria pollutant precursors, and hazardous air pollutants from air emissions sources, that is updated every three years using information provided by the states and other information available to EPA. EPA evaluated data from the 2017 NEI released in April of 2020, the most recently available, complete, and quality assured dataset of the NEI.[22]

As shown in Table 1, the majority of SO_2 emissions in Tennessee originate from point sources.[23] In 2017, the total SO_2 emissions from point sources in Tennessee comprised approximately 93 percent of the total SO_2 emissions in the State. The remaining emissions from non-point sources in the other listed source categories are more dispersed throughout the State and are therefore less likely to contribute to high ambient concentrations when compared to a point source on a ton-for-ton basis. Based on EPA's analysis of the 2017 NEI, EPA proposes that it is appropriate to focus the analysis on SO_2 emissions from Tennessee's larger point sources (*i.e.,* emitting over 100 tons per year (tpy) of SO_2 in 2019,[24] the emissions data available in EPA's Emissions Inventory System (EIS)),[25] which are located within the ''urban scale,'' *i.e.,* within 50 km of one or more State borders.

TABLE 1—SUMMARY OF 2017 NEI SO_2 DATA FOR TENNESSEE BY SECTOR TYPE

Category	Emissions (tpy)	Percent of total SO_2 emissions
Fuel Combustion: Electric Generating Units (EGUs) (All Fuel Types)	24,328.80	52.05
Fuel Combustion: Industrial Boilers/Internal Combustion Engines (All Fuel Types)	15,517.78	33.20
Fuel Combustion: Commercial/Institutional (All Fuel Types)	93.21	0.20
Fuel Combustion: Residential (All Fuel Types)	131.84	0.28
Industrial Processes (All Categories)	3,110.95	6.66
Mobile Sources (All Categories)	1143.20	1.55
Fires (All Types)	1,681.00	3.60
Waste Disposal	726.70	1.55
Solvent Processes	0.97	0
Bulk Gasoline Terminal	0.04	0

status. Any such future actions, such as area designations under any NAAQS, will be based on their own administrative records and EPA's analyses of information that become available at those times. Future available information may include, and is not limited to, monitoring data and modeling analyses conducted pursuant to the DRR and information submitted to EPA by States, air agencies, and third-party stakeholders such as citizen groups and industry representatives.

[19] A ''Design Value'' or DV is a statistic that describes the air quality status of a given location relative to the level of the NAAQS. The DV for the primary 2010 1-hour SO_2 NAAQS is the 3-year average of annual 99th percentile daily maximum 1-hour average concentrations for a monitoring site. For example, the 2019 DV is calculated based on the three-year average from 2017–2019. The interpretation of the primary 2010 1-hour SO_2 NAAQS, including the data handling conventions and calculations necessary for determining compliance with the NAAQS, can be found in Appendix T to 40 CFR part 50.

[20] Table 2 of Tennessee's SIP revision also provides 2017 data for the point source category only, which showed a 49,713.42 ton decrease from 90,283.03 tons in 2014 to 40,569.61 tons in 2017.

[21] EPA's NEI is available at *https://www.epa.gov/air-emissions-inventories/national-emissions-inventory.*

[22] EPA evaluated the January 2021 version of the 2017 NEI. For more information, see the website: *https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data.*

[23] Tennessee's point sources, for the purposes of this action, are comprised of all of the following emissions source categories in Table 1: ''Fuel Combustion'' categories with the exception of residential fuel combustion, the ''Industrial Processes (All Categories),'' and ''Waste Disposal.'' Residential fuel combustion is considered a nonpoint source and, thus, residential fuel combustion data is not included in the point source fuel combustion data and related calculations.

[24] With respect to EPA's evaluation of sources emitting greater than 100 tpy of SO_2 in 2019, in the absence of special factors, for example the presence of nearby larger sources or unusual factors (such as a very high concentration of smaller sources), sources emitting less than or equal to 100 tpy SO_2 can be appropriately presumed to not be contributing significantly to nonattainment or interfering with maintenance of the 2010 1-hour SO_2 NAAQS.

[25] EPA's EIS is available at: *https://www.epa.gov/air-emissions-inventories/emissions-inventory-system-eis-gateway.*

TABLE 1—SUMMARY OF 2017 NEI SO_2 DATA FOR TENNESSEE BY SECTOR TYPE—Continued

Category	Emissions (tpy)	Percent of total SO_2 emissions
Miscellaneous (Non-Industrial)	3.63	0.01
SO_2 Emissions Total	46,738.12	100

As explained in Section II, because the physical properties of SO_2 result in relatively localized pollutant impacts near an emissions source that drop off with distance, in SO_2 transport analyses, EPA focuses on a 50 km-wide zone. Thus, EPA focused its evaluation on Tennessee's point sources of SO_2 emissions located within approximately 50 km of another State and their potential impact on neighboring States.

EPA's implementation strategy for the 2010 1-hour SO_2 NAAQS included the flexibility in certain circumstances to characterize air quality for stationary sources subject to EPA's Data Requirements Rule ''DRR'' via either data collected at ambient air quality monitors sited to capture the points of maximum concentration, or air dispersion modeling (hereinafter referred to as ''DRR monitors'' or ''DRR modeling,'' respectively). EPA's assessment of SO_2 emissions from Tennessee's point sources located within approximately 50 km of another State and their potential impacts on neighboring States (see sections III.C.1. and III.C.2. of this rulemaking) and SO_2 air quality data at monitors within 50 km of the Tennessee border (see section III.C.3. of this rulemaking) is informed by all available data at the time of this proposed rulemaking.[26]

As described in this section, EPA proposes that an assessment of Tennessee's satisfaction of the prong 1 and 2 requirements under section 110(a)(2)(D)(i)(I) of the CAA for the 2010 1-hour SO_2 NAAQS may be reasonably based upon evaluating the downwind impacts via modeling and an assessment of SO_2 emissions from Tennessee's point sources emitting more than 100 tpy of SO_2 that are located within approximately 50 km of another State, other States' point sources emitting more than 100 tpy of SO_2 that are located within approximately 50 km of Tennessee, and upon any Federal regulations and SIP-approved regulations affecting SO_2 emissions of Tennessee's SO_2 sources.

C. EPA's Prong 1 Evaluation: Significant Contribution to Nonattainment

Prong 1 of the good neighbor provision requires States' plans to prohibit emissions that will contribute significantly to nonattainment of a NAAQS in another State. TDEC confirms in its submission that, with its existing, SIP-approved SO_2 emissions controls in place in conjunction with Federal pollution control requirements, Tennessee will not contribute significantly to nonattainment in any other State with respect to the 2010 1-hour SO_2 standard. To evaluate Tennessee's satisfaction of prong 1, EPA assessed the State's implementation plan submission with respect to the following factors: (1) potential ambient impacts of SO_2 emissions from certain facilities in Tennessee on neighboring States based on available SO_2 air dispersion modeling results; (2) SO_2 emissions from Tennessee sources; (3) SO_2 ambient air quality for Tennessee and neighboring States; (4) SIP-approved Tennessee regulations that address SO_2 emissions; and (5) Federal regulations that reduce SO_2 emissions at Tennessee sources. EPA has reviewed Tennessee's submission, and where new or more current information has become available, EPA is including this information as part of the Agency's evaluation of this submission, and the discussion with respect to the four factors proceeds in the next sections.

EPA proposes that, based on the information available at the time of this rulemaking, these factors, taken together, support Tennessee's proposed determination that the State will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in another State.

1. SO_2 Designations Air Dispersion Modeling

(a) State Submission

In its July 31, 2019, SIP submission, TDEC summarized existing modeling for five sources in Tennessee addressed in different rounds of designations for the 2010 1-hour SO_2 NAAQS: Eastman Chemical Company (Eastman Chemical) facility (Round 1); [27] and Tennessee Valley Authority (TVA) coal-fired power plants Gallatin (TVA-Gallatin) (Round 2), Allen Fossil Plant (TVA-Allen), TVA-Cumberland, and TVA-Johnsonville (Round 3).[28] Of these five sources described in the July 31, 2019, SIP submission, four are located within 50 km of another State: Eastman Chemical, TVA-Gallatin, TVA-Allen, and TVA-Cumberland.[29] In addition, TDEC characterized SO_2 concentrations for Eastman Chemical, TVA-Gallatin, and TVA-Cumberland by extending the modeling domains for these sources into neighboring States and noting the modeled maximum 1-hour SO_2 concentrations in the neighboring States.[30] With respect to TVA-Gallatin, on September 29, 2020, TDEC submitted a request to redesignate Sumner County, Tennessee, from unclassifiable to attainment/unclassifiable for the 2010 1-hour SO_2 NAAQS (''Sumner County redesignation request'') which included a modeling analysis of TVA-Gallatin's SO_2 emissions. EPA finalized approval of TDEC's Sumner County redesignation

[26] EPA notes that the evaluation of other States' satisfaction of section 110(a)(2)(D)(i)(I) for the 2010 1-hour SO_2 NAAQS can be informed by similar factors found in this proposed rulemaking but may not be identical to the approach taken in this or any future rulemaking for Tennessee, depending on available information and state-specific circumstances.

[27] In Round 1 of the 2010 1-hour SO_2 NAAQS designations, EPA designated a portion of Sullivan County ''nonattainment'' for the 2010 1-hour SO_2 NAAQS based on air quality monitoring data. This nonattainment portion of Sullivan County encompasses a 3-km radius centered at Eastman Chemical's B–253 powerhouse, located at 36.5186 N. 82.5350 W.

[28] See modeling results for the following Tennessee sources in the July 31, 2019, SIP submission: Table 8 on p.17 for Eastman Chemical and Table 11 on p.22 for TVA-Allen, TVA-Cumberland, TVA-Gallatin, and TVA-Johnsonville.

[29] TVA-Johnsonville is located approximately 52 km from the Kentucky border, and thus, TDEC did not further analyze this source.

[30] The receptor grid started at the Tennessee border and ended at a distance of 50 km from the source: for Eastman Chemical, the grid started at 8 km (the distance to the Tennessee-Virginia border) and went 42 km into Virginia (50 km from Eastman Chemical); for TVA-Gallatin, the grid started at 37 km (the distance from the source to Tennessee-Kentucky border) and extended 13 km into Kentucky (50 km from TVA-Gallatin); and for TVA-Cumberland, the grid started at 27 km (the distance from the source to the Tennessee-Kentucky border) and extended 23 km into Kentucky (50 km from TVA-Cumberland). TDEC relied on the existing 10-km distance used in the TVA-Allen modeling because the modeling domain already extended into Arkansas (10 − 3.5 = 6.5 km) and Mississippi (10 − 9 = 1 km) (see page 30 of Tennessee's SIP revision). The modeling results showed no maximum 1-hour SO_2 concentrations above the level of the 2010 1-hour SO_2 NAAQS within the modeled domains.

request on May 25, 2021. See 86 FR 27981. A summary of the existing Round 3 modeling for TVA-Allen; TDEC's updated modeling for TVA-Cumberland included in the July 31, 2019, SIP submission; TDEC's modeling to support the Sumner County redesignation request; and TDEC's updated transport modeling for the Eastman Chemical facility dated November 30, 2021, along with supplemental data that has been reviewed as part of the Agency's analysis, is provided in Table 2 of this section.[31]

TDEC also evaluated existing modeling available for DRR sources in other States which are located within 50 km of the Tennessee border: [32] Ascend Performance Materials-Decatur Plant (Ascend) in Alabama (39 km); Plum Point Energy Station in Arkansas (Plum Point) (2.5 km); and Sikeston Power Station (Sikeston) in Missouri (44 km). TDEC states that the three modeled DRR sources (Ascend,[33] Plum Point, and Sikeston) demonstrated attainment of the 2010 1-hour SO_2 NAAQS, with maximum modeled 1-hour SO_2 concentrations of 72.0, 14.9, and 37.2 ppb, respectively.[34]

[31] EPA is opting not to rely on the updated modeling TDEC included in the July 31, 2019, SIP submission for Eastman Chemical or for TVA-Gallatin for this action because more recent, revised modeling is available. For Eastman Chemical, EPA is relying on revised modeling submitted on November 30, 2021, and for TVA-Gallatin, EPA is relying upon modeling submitted by TDEC to EPA in support of the September 29, 2020, redesignation request for Sumner County, Tennessee, from unclassifiable to attainment/unclassifiable for the 2010 1-hour SO_2 NAAQS, which is summarized in Table 2 of section III.C.1.b.

[32] See Table 26 of Section 4.4 on page 35 of TDEC's July 31, 2019, SIP submission.

[33] As explained in section III.C.1.b, EPA previously determined that the Agency does not have sufficient information to demonstrate whether the area around Ascend meets or does not meet the 2010 1-hour SO_2 NAAQS or contributes to an area that does not meet the standard, and thus designated the area around Ascend as unclassifiable. Although EPA does not have any indications that there are violations of the 2010 1-hour SO_2 NAAQS in the area around Ascend, the Agency assessed Ascend in section III.C.2.b of this proposed action with respect to interstate transport for the 2010 1-hour SO_2 NAAQS. According to June 6, 2019, and December 2, 2019, emails from ADEM to EPA, Ascend ceased operating Boiler #5, Boiler #6 is set to cease operations in 2020, and Cokers #1 and #2 were set to cease operations in 2021. However, EPA notes, as of November 30, 2021, that Boiler #5 and Coker #2 were removed from service in 2019 and 2021 respectively and Coker #1 and Boiler #6 are still operating under the facility's current Title V permit. ADEM's June 6, 2019, and December 2, 2019, emails are included in the docket for a separate rulemaking action published December 31, 2019 (84 FR 72278) at *www.regulations.gov* at Docket ID No. EPA–R04–OAR–2018–0792.

[34] See Table 27 of Section 4.4 on page 35 of TDEC's July 31, 2019, SIP submission.

(b) EPA Analysis

EPA evaluated existing SO_2 modeling results for three SO_2 sources in Tennessee within 50 km of the State's border (*i.e.,* TVA-Allen, TVA-Cumberland, and TVA-Gallatin), and new modeling for Eastman Chemical, to ascertain whether these sources in Tennessee may potentially be contributing significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in a downwind state. EPA evaluated the modeling analyses provided for TVA-Allen and TVA-Cumberland in Tennessee's July 31, 2019, SIP submission. For TVA-Allen, TDEC analyzed existing DRR modeling for this source because the modeling done for TVA-Allen for Round 3 of designations had a receptor grid that already extended into the neighboring States. For TVA-Cumberland, TDEC characterized SO_2 concentrations out to 50 km from the source.[35] In addition, EPA evaluated modeling for TVA-Gallatin that TDEC provided to support the Sumner County redesignation request, which EPA has summarized in Table 2 of this section.[36] For Eastman Chemical, EPA evaluated TDEC's updated SO_2 transport modeling dated November 30, 2021. Details of the modeling for each of these four sources are discussed below and summarized in Table 2. A more detailed evaluation of Tennessee's modeling analyses for these sources is included in the Modeling Technical Support Document (TSD) available in the docket for this proposed action.

TVA-Allen and TVA-Cumberland are Round 3 DRR sources in Tennessee located within 50 km of another state.[37] In its July 31, 2019, SIP submission, TDEC modified the modeling for TVA-Cumberland submitted for Round 3 and characterized SO_2 concentrations using a receptor grid that started at the Tennessee border and ended at a distance of 50 km from the source to assess potential impacts in Kentucky, whose border is approximately 27 km away from this source. In the Round 3 designations modeling, TDEC evaluated whether there were any large sources within the modeling domain that needed to be included in the modeling to evaluate cumulative impacts. As discussed in the Round 3 designations TSD,[38] TDEC determined that no other large sources needed to be included in the modeling. EPA reviewed TDEC's modeling and has determined that no large sources are located in Kentucky that would interact with the emissions from the Cumberland plant to contribute significantly to nonattainment of the NAAQS across the Kentucky border. TDEC's modeling results showed no maximum 1-hour SO_2 concentrations above the level of the 2010 1-hour SO_2 NAAQS anywhere within the modeled domain, which extends into Kentucky.

TVA-Allen is located approximately 3.5 km from Arkansas and 9 km from

[35] As discussed in section I.B, Tennessee used air dispersion modeling to characterize air quality in the vicinity of certain SO_2 emitting sources to identify the maximum 1-hour SO_2 concentrations in ambient air which informed EPA's 2010 1-hour SO_2 NAAQS designations. The available air dispersion modeling, using AERMOD, of certain SO_2 sources can support interstate transport-related conclusions about whether sources in one state are potentially contributing significantly to nonattainment or interfering with maintenance of the 2010 1-hour SO_2 standard in other states. While AERMOD was not designed specifically to address interstate transport, the 50-km distance that EPA recommends for use with AERMOD aligns with the concept that there are localized pollutant impacts of SO_2 near an emissions source that drop off with distance. Thus, EPA proposes that the use of AERMOD provides a reliable indication of air quality for interstate transport purposes.

[36] Due to size and incompatibility with the Federal Docket Management System, the supporting modeling files for the Sumner County redesignation request (Docket ID No. EPA–R04–OAR–2020–0482) are available at the EPA Region 4 office for review. To request these files, please contact the person listed in the proposed rule for the Sumner County redesignation request under the section titled **FOR FURTHER INFORMATION CONTACT** for that action.

[37] The modeling results for Tennessee's DRR-subject sources which elected to model for Round 3 designations (TVA-Allen, TVA-Cumberland, and TVA-Johnsonville) may be found in the initial and final Round 3 technical support documents for Tennessee. *See Technical Support Document: Chapter 38 Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee,* at *https://www.epa.gov/sites/production/files/2017-12/documents/38-tn-so2-rd3-final.pdf; see also Technical Support Document: Chapter 38 Intended Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee,* at *https://www.epa.gov/sites/production/files/2017-08/documents/39_tn_so2_rd3-final.pdf.* TVA-Johnsonville is located approximately 52 km from the Kentucky border, and thus, TDEC did not extend the modeling domain for this DRR source. The original DRR modeling results for TVA-Johnsonville show that the highest predicted 99th percentile daily maximum 1-hour concentration within the modeling domain is 48.7 ppb. Additionally, the SO_2 emissions from TVA-Johnsonville decreased from 17,812 tpy in 2012 to 17 tpy in 2020 due to the retirement and shutdown of its coal-fired boilers in 2018. The other DRR-subject source in Tennessee, Cargill Corn Milling Company, Inc., accepted a federally enforceable emissions limit as its pathway to satisfy the DRR.

[38] EPA also notes that the SO_2 emissions from TVA-Allen decreased from 9,989 tpy in 2013 to 7 tpy in 2020 due to the retirement and shutdown of its three coal-fired boilers in 2018. Details about the current emissions from TVA-Allen and Tennessee's other DRR sources are provided in TDEC's May 10, 2021, Annual Ongoing Data Requirements Rule (DRR) Report. *See* Tennessee's 2021 DRR ongoing verification report ''Annual Ongoing Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard'' in Docket No. EPA–R04–OAR–2019–0535 for this proposed action.

Mississippi. Because the 10-km receptor grid for the Round 3 designations modeling for TVA-Allen already extended into the neighboring states of Arkansas and Mississippi, TDEC did not conduct supplemental modeling for this source. The modeling results showed no maximum 1-hour SO_2 concentrations above the level of the 2010 1-hour SO_2 NAAQS anywhere in the modeled domain for this source.[38] A summary of the modeling results for TVA-Allen and TVA-Cumberland provided in the July 31, 2019, SIP submission is shown in Table 2 of this section.

TVA-Gallatin is a Round 2 source located in Sumner County, Tennessee.[39] In Round 2 of designations, EPA designated Sumner County as unclassifiable for the 2010 1-hour SO_2 NAAQS in its entirety because this initial Round 2 modeling for TVA-Gallatin was not adequate for designation purposes. In the September 29, 2020, Sumner County redesignation request, modeling was performed to characterize the SO_2 air quality around TVA-Gallatin.[40] The modeling results showed no maximum 1-hour SO_2 concentrations above the level of the 2010 1-hour SO_2 NAAQS within the 40 x 40 km modeling domain. EPA expects that the concentrations would decline further from the area of maximum concentration.

In addition to the results of the modeling, there are other factors which support EPA's proposed conclusion that TVA-Gallatin is not significantly contributing to nonattainment in neighboring Kentucky. There are no sources within 50 km of the Kentucky/Tennessee border emitting greater than 100 tpy of SO_2 in Kentucky or in the area between TVA-Gallatin and the Kentucky border based on 2017 NEI data. The nearest source in Kentucky that emits greater than 100 tpy of SO_2 is the TVA-Paradise Fossil Plant, which is located 115 km from TVA-Gallatin, 68 km from the Tennessee border, and 78 km from the Sumner County unclassifiable area. Given the localized range of potential 1-hour SO_2 emissions as explained in Section II of this notice, EPA proposes to determine that there would not be any interaction between this source and TVA-Gallatin that would result in concentrations which would exceed the 2010 1-hour SO_2 NAAQS. Additionally, EPA proposes that it is unlikely that SO_2 emissions from TVA-Gallatin travel into Kentucky in higher concentrations than what is observed in the modeling domain. As indicated in Table 2 of this section, the modeled maximum concentration at the state border of 23.1 ppb is well below the level of the 2010 1-hour SO_2 NAAQS. Thus, EPA proposes that TVA-Gallatin is not contributing significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in a neighboring state.

Eastman Chemical is a Round 1 source in Tennessee located within 50 km of another state. Specifically, Eastman Chemical is located in Sullivan County, Tennessee, approximately 8 km from the Virginia border and approximately 50 km from the borders of Kentucky and North Carolina. In its July 31, 2019, SIP submission, TDEC provided modeling for purposes of assessing Eastman Chemical's interstate transport impacts on neighboring states. TDEC's November 30, 2021, supplemental modeling replaces the modeling analysis TDEC submitted as part of its July 31, 2019, SIP submission for Eastman Chemical. TDEC's supplemental modeling included receptors extending out to 50 km to assess potential impacts in Virginia, North Carolina, and Kentucky. For this modeling, all SO_2 emitting units at Eastman Chemical were modeled using their current allowable emission limits from their current Title V permits, which are federally enforceable. Section III.C.3.b of this notice describes changes being made at Eastman Chemical to further reduce SO_2 emissions from the facility (*e.g.,* addition of Dry Sorbent Injection (DSI) controls on two boilers). TDEC's supplemental modeling does not account for these additional emissions reductions, but instead uses higher allowable emissions rates in their current Title V permits. The modeling results showed no maximum 1-hour SO_2 concentrations above the level of the 2010 1-hour SO_2 NAAQS in the neighboring states of Virginia, North Carolina, and Kentucky. The maximum 1-hour SO_2 modeled impacts in the neighboring states are: 9.1 ppb in Kentucky, 7.5 ppb in North Carolina, and 59.4 ppb in Virginia. Additionally, EPA assessed the SO_2 sources in the neighboring states of Kentucky, North Carolina, and Virginia to determine whether there are large SO_2 emission sources within 50 km of the Tennessee border whose SO_2 emissions could interact with Eastman Chemical's SO_2 emissions in such a way as to contribute significantly to nonattainment in Kentucky, Virginia, or North Carolina. This assessment concluded that there are no sources within 50 km that emit greater than 100 tpy in these neighboring states that needed to be assessed in the modeling performed by TDEC. Additional details regarding this analysis of sources in neighboring states are provided in Section III.C.3.b of this notice. Additional details regarding the EPA's evaluation of TDEC's modeling are provided in the Modeling TSD available in the docket supporting this proposed action. Considering the results of TDEC's modeling, EPA proposes that Eastman Chemical is not contributing significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in a neighboring state.

The following summarizes EPA's assessment of the modeling provided by TDEC for the four sources discussed in this section. TDEC's July 31, 2019, modeling for TVA-Cumberland and existing Round 3 DRR modeling for TVA-Allen show that maximum 1-hour modeled SO_2 concentrations at the distances to neighboring states' borders listed in Table 2 are below the level of the 2010 1-hour SO_2 NAAQS. The modeling results for TVA-Gallatin submitted with the Sumner County redesignation request show that maximum 1-hour modeled SO_2 concentration within the modeling domain is well below the level of the 2010 1-hour SO_2 NAAQS, and SO_2 concentrations are expected to continue to decline with distance. EPA has reviewed the modeling analyses provided in the July 31, 2019, SIP submission and proposes that TDEC's existing and supplemental modeling for TVA-Allen and TVA-Cumberland are adequate for assessing interstate transport of SO_2. Additionally, the modeling for TVA-Gallatin submitted with the Sumner County redesignation request and TDEC's supplemental modeling for Eastman Chemical, dated November 30, 2021, also provide support for this action.[41] Table 2 provides a summary of the modeling results for TVA-Allen, TVA-Cumberland, TVA-Gallatin, and Eastman Chemical.

[39] TVA-Gallatin was also subject to the DRR and thus, TDEC characterized TVA-Gallatin as a Round 3 DRR source in its July 31, 2019, SIP submission. TVA-Gallatin chose modeling for its pathway to satisfy the DRR requirements.

[40] The modeling used the most current version of AERMOD that was available at the time the modeling was conducted, version 19191, with the most recent three years of actual SO_2 emissions from the TVA-Gallatin facility (2017–2019) and concurrent meteorology data from 2017–2019.

[41] As noted in footnote 31, EPA is opting not to rely on the modeling TDEC included in the July 31, 2019, SIP submission for Eastman Chemical or for TVA-Gallatin for this action because Tennessee provided more recent modeling.

TABLE 2—SO_2 MODELING FOR TENNESSEE SOURCES TVA-ALLEN, TVA-CUMBERLAND, TVA-GALLATIN, AND EASTMAN CHEMICAL

Source	County in Tennessee	Approximate distance from source to adjacent state (km)	Other facilities included in modeling?	Modeled 99th percentile daily maximum 1-hour SO_2 concentration at or beyond the state border (ppb)	Model grid extends into another state?
TVA-Allen [42]	Shelby	3.5 (AR), 9.0 (MS).	Yes—Nucor Steel Memphis facility.	38.2 (AR), 31.3 (MS) *(based on 2012–2014 actual emissions)*.	Yes—Southeastern portions of Crittenden County in AR; and small northern portion of DeSoto County, MS.
TVA-Cumberland [43].	Stewart	27 (KY) [44]	No	19.7 (KY), *(based on 2012–2014 actual emissions)*.	Yes—KY (portions of Christian and Trigg Counties).
TVA-Gallatin	Sumner	37 (KY)	No	23.1 (TN) [45] *(based on 2017–2019 actual emissions)*.	No.
Eastman Chemical.	Sullivan	8 (VA), 50 (NC), 50 (KY).	Yes—Domtar Paper	9.1 (KY), 7.5 (NC), 59.4 (VA), *(based on allowable emissions)*.	Yes—NC (portion of Mitchell County), VA (portions of Bristol, Washington, Russell, Scott, Norton, Wise, and Lee Counties).

EPA also evaluated existing, valid modeling available for sources in other states which are located within 50 km of Tennessee to assess whether there are emissions from sources in neighboring states to which emissions from sources in Tennessee may interact and contribute to an air quality problem in the neighboring state. (The sources in Tennessee that may be relevant to this analysis are not necessarily the same four sources identified in Table 2.) Table 3 provides a summary of the modeling for the SO_2 sources in neighboring states modeled in Rounds 2 and 3 of 2010 1-hour SO_2 NAAQS designations (*i.e.,* modeling EPA determined was adequate for purposes of informing designations) which are located within 50 km of Tennessee: Plum Point in Arkansas and Sikeston in Missouri. The modeling results in Table 3 show that the maximum 1-hour modeled SO_2 concentrations for Plum Point and Sikeston are below the level of the 2010 1-hour SO_2 NAAQS.

TABLE 3—OTHER STATES' SOURCES WITH SO_2 MODELING LOCATED WITHIN 50 km OF TENNESSEE

Source	County (state)	Approximate distance from source to Tennessee border (km)	Other facilities included in modeling?	Modeled 99th percentile daily maximum 1-hour SO_2 concentration (ppb)	Model grid extends into another state?
Plum Point	Mississippi (AR).	<5 [1]	No	14.9 *(based on PTE)*	Yes—into TN (portions of Lauderdale and Tipton Counties).
Sikeston	Scott (MO)	44	Yes—AECI New Madrid Plant, Buzzi Unicem Cape Girardeau, Havco Wood Products, Noranda Aluminum, Inc.—New Madrid,[2] Q.C. Corporation.	37.2 (*based on 2012–2014 actual emissions for all facilities except for Noranda Aluminum, Inc.—New Madrid [2] which used allowable emissions*).	No.

[1] Plum Point is 2.5 km to the Tennessee border according to TDEC's July 31, 2019, SIP submission.
[2] Noranda Aluminum, Inc.—New Madrid shut down in March of 2016. The facility reopened in 2018 under a new owner, Magnitude 7 Metals.

Since the modeling results for Plum Point and Sikeston do not demonstrate an air quality problem in these areas as it pertains to the 2010 SO_2 NAAQS, EPA does not believe sources in Tennessee are contributing to nonattainment in the neighboring states near these emissions sources.

The following DRR sources in Alabama, Kentucky, Missouri, North Carolina, and Virginia located within 50 km of the Tennessee border were not

[42] The values of 31.3 ppb (MS) and 38.2 ppb (AR) reflect the modeling summary for TVA-Allen shown in Table 24 on p. 23 from TDEC's July 31, 2019, SIP submission. In Round 3 designations, the modeled maximum 1-hour SO_2 impact of TVA-Allen was 66 ppb. *See* EPA's *Technical Support Document, Chapter 38: Intended Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee,* at *https://www.epa.gov/sites/production/files/2017-08/documents/39_tn_so2_rd3-final.pdf.*

[43] The value of 19.7 ppb reflects the modeling data for TVA-Cumberland shown in Table 19 on p.29 from TDEC's July 31, 2019, SIP submission. In Round 3 of designations, the modeled maximum 1-hour SO_2 impact from TVA-Cumberland was 46.5 ppb. *See* pp.72–73 of EPA's *Technical Support Document, Chapter 38: Intended Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee,* at *https://www.epa.gov/sites/production/files/2017-08/documents/39_tn_so2_rd3-final.pdf.*

[44] In Round 3, EPA stated the approximate distance from TVA-Cumberland as 28 km south of the Kentucky border. *See* p. 75 of EPA's *Technical Support Document, Chapter 38: Intended Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Tennessee,* at *https://www.epa.gov/sites/production/files/2017-08/documents/39_tn_so2_rd3-final.pdf.*

[45] This value for the TVA-Gallatin modeling is the maximum concentration in the modeling domain, which is solely within Tennessee.

modeled or had modeling that resulted in an unclassifiable designation: Alabama's DRR source, TVA—Widows Creek Fossil Plant, located approximately 13 km from the Tennessee border, permanently shut down and therefore no modeling was done under the DRR. Alabama's DRR source, TVA—Colbert Fossil Plant, located approximately 28 km from the Tennessee border, accepted federally enforceable permit limits to exempt out of the DRR requirements. For Alabama's DRR source, Ascend, in Morgan County, Alabama, located approximately 39 km from the Tennessee border, EPA previously determined, in Round 3 SO_2 designations, that the Agency did not have sufficient information to demonstrate whether the area around Ascend meets the 2010 1-hour SO_2 NAAQS or contributes to an area that does not meet the standard, and thus designated the Morgan County area in Alabama as unclassifiable in Round 3. For Kentucky's source, John S. Cooper Power Station (Cooper) in Pulaski County, Kentucky, located approximately 43 km from the Tennessee border, EPA previously determined, in Round 2 SO_2 designations, that the Agency did not have sufficient information to demonstrate whether the area around Cooper meets the 2010 1-hour SO_2 NAAQS or contributes to an area that does not meet the standard, and thus designated the Pulaski County area in Kentucky as unclassifiable in Round 2. Missouri's DRR sources, Associated Electric Cooperative, Inc. New Madrid Power Plant (AECI—New Madrid), and Magnitude 7 Metals (formerly Noranda Aluminum Inc.—New Madrid), both located approximately less than 5 km from the Tennessee border, opted to monitor to satisfy the DRR. North Carolina's DRR sources, Duke Energy Progress—Steam Electric Plant, and Blue Ridge Paper Products (Evergreen Packaging Group)—Canton Mill (Evergreen), located approximately 51 and 28 km, respectively, from the Tennessee border, opted to monitor to satisfy the DRR and were designated in Round 4. Virginia's DRR source, American Electric Power-Clinch River Plant, located approximately 36 km from the Tennessee border, accepted federally enforceable permit limits to exempt out of the DRR requirements.[46] *See* Docket ID No. EPA–HQ–OAR–2017–0003.

As explained in the above paragraph, two DRR sources in other states located within 50 km of Tennessee conducted SO_2 designation modeling; however, EPA previously determined this modeling was insufficient to designate areas for the 2010 1-hour SO_2 NAAQS. Although EPA does not have any indications that there are violations in the areas around these two sources—Ascend[47] in Morgan County, Alabama, and Cooper[48] in Pulaski County, Kentucky—EPA assesses the SO_2 emissions from these sources in section III.C.2.b. of this notice with respect to interstate transport from Tennessee for the 2010 1-hour SO_2 NAAQS. Ascend and Cooper are located approximately 39 and 43 km, respectively, from the Tennessee border.

EPA proposes that the modeling results for the sources with valid modeling (summarized in Tables 2 and 3), weighed along with the other factors in this notice, support EPA's proposed conclusion that sources in Tennessee will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in any other state.

2. SO_2 Emissions Analysis

(a) State Submission

TDEC provided statewide SO_2 emissions inventories for 2005, 2008, 2011, 2014, and 2017[49] from the NEI by source category (*i.e.,* point, area, on-road mobile, nonroad mobile, and event (fires)), as shown in Table 4. TDEC states that the data shows substantial declines in the point source, on-road mobile, and nonroad mobile SO_2 emissions from 2005 to 2014.

TABLE 4—TENNESSEE'S NEI SO_2 EMISSIONS FOR 2005, 2008, 2011, 2014, 2017

Year	Point	Area	Mobile on-road	Mobile nonroad	Event	Year totals
2005	288,256.16	4,578.11	4,833.88	3,890.82	[1] 60.01	301,618.99
2008	258,046.16	[2] 65,175.82	877.69	590.73	1,210.11	325,900.52
2011	155,988.36	2,320.98	769.02	85.61	1,158.75	160,322.73
2014	90,283.03	1,441.94	711.10	61.88	1,702.74	94,200.68
2017 (July 31, 2019, Submission) [3]	40,569.61	[4] N/A	[4] N/A	[4] N/A	[5] None	[4] N/A

[1] The 2005 fires source category is comprised of only wildfires and no prescribed fires.

[2] With respect to the 2008 area source emissions, TDEC identifies the following factors that could have influenced the reported increase from 2005 to 2008: (1) in 2008, wildfires in east Tennessee occurred; (2) the reporting requirements for area sources changed in 2008 and EPA made adjustments to states' inventories; (3) EPA released version 3 of the NEI to replace version 2; and (4) Source Classification Codes were discontinued after the 2008 year and that could have affected the emission factors and growth rates. With respect to the change in reporting requirements noted by TDEC, those reporting requirements changed in December of 2008. *See* 73 FR 76539 (December 17, 2008).

[3] The 2017 point source emissions data in TDEC's July 31, 2019, SIP submission reflects the data available at the time. See Table 5, below, for 2017 NEI data.

[4] "N/A" means "Not Available" as presented in TDEC's July 31, 2019, SIP submission. Since the time of this submission, 2017 emissions data has become available for the Area and Mobile Sources (On-Road and Nonroad) Categories. See Table 5, below, for 2017 NEI data.

[5] The 2017 NEI EVENT source category has no data for wildfires or prescribed fires at the time of SIP development for TDEC's July 31, 2019, SIP submission. Since the time of this submission, 2017 data has become available for this source category. See Table 5, below, for 2017 NEI data.

[46] Each of the sources listed in this paragraph are covered in further detail in this notice except TVA -Widows Creek (AL), which has permanently shut down, and TVA-Colbert (AL) and American Electric Power-Clinch River Plant (VA), which both adopted enforceable limits. Additionally, TVA-Colbert reported 2020 emissions of 1.743 tpy and 2021 emissions of 4.4 tpy, and American Electric Power-Clinch River reported emissions of 79.7 tpy in 2020 and 43.467 tpy in 2021.

[47] *See* EPA's initial and final TSDs for Alabama, at *https://www.epa.gov/sites/production/files/2017-08/documents/3_al_so2_rd3-final.pdf* and *https://www.epa.gov/sites/production/files/2017-12/documents/03-al-so2-rd3-final.pdf.*

[48] Cooper is also considered a DRR source since it met the 2,000 tpy threshold for inclusion in the DRR. The source chose a federally enforceable emission limit to exempt out of the DRR requirements. However, EPA had already designated the area as unclassifiable in Round 2.

[49] For 2017, TDEC provided point source emissions only. This data was preliminary at the time of Tennessee's July 31, 2019, SIP submission, as EPA had not yet released the final 2017 NEI, which was released in April 2020.

(b) EPA Analysis

EPA reviewed the statewide emissions data provided by TDEC and also evaluated SO_2 emissions data from 1990 to 2017 for Tennessee to examine any trends in SO_2 emissions over this period. Statewide SO_2 emissions decreased from approximately 1,058,622 tons in 1990 to 46,737.72 tons in 2017.[50] EPA supplemented the NEI emissions trends that TDEC included in the July 31, 2019, SIP submission when the 2017 NEI was finalized and made publicly available in January 2021, and all the source categories are now available. See Table 5, below.

TABLE 5—TENNESSEE'S NEI SO_2 EMISSIONS FOR 2017

[2017 NEI January 2021 version]

Year	Point	Area	Mobile on-road	Mobile nonroad	Event	Year totals
2017 NEI (January 2021 version)	41,191.44	3,185.61	678.34	40.68	1,641.64	46,737.72

In addition to reviewing SO_2 emissions trends in Tennessee, as discussed in section III.B, EPA also finds that it is appropriate to examine the impacts of SO_2 emissions from stationary sources emitting greater than 100 tons of SO_2 in Tennessee at distances ranging from zero km to 50 km from a neighboring state's border. Therefore, in addition to those sources addressed in section III.C.1.b. of this notice, EPA also assessed the potential impacts of SO_2 emissions from stationary sources not subject to the DRR that emitted more than 100 tons of SO_2 in 2019 and are located in Tennessee within 50 km of the border. EPA assessed this information to evaluate trends in area-wide air quality and to evaluate whether the SO_2 emissions from these sources could interact with SO_2 emissions from the nearest source in a neighboring state in such a way as to significantly contribute to nonattainment of the 2010 1-hour SO_2 NAAQS in that state. Table 6 lists the 10 sources in Tennessee not subject to the DRR that emitted greater than 100 tpy of SO_2 in 2019 and are located within 50 km of the State's border. EPA focused on identifying the nearest non-DRR sources to the Tennessee sources as the DRR sources are covered under other pathways like modeling, monitoring, or taking an enforceable limit. EPA did look to see if a DRR source was the nearest SO_2 source in a neighboring state and found that in some instances, a DRR source was a closer SO_2 source. The shortest distance between a Tennessee source and the nearest neighboring DRR source was approximately 77 km. Additionally, the two nearest DRR sources identified were TVA Paradise in Kentucky, which was modeled using allowable emissions limits, and Blue Ridge Paper, which was characterized by monitoring and later had modeling which showed attainment. Both of these sources are adequately characterized through the DRR process, and because they are greater than 50 km from any of the Tennessee sources listed in Table 6, EPA does not anticipate a transport problem/interaction.

TABLE 6—TENNESSEE NON-DRR SO_2 SOURCES EMITTING GREATER THAN 100 TPY NEAR NEIGHBORING STATES

Tennessee source [1]	2021 annual SO_2 emissions (tpy)	Approximate distance to Tennessee border (km)	Closest neighboring state	Approximate distance to nearest neighboring state SO_2 source (km)	Nearest neighboring state non-DRR SO_2 source (>100 tons SO_2) & 2021 emissions (tpy)
Florim USA, Inc	[5] 153.8	<5 (KY)	Kentucky	109	CC Metals and Alloys LLC (348.7).[5]
Nyrstar Clarksville, Inc	377.9	14 (KY)	Kentucky	103	CC Metals and Alloys LLC (348.7).[5]
Nucor Steel Memphis, Inc	[5] 176.9	<5 (AR), <5 (MS)	Arkansas	51	Roxul USA Inc. (139.6).
Tate & Lyle, Ingredients Americas LLC	154.4	45 (NC)	North Carolina	153	Tennessee Alloys Company [2] (639.6).
Packaging Corporation of America	228.9	<5 (MS)	Mississippi	27	Mississippi Silicon (503.7).[5]
AGC Industries—Greenland Plant	[5] 421.6	11 (VA)	Virginia	126	SGL Carbon LLC (54.6).[3]
BAE SYSTEMS Ordnance Systems Inc. Holston Army Ammunition Plant (Holston) [4].	1,052.9	<5 (VA)	Virginia	122	Eastman Chemical (3541.9).
Resolute Forest Products—Calhoun Operations.	328.8	34 (GA), 43 (NC)	Georgia	95	Tennessee Alloys Company [1] (639.6).
Lucite International Inc	[5] 313.1	9 (AR), 30 (MS)	Arkansas	46	Roxul USA Inc (139.6).[6]
Memphis International	115.7	<5 (MS)	Mississippi	34	Roxul USA Inc (139.6).

[1] Eastman is also a non-DRR source that could have been classified in Table 6; however, the facility is discussed in greater detail below in Section III.3.b.
[2] Tennessee Alloys Company is in Alabama.
[3] SGL Carbon LLC is in North Carolina.
[4] See below for a more detailed discussion on BAE SYSTEMS Ordnance Systems Inc. Holston Army Ammunition Plant (Holston).
[5] Sources have not reported annual 2021 SO_2 emissions at the time of publication. The values reported for this source are from 2020.
[6] Roxul USA Inc is in Mississippi.

EPA does not have monitoring or modeling data suggesting that any of the states of Arkansas, Georgia, Kentucky, Mississippi, North Carolina, or Virginia are impacted by SO_2 emissions from the Tennessee sources listed in Table 6. Of these 10 sources, three are located at or less than 50 km from the nearest source in another state: Packaging Corporation of America, Lucite International Inc., and Memphis International. As shown in Table 6, the nearest sources in neighboring states to these three Tennessee sources are Mississippi Silicon and Roxul USA Inc., which

[50] State annual emissions trends for criteria pollutants of Tier 1 emission source categories from 1990 to 2017 are available at: *https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data.*

emitted 647.8 tons and 102.9 tons of SO_2 in 2019, respectively. EPA proposes that the relatively low SO_2 emissions of the three Tennessee sources, combined with the SO_2 emissions from the nearest neighboring states' sources shown in Table 6, make it unlikely that the SO_2 emissions from these Tennessee sources could interact with SO_2 emissions from the out-of-state sources in such a way as to contribute significantly to nonattainment in any other state.

Of the 10 Tennessee sources in Table 6, seven are located over 50 km from the nearest source in another state (*i.e.,* Arkansas, Georgia, Kentucky, North Carolina, and Virginia) emitting over 100 tons of SO_2. EPA proposes that the fact that the distances between sources are greater than 50 km, combined with the level of SO_2 emissions from these Tennessee sources and the nearest sources emitting greater than 100 tons of SO_2 in the neighboring states, makes it unlikely that SO_2 emissions from these seven sources could interact with SO_2 emissions from the out-of-state sources in such a way as to contribute significantly to nonattainment in those other states.

One of these seven sources is the Holston military facility, located in Hawkins County, Tennessee, less than 5 km from the Tennessee-Virginia border. Holston has achieved a 31 percent reduction in emissions from the years 2017 to 2020 due to the changes at the facility. Holston emitted 1,767.6 tpy SO_2 in 2017, 1,621.1 tpy SO_2 in 2018, and 1,389.2 tpy SO_2 in 2019. The nearest non-DRR SO_2 source emitting greater than 100 tpy in a nearby state is SGL Carbon LLC, located 122 km away in North Carolina. EPA further evaluated Holston due to the magnitude of the source's SO_2 emissions in 2019 and the proximity of the source to the Virginia border (less than 5 km) and its proximity to the Sullivan County nonattainment area.[51] In 2020, Holston's four coal-fired boilers emitted 1,224 tons of SO_2, or nearly all SO_2 emissions from this facility that year.[52] EPA received a letter dated November 1, 2021, which stated that the last remaining unit of the four, coal-fired boiler #2, had ceased operation and was last operated on October 4, 2021. Since this time, the Holston facility has been operated with new natural gas steam units.[53] EPA expects a large reduction in SO_2 emissions due to the fuel switch from burning coal to natural gas.[54] EPA proposes that it is unlikely that the SO_2 emissions from Holston alone or in combination with Eastman will contribute significantly to nonattainment in North Carolina based on the reduction of the source's SO_2 emissions from the conversion to natural gas.

EPA also reviewed the location of sources in neighboring states emitting more than 100 tpy of SO_2 and located within 50 km of the Tennessee border (see Table 7). This is because elevated levels of SO_2, to which SO_2 emitted in Tennessee may have a downwind impact, are most likely to be found near such sources. As with Table 6, EPA looked to see if a DRR source was the nearest SO_2 source in a neighboring state and found that for the sources in Table 7, the sources indicated are the nearest SO_2 source. There are no DRR sources that are closer than the sources indicated in the table.

TABLE 7—NEIGHBORING STATES' NON-DRR SO_2 SOURCES EMITTING GREATER THAN 100 TPY NEAR TENNESSEE [1]

Source [2]	2021 annual SO_2 emissions (tons)	Approximate distance to Tennessee border (km)	Approximate distance to nearest Tennessee SO_2 source (km)	Tennessee non-DRR SO_2 source (>100 tons SO_2) & 2021 emissions (tons)
Nucor-Yamato Steel Company (AR)	348.5	<5	73	Lucite International Inc. (313.1).
Nucor Steel Arkansas (AR)	110.3	<5	78	Lucite International Inc. (313.1).
Nucor Steel Decatur LLC (AL)	127.2	38	115	Packaging Corporation Of America (228.9).

[1] Table 7 does not include sources that are duplicative of those in Table 6.
[2] EPA also reviewed the emissions from DRR sources near the Tennessee border, however, the sources covered in this table are the closest sources regardless of being a DRR or non-DRR source.

As shown in Table 7, the shortest distance between any pair of these sources is 73 km. Therefore, given the localized range of potential 1-hour SO_2 impacts, and the level of emissions emitted at these sources, EPA proposes that it is unlikely that SO_2 emissions from the sources in Alabama and Arkansas could interact with SO_2 emissions from Tennessee's nearest non-DRR sources in such a way as to contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in Alabama and Arkansas.

In addition, EPA evaluated SO_2 emissions trends for Ascend in Alabama and Cooper in Kentucky, which are within 50 km of the Tennessee border and for which EPA could not rely on existing air dispersion modeling to assess their impacts for interstate transport for the 2010 1-hour SO_2 NAAQS on other states. Ascend is approximately 39 km from the Tennessee border. For Ascend, Table 8 shows that 2020 SO_2 emissions have significantly declined below 2012–2019 levels.[55] EPA also considered whether any changes in controls or operations had occurred at Ascend. According to emails from Alabama's Department of Environmental Management (ADEM) to EPA on June 6, 2019, and December 2,

[51] On May 31, 2018, BAE SYSTEMS Ordnance Systems, Inc. (BAE) submitted an application for a permit to construct and operate an expansion of an existing explosives manufacturing operation at the Holston Army Ammunition Plant Area B facility located in Hawkins County. The proposed expansion is a multi-phase project, and the current application covers the first phase only. Phase I will include four new natural gas and oil-fired boilers and operations for recrystallization, coating, and milling of explosives. Phase I will also include the retirement of four existing coal-fired boilers (units 37–0028–01, 37–0028–02, 37–0028–03, and 37–0028–04) upon startup of the new natural gas-fired steam generating boilers (37–0028–120, 37–0028–121, 37–0028–122, and 37–0028–123). On October 8, 2018, TDEC issued a PSD permit (Permit No. 974192) that includes a provision that the permittee must notify the State when boilers 37–0028–01, 02, 03, and 04 have ceased operation. This permit is available in the online docket for this action under Docket ID No. EPA–R04–OAR–2019–0535 at *http://www.regulations.gov.*

[52] Emissions data obtained using EPA's Emissions Inventory System at *eis.epa.gov.*

[53] See the November 2, 2021 email from TDEC to EPA Region 4 transmitting a letter from BAE regarding Notification of Ceased Operation for Boiler #2 at Holston Army Ammunition ''OSI HSAAP 37–0028–01 to-04 Notification of Ceased Operations.pdf'' located in the docket for this action.

[54] See ''974192-Final Determination.pdf'' in the docket for this action.

[55] See Tennessee's July 31, 2019, submittal for specific data on the Ascend facilities.

2019, Ascend had ceased operating Boiler #5 and anticipated the retirements of Boiler #6 in 2020, and Coker #1 and #2 in 2021.[56] However, EPA notes, as of November 30, 2021, that Boiler #5 and Coker #2 were removed from service in 2019 and 2021, respectively and Coker #1 and Boiler #6 are still authorized to operate under the facility's current Title V permit. EPA also evaluated data in EPA's Air Quality System (AQS) [57] from the SO_2 monitors in the surrounding area of Ascend. There are no monitors within 50 km of Ascend. The closest SO_2 monitor is located in Jefferson County, Alabama (AQS ID: 01–073–1003) and is approximately 128 km from Ascend. The 2020–2022 DV for this monitor is 6 ppb. The closest source in Tennessee to Ascend which emitted over 100 tpy of SO_2 in 2019 is Packaging Corp. of America, which is approximately 123 km away from Ascend and emitted 347.9 tons of SO_2 in 2019. The distance between Ascend and Packaging Corp. of America exceeds 50 km. EPA proposes that the distance between these two sources make it unlikely that SO_2 emissions from Ascend could interact with SO_2 emissions from Packaging Corp. of America in such a way as to contribute significantly to nonattainment in Alabama.

TABLE 8—ASCEND—SO_2 EMISSIONS TRENDS

[TPY]

Alabama source	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Ascend	2,182	2,595	2,839	2,594	2,179	1,628	1,436	1,020	100	771

EPA also evaluated SO_2 emissions trends for Kentucky's DRR source, Cooper, which is within 50 km of the Tennessee border (approximately 43 km) and for which EPA could not rely on existing Round 2 air dispersion modeling to assess its interstate transport impacts on other states for the 2010 1-hour SO_2 NAAQS. Available SO_2 emissions data from EPA's Air Markets Program Data (AMPD) indicates that emissions at Cooper have decreased since 2012 from 7,428 tons to 47 tons in 2020 as shown in Table 9.[58] The closest source in Tennessee to Cooper which emitted over 100 tpy of SO_2 in 2020 is TVA Bull Run Fossil Plant (Bull Run) in Clinton, Tennessee, which is approximately 116 km away from Cooper and emitted approximately 229 tons of SO_2 in 2020. EPA proposes that the distance between these two sources makes it unlikely that SO_2 emissions from Cooper could interact with SO_2 emissions from Bull Run in such a way as to contribute significantly to nonattainment in Kentucky.

TABLE 9—COOPER—SO_2 EMISSIONS TRENDS

[TPY]

Kentucky source	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cooper	7,428	4,604	4,324	1,804	320	110	148	81	47	165

EPA's analysis of SO_2 emissions trends information, the Tennessee sources in Table 6, neighboring states' sources in Table 7, and emissions trends data related to Ascend and Cooper in Tables 8 and 9 support its conclusion that sources in Tennessee will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in a nearby state.

3. SO_2 Ambient Air Quality

(a) State Submission

In its SIP submission, TDEC included a table providing 2015–2017 and 2016–2018 DVs and annual 99th percentile SO_2 concentrations for monitors in Tennessee and the surrounding states (Alabama, Arkansas, Georgia, Kentucky, Mississippi, Missouri, North Carolina, South Carolina, and Virginia).[59] TDEC states that all valid DVs in the attainment/unclassifiable areas for the 2010 1-hour SO_2 NAAQS in Tennessee and surrounding states are attaining the standard.

(b) EPA Analysis

EPA reviewed monitoring data for monitors in Tennessee within 50 km of another state and for monitors within 50 km of Tennessee in adjacent states using relevant data from EPA's AQS DV reports. The 2010 1-hour SO_2 standard is violated at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of the daily maximum 1-hour average concentrations exceeds 75 ppb, as determined in accordance with Appendix T of 40 CFR part 50. Of the six monitors in Tennessee located within 50 km of another state, EPA has summarized the DVs based on certified monitoring data in Tables 10 and 11. Table 10 provides DVs from the 2012–2014 to 2019–2021 DV periods for the Blount and Shelby County monitors. Table 11 shows the DVs from the four monitors located in the Sullivan County, Tennessee nonattainment area. The most recent certified 3-year DV period is 2020–2022.

[56] See supra footnote 33.

[57] EPA's AQS contains ambient air pollution data collected by EPA, state, local, and tribal air pollution control agencies. This data is available at *https://www.epa.gov/air-trends/air-quality-design-values.*

[58] This data is available at *https://ampd.epa.gov/ampd/*. EPA's AMPD is an application that provides both current and historical data collected as part of EPA's emissions trading programs.

[59] See Table 1 of Tennessee's July 31, 2019, SIP submission.

TABLE 10—1-HOUR SO_2 DVS (ppb) FOR AQS MONITORS IN TENNESSEE WITHIN 50 km OF ANOTHER STATE

County	AQS site code	2012–2014	2013–2015	2014–2016	2015–2017	2017–2018	2017–2019	2018–2020	2019–2021	2020–2022	Approximate distance to Tennessee border (km)
Blount	47–009–0101 ...	[1] ND	[1] ND	[1] ND	2	2	1	1	1	[1] ND	14
Shelby ...	47–157–0075 ...	9	9	8	7	6	4	2	2	2	17

[1] ND indicates that there is no valid DV due to monitor startup or shutdown (operated less than three years), data quality issues, or incomplete data.

As shown in Table 10, the DVs for the Blount County, Tennessee monitor from 2014–2016 to 2019–2021 and the DVs for the Shelby County, Tennessee monitor for 2012–2014 to 2020–2022 are well below the level of the 2010 1-hour SO_2 NAAQS.

(c) Analysis of Eastman Chemical in Sullivan County, Tennessee

There are four AQS monitors in Sullivan County: AQS ID 47–163–6001, 47–163–6002, 47–163–6003, and 47–163–6004. These monitors do not have valid DVs prior to 2017–2019 and are located within 50 km of the Tennessee border (*i.e.,* approximately 7, 9, 8, and 9 km, respectively, from the nearest interstate border, Tennessee-Virginia). Two of these monitors, AQS ID 47–163–6001 and 47–163–6002, have four sets of complete DVs (2017–2019 through 2020–2022) and the other two monitors, AQS ID 47–163–6003 and 47–163–6004, have two sets of complete DVs (2019–2021 through 2020–2022). As seen in Table 11, one of these monitors (AQS ID 47–163–6003) violated the NAAQS with a 2019–2021 DV of 87 ppb.[60] This monitor is located north of the Eastman Chemical facility, in the direction of the Virginia border. It is also 1.3 km upwind and in the same wind direction of an attaining monitor in the nonattainment area, AQS ID: 47–163–6001, indicating that concentrations are below the standard within Tennessee's border. However, with new, early certified 2022 data that was submitted to EPA in March 2023 and included in the docket of this proposed action, monitor AQS ID 47–163–6003 is attaining the primary SO_2 NAAQS with a DV of 71 ppb. In Table 11, a downward trend is also observed among all DVs at monitors within 50 km of Eastman Chemical.

TABLE 11—1-HOUR SO_2 DVS (ppb) FOR SULLIVAN COUNTY, TENNESSEE MONITORS WITHIN 50 km OF THE TENNESSEE BORDER

County (state)	Monitored source	AQS ID	2017–2019 DV	2018–2020 DV	2019–2021 DV	2020–2022 DV	Approximate distance to border (km)	Approximate distance from Eastman Chemical (km)
Sullivan County (TN)	Eastman Chemical	47–163–6001	79	63	49	41	7 (VA), 49 (NC), 52 [1] (KY) ...	2.5
Sullivan County (TN)	Eastman Chemical	47–163–6002	55	38	27	27	9 (VA), 47 (NC), 53 [1] (KY) ...	3.3
Sullivan County (TN)	Eastman Chemical	47–163–6003	[2] ND	[2] ND	87	71	8 (VA), 48 (NC), 51 [1] (KY) ...	1.2
Sullivan County (TN)	Eastman Chemical	47–163–6004	[2] ND	[2] ND	53	51	9 (VA), 47 (NC), 51 [1] (KY) ...	1.2

[1] These distances to the Kentucky border are estimated at just over 50 km and thus, are included for informational purposes.
[2] ND indicates that the monitors established in Sullivan County (AQS ID: 47–163–6003 and 47–163–6004) to measure SO_2 in the areas with modeled maximum concentrations around Eastman Chemical officially began collecting data for NAAQS comparison on January 1, 2019, and thus do not have a valid DV for 2019 and 2020.

Eastman Chemical is located in Sullivan County, Tennessee, approximately 8 km from the Virginia border and approximately 50 km from the borders of Kentucky and North Carolina. Given the decreasing gradient measured in the 2019–2021 DVs between the 47–163–6003 and 47–163–6001 monitors over 1.3 km, it may be the case that SO_2 emissions from the source would not contribute to nonattainment in Virginia, which is several more kilometers beyond the attaining monitor. Given that the physical properties of SO_2 result in relatively localized pollutant impacts, the decreasing gradient measured in the 2019–2021 DVs between the monitors over only 1.3 km indicates that it is unlikely that SO_2 emissions from the Eastman Chemical facility would contribute to nonattainment in the neighboring states that are 8 km–50 km from Eastman Chemical. However, considering the data in Table 11, EPA conducted further analysis, including an evaluation of design values, an assessment of new modeling provided by TDEC that uses Eastman Chemical's current allowable emissions limits contained in its Title V permits (see section III.C.1.b), and an assessment of both the current actual emissions scenario and likely future emissions scenario at Eastman Chemical to assess whether Eastman Chemical's SO_2 emissions could contribute significantly to nonattainment in Kentucky, North Carolina, or Virginia. This analysis is discussed in the following paragraphs.

In Round 1 of SO_2 designations, EPA designated as nonattainment the portion of Sullivan County contained in a 3-km radius circle centered at Eastman Chemical's B–253 powerhouse, which contained a single monitor that was violating the 2010 1-hour SO_2 NAAQS based on 2009–2011 air quality data. The SO_2 emissions at Eastman come from three main boiler groups, B–83, B–253, and B–325. Powerhouse B–253 includes five boilers (Boilers 25–29), each with an individual stack, that provide steam and electricity to the facility. Powerhouse B–325 includes two coal-fired boilers that vent to a single stack (Boiler 30 and Boiler 31). Boiler 30 is equipped with a spray dryer absorber and electrostatic precipitator to control particulate matter and acid gases. Boiler 31 is equipped with a spray dryer absorber and fabric filter to control particulate matter and acid

[60] See below in section III.A.3.c and III.D.2 for more analysis on the gradient decrease between 47–163–6003 and 47–163–6001 monitors.

gases. Powerhouse B–83 includes seven boilers; five coal-fired boilers (Boilers 18–22) and two coal-fired boilers (Boilers 23 and 24) that also burn hazardous wastewater treatment sludge, venting to a single stack.[61]

Since Round 1 of designations, Eastman Chemical has converted the five B–253 boilers (25–29) from burning coal to natural gas.[62] This conversion reduced the combined SO_2 emissions from these units by over 99.9 percent (from 14,897 tpy in 2011 to less than 10 tpy in 2019). This conversion took place incrementally from 2014–2018 as follows: Boiler 25 in March of 2014, Boiler 27 in June of 2016, Boiler 28 in December of 2016, Boiler 29 in June of 2018, and Boiler 26 in September of 2018. The emissions reductions at the B–253 boilers can be seen in Table 13, below. Total SO_2 emissions at the facility from all emissions units have decreased over this time period from 21,246 tpy in 2012 to 3,542 tpy in 2021, as seen in Table 13, below.

Additionally, Eastman Chemical installed temporary dry sorbent injection (DSI) controls[63] on the B–83 powerhouse Boilers 23 and 24 on June 1, 2019, which have further reduced SO_2 emissions, as shown in Table 13. The temporary DSI controls were installed as an interim measure to address the measured exceedances of the 1-hr SO_2 NAAQS in 2019, discussed above, and were operated in 2019–2021 by Eastman while design and installation of permanent DSI controls took place. EPA evaluated the effect of the temporary DSI controls by comparing the average hourly SO_2 emissions from Eastman's nine coal-fired boilers at B–83 (boilers 18–24) and B–325 (boilers 30 and 31) in 2019 prior to installation of the DSI controls (January 1, 2019, to May 31, 2019) with the average hourly emissions after installation of the controls (June 1, 2019, to December 31, 2019). The results of this evaluation show that the average hourly SO_2 emissions decreased from 1,338 pounds per hour (lb/hr) (January 1 to May 1) to 793 lb/hr (June 1 to December 31), which is approximately a 40 percent reduction in average hourly emissions. Eastman completed installation of permanent DSI controls at B–83 Boilers 23 and 24 in November 2021, and the controls became fully operational in January 2022 after performance testing. Tennessee continues to work with Eastman Chemical to consider additional SO_2 controls at the facility. The Andrew Johnson (AQS ID: 47–163–6003) and Happy Hill (AQS ID: 47–163–6004) ambient SO_2 monitors continued to measure exceedances of the 1-hour SO_2 NAAQS in 2020, 2021, and 2022, while the permanent DSI control system was under construction. However, as seen in Table 12 below, the number of NAAQS exceedances have decreased significantly at monitors near Eastman Chemical. The other two SO_2 monitors in the nonattainment area (Ross N. Robinson, AQS ID: 47–163–6001; Skyland Drive, AQS ID: 47–163–6002) did not measure any NAAQS exceedances during 2019–2022. Additional information and discussion about the current attainment status of the area, the NAAQS exceedances at these two monitors, and the controls and operational changes Eastman is pursuing to bring the area back into attainment with the 1-hour SO_2 NAAQS is provided in the TSD available in the docket for this proposed rule.

TABLE 12—EXCEEDANCES AT EASTMAN CHEMICAL

[Days]

Monitor	AQS ID	2019	2020	2021	2022	Total
Andrew Johnson	47–163–6003	18	3	4	0	25
Happy Hill	47–163–6004	2	1	2	2	7

TABLE 13—EASTMAN CHEMICAL—SO_2 EMISSIONS TRENDS

[TPY] [From EPA's EIS]

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
B–253–1 COAL FIRED BOILERS #25–29	14,171	14,195	12,034	10,638	7,765	4,779	2,367	6	6	7
B–325–1 COAL FIRED BOILERS #30 AND 31	1,363	1,435	1,330	1,306	1,348	1,340	1,371	1,346	1,276	1,208
B–83–1 COAL FIRED BOILERS #18–24	5,549	5,809	6,013	5,879	5,055	4,447	5,274	3,118	1,558	2,296
Total Emissions from all other Emissions Units	163	160	161	156	156	180	104	40	31	31
Eastman Chemical Total SO_2 Emissions	21,246	21,600	19,538	17,978	14,324	10,746	9,116	4,510	2,871	3,542

EPA also assessed the SO_2 sources in the neighboring states of Kentucky, North Carolina, and Virginia to determine whether there are large SO_2 emission sources within 50 km of the Tennessee border whose SO_2 emissions could interact with Eastman Chemical's SO_2 emissions in such a way as to contribute significantly to nonattainment in Kentucky, Virginia, or North Carolina. EPA identified only one source, located in Virginia, which is within 50 km of Eastman Chemical and has SO_2 emissions greater than 100 tpy based on 2017 NEI emissions data. EPA accessed more current SO_2 emissions for this Virginia source, Dominion—Virginia City Hybrid Energy Center, from EPA's AMPD.[64] The source emitted 95 tons of SO_2 in 2018 and 69 tons of SO_2 in 2019 and 2020. Based on this more recent data, EPA concludes there are no large SO_2 emission sources

[61] Prior to September 2021, the emissions from the seven coal-fired boilers in the B–83 powerhouse were exhausted through two stacks, one which served boilers 18–22 and another which served boilers 23 and 24. Due to structural deterioration, Eastman decommissioned the stack that served boilers 18–22 on September 10, 2021. Following the decommissioning of the stack, all emissions from Boilers 18–24 are now ducted to and emitted from the stack that previously only served Boilers 23 and 24.

[62] Eastman's conversion of the five B–253 boilers from coal to natural gas was required to meet Best Available Retrofit Technology (BART) requirements under the Federal Regional Haze Program. The conversion requirement is incorporated into Tennessee's regional haze SIP and into the facility's Title V permit. *See* 77 FR 70689 (November 27, 2012); Eastman Operating Permit No. 066116H.

[63] DSI is a control system that involves injection of a dry alkaline material such as a sodium or calcium-based sorbent (*i.e.,* a material that absorbs or adsorbs gases) either directly into a coal-fired boiler or into ducting downstream of where coal is combusted and exhaust (flue) gas that reacts with acid gas pollutants (*e.g.,* SO_2) to form a dry waste product which is then collected through a particulate filtration device.

[64] This data is available at *https://ampd.epa.gov/ampd/.*

in neighboring states within 50 km of Eastman Chemical.

(d) EPA Analysis Continued—Monitors Outside of Tennessee

No sources in Tennessee elected to establish monitors to characterize the air quality around specific sources subject to EPA's DRR for the 2010 1-hour SO_2 NAAQS in lieu of modeling. There are four DRR monitors located in other states within 50 km of the Tennessee border. These four monitors, which are in Missouri and North Carolina, do not have valid DVs prior to the 2017–2019 DV time period. Thus, EPA identified in Table 14 the 2017–2019 DVs, 2018–2020 DVs, and 2019–2021 DVs, along with the distance between each source and the border of Tennessee.

TABLE 14—SO_2 DESIGN VALUE CONCENTRATIONS (ppb) FOR ROUND 4 DRR MONITORS IN SURROUNDING STATES WITHIN 50 km OF THE TENNESSEE BORDER

County (state)	Round 4 monitored source	AQS ID	2017–2019 design value	2018–2020 design value	2019–2021 design value	Approximate distance to Tennessee border (km)
New Madrid County (MO) ...	Magnitude 7 Metals[1]	29–143–9001	202	320	376	3
New Madrid County (MO) ...	Magnitude 7 Metals[1]	29–143–9002	268	361	333	3
New Madrid County (MO) ...	Magnitude 7 Metals[1]	29–143–9003	47	68	83	4
Haywood County (NC)	Blue Ridge Paper Products, LLC (BRPP).	37–087–0013	152	90	36	30

[1] Noranda Aluminum, Inc.—New Madrid shut down in March of 2016. The facility reopened in 2018 under a new owner, Magnitude 7 Metals.

EPA evaluated the 2017–2019, 2018–2020, and 2019–2021 DVs at the four DRR monitors in Table 14. The New Madrid County, Missouri, monitor (AQS ID: 29–143–9001) has a 2017–2019 DV of 202 ppb, a 2018–2020 DV of 320 ppb, and a 2019–2021 DV of 376 ppb, all of which violate the 2010 1-hour SO_2 NAAQS. The New Madrid County, Missouri, monitor (AQS ID: 29–143–9002) has a 2017–2019 DV of 268 ppb, a 2018–2020 DV of 361 ppb, and a 2019–2021 DV of 333 ppb, all of which violate the 2010 1-hour SO_2 NAAQS. The New Madrid County, Missouri, monitor (AQS ID: 29–143–9003) has a 2017–2019 DV of 47 ppb and 2018–2020 DV of 68, both of which are below the level of the 2010 1-hour SO_2 NAAQS; however, the 2019–2021 DV of 83 ppb violates the 2010 1-hour SO_2 NAAQS. Regarding the violating DVs at the three New Madrid County, Missouri, monitors in Table 14, EPA notes that there are no SO_2 emission sources in Tennessee emitting over 100 tpy within 50 km of these monitors based on 2019 data. The nearest SO_2 source in Tennessee that emitted over 100 tons of SO_2 in 2019 is located approximately 114 km away from the Missouri monitors in Table 14, which is well beyond the 50-km transport distance threshold discussed in Section II.[65] EPA notes a portion of New Madrid County surrounding the three New Madrid SO_2 monitors, Magnitude 7 Metals and Associated Electric Cooperative, Inc., New Madrid Power Plant was designated nonattainment for the SO_2 1-hour standard in Round 4 designations.[66]

The Haywood County, North Carolina, monitor has a 2017–2019 DV of 152 ppb, a 2018–2020 DV of 90 ppb, and a 2019–2021 DV of 36 ppb. While both the 2017–2019 and 2018–2020 DVs violate the 2010 1-hour SO_2 NAAQS, the 2019–2021 DV of 36 ppb is below the 2010 1-hour SO_2 NAAQS.[67] EPA notes that there are no SO_2 emission sources in Tennessee emitting over 100 tpy within 50 km of the Haywood County, North Carolina, monitor. The nearest source in Tennessee that emitted over 100 tons of SO_2 in 2019 is located approximately 103 km away from the Haywood County, North Carolina, monitor, which is well beyond the 50-km transport distance threshold discussed in Section II.[68]

After careful review of the State's assessment and all available monitoring data and related source information, EPA proposes that the AQS monitoring data assessed and the lack of any sources emitting over 100 tons of SO_2 in 2019 in Tennessee within 50 km of adjacent states' monitors with 2017–2019, 2018–2020, and 2019–2021 DVs that violated the 2010 1-hour SO_2 NAAQS support EPA's proposed conclusion that Tennessee will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in the neighboring states.

4. SIP-Approved Regulations Addressing SO_2 Emissions

(a) State Submission

Tennessee's July 31, 2019, SIP submission identifies SIP-approved measures which help ensure that SO_2 emissions in the State will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in any other state. TDEC states that Tennessee Comprehensive Rules and Regulations (TCRR) 1200–03–09.–01, *Construction Permits,* regulates the construction of new sources and modification of existing sources, and it highlights section .01(1)(e), which prohibits TDEC from issuing a construction permit to construct or modify an air contaminant source[69] if the construction or modification would, among other things, interfere with attainment or maintenance of a NAAQS in a neighboring state. In addition, TDEC also states that TCRR 1200–03–06.–03, *General Non-Process Gaseous Emissions,* and 1200–03–07.–07, *General Provisions and Applicability for Process Gaseous Emissions Standards,*

[65] This Tennessee source, Owens Corning Composite Materials, LLC (EIS ID: 3100911), emitted 106.6 tons of SO_2 in 2019.

[66] *See* 86 FR 16055 (March 26, 2021).

[67] EPA designated Beaverdam Township in Haywood County as attainment/unclassifiable in Round 4 designations based on modeling of permanent and federally enforceable SO_2 emission limits for the Blue Ridge Paper Products facility, which provided for attainment of the 1-hour standard. *See* 86 FR 16055. For additional information about round 4 designations for Beaverdam Township in Haywood County, NC see *https://www.epa.gov/sulfur-dioxide-designations/epa-completes-fourth-round-sulfur-dioxide-designations* including the final technical support document for North Carolina *https://www.epa.gov/sites/default/files/2020-12/documents/07-nc-rd4_final_so2_designations_tsd.pdf* and the EPA's November 24, 2020, final rule approving North Carolina's, source-specific SIP submittal to make Blue Ridge's modeled SO_2 emission limits permanent. *See* 85 FR 74884.

[68] This Tennessee source, Cemex Construction Materials Atlantic, LLC—Knoxville Plant (EIS ID: 4979911), emitted 138.5 tons of SO_2 in 2019.

[69] ''Air Contaminant Source'' is defined at TCRR 1200–03–02.–01(1)(b) as ''any and all sources of emission of air contaminants, whether privately or publicly owned or operated.''

regulate gaseous emissions from non-process and process emission sources, respectively. Further, TDEC notes that TCRR 1200–03–13.–01, *Violation Statement,* provides for enforcement action for any failure to comply with Tennessee's air regulations.

(b) EPA Analysis

As part of EPA's weight of evidence approach to evaluating 2010 SO_2 transport SIPs, EPA considered Tennessee's SIP-approved measures summarized in III.C.4.a. of this notice that address SO_2 emissions sources in the State. As noted in TDEC's SIP revision, the State has a SIP-approved permitting rule—TCRR 1200–03–09–.01—that applies to major and minor sources generally and prohibits TDEC from issuing a construction permit to construct or modify an air contaminant source if the construction or modification would interfere with attainment or maintenance of a NAAQS in a neighboring state. The State also has SIP-approved major new source review (NSR) rules at TCRR 1200–03–09–.01(4) and –.01(5) covering PSD and nonattainment new source review (NNSR) permitting, respectively. PSD applies to the construction of any new major stationary source or any major modification at an existing major stationary source in an area designated as attainment or unclassifiable or not yet designated, and NNSR applies in nonattainment areas. Tennessee's SIP-approved permitting rules may help in ensuring that SO_2 emissions due to construction or modification of major and minor sources in Tennessee will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in neighboring states. However, without more information regarding the application of the interstate-transport analysis within the state's permitting process, EPA cannot form a conclusive position whether this is sufficient for approvability of the state's good neighbor SIP submittal evaluated here as to new or modifying sources. Further, new source permitting requirements do not address emissions from existing emissions units. Nonetheless, the EPA finds based on other information as discussed in this proposal that Tennessee's SIP submission can be approved.

EPA preliminarily agrees that SIP-approved regulation, TCRR 1200–3–13–.01, *Violation Statement,* provides TDEC with authority for enforcement of SO_2 emission limits and control measures. This rule states that, ''Failure to comply with any of the provisions of these [air] regulations shall constitute a violation thereof and shall subject the person or persons responsible therefore to any and all the penalties provided by law.''

5. Federal Regulations Addressing SO_2 Emissions in Tennessee

(a) State Submission

TDEC identified EPA programs which, either directly or indirectly, have significantly reduced SO_2 emissions in Tennessee. These programs include: the Acid Rain Program under title IV of the CAA; the Cross-State Air Pollution Rule (CSAPR) SO_2 Group 1 Trading Program; Heavy-Duty Diesel Rule; Mercury and Air Toxic Standards Rule (MATS);[70] New Source Performance Standards (NSPS); Nonroad Diesel Rule; and EPA's Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements Rule.[71]

(b) EPA Analysis

EPA is proposing to find that the Federal control measures identified in section III.C.5.a of this notice have helped to reduce SO_2 emissions from various sources in the State. EPA's Acid Rain Program set a permanent cap on the total amount of SO_2 that may be emitted by EGUs in the contiguous United States.[72] CSAPR required significant reductions in SO_2 emissions from power plants in the eastern half of the United States.[73] MATS required reductions of emissions of heavy metals which, as a co-benefit, reduced emissions of SO_2, and establishes alternative numeric emission standards, including SO_2 (as an alternate to hydrochloric acid).[74] EPA's Nonroad Diesel Rule will reduce sulfur levels from about 3,000 parts per million (ppm) to 15 ppm when fully implemented.[75] EPA's Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements (Heavy-Duty Diesel Rule) required refiners to start producing diesel fuel for use in highway vehicles with a sulfur content of no more than 15 ppm as of June 1, 2006.[76] NSPS for various source categories, including but not limited to Industrial-Commercial-Institutional Steam Generating Units;[77] Sulfuric Acid Plants;[78] Stationary Gas and Combustion Turbines;[79] Portland Cement Manufacturing;[80] Electric Utility Steam Generating Units (Boilers);[81] and Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011,[82] establish standards which reduce SO_2 emissions.

In addition to the rules listed in section III.C.5.a of this notice, EPA's Tier 3 Motor Vehicle Emission and Fuel Standards Rule[83] also reduces SO_2 emissions by establishing gasoline sulfur standards that reduce SO_2 emissions from certain types of mobile sources. EPA proposes that these Federal measures taken together have lowered and/or will continue to lower SO_2 emissions, and so are expected to continue to support EPA's proposed conclusion that SO_2 emissions from Tennessee will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in another state.

6. Conclusion

EPA proposes to determine that Tennessee's July 31, 2019, SIP submission, as supplemented on November 30, 2021, by the revised modeling for Eastman Chemical, satisfies the requirements of prong 1 of CAA section 110(a)(2)(D)(i)(I). EPA's evaluation of Prong 2 of the good neighbor provision—Interference with Maintenance of the NAAQS—follows and requires state plans to prohibit emissions that will interfere with maintenance of a NAAQS in another state.

D. EPA's Prong 2 Evaluation: Interference With Maintenance of the NAAQS

1. State Submission

In its July 31, 2019, SIP submission, TDEC relied upon the information provided for prong 1 to demonstrate that emissions within Tennessee will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in any neighboring state, including: attaining DVs for the

[70] *See* 77 FR 9304 (February 16, 2012).

[71] *https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-new-motor-vehicles-tier.*

[72] *See* 40 CFR parts 72 through 78.

[73] *See* 40 CFR part 97.610(a)(13). *See also* 76 FR 48208 (August 8, 2011).

[74] *See* 40 CFR parts 60 and 63. *See also* 77 FR 9304.

[75] *See* 40 CFR parts 9, 69, 80, 86, 89, 94, 1039, 1048, 1051, 1065, and 1068. *See also* 69 FR 38958 (June 29, 2004).

[76] *See* 40 CFR parts 69, 80, and 86. *See also* 66 FR 5002 (January 18, 2001).

[77] *See* 40 CFR part 60, subpart Da and 40 CFR part 63. *See also* 77 FR 9304.

[78] *See* 40 CFR part 60, subparts A, D, E, F, G and H. *See also* 36 FR 24876 (December 23, 1971).

[79] *See* 40 CFR part 60, subparts GG and KKKK. *See also* 71 FR 38482 (July 6, 2006) and 44 FR 52792 (September 10, 1979).

[80] *See* 40 CFR parts 60 and 63. *See also* 75 FR 54970 (September 9, 2010).

[81] *See* 40 CFR part 60, subpart Da and 40 CFR part 63. *See also* 77 FR 9304.

[82] *See* 40 CFR part 60, subpart LLL. *See also* 77 FR 49490 (August 16, 2012).

[83] *See* 40 CFR parts 79, 80, 85, 86, 600, 1036, 1037, 1039, 1042, 1048, 1054, 1065, and 1066. *See also* 79 FR 23414 (April 28, 2014).

2016–2018 period; SO_2 emission reductions trends from 2005–2014 from the NEI; DRR modeling for large SO_2 sources within 50 km of the State border; and supplemental modeling analyses out to 50 km for TVA-Gallatin and Eastman Chemical, which tend to show that the areas of other states closest to these sources are not exceeding the level of the 2010 1-hour SO_2 NAAQS. Also, TDEC indicates that there are no monitors located in the nine surrounding states, or Tennessee, that are violating the 2010 1-hour SO_2 NAAQS based on valid and complete data for the 2016–2018 monitoring period, which TDEC believes is evidence that Tennessee is not interfering with any maintenance efforts by neighboring states for this monitoring period. Finally, as discussed in sections III.C.4 and III.C.5, TDEC cited SIP-approved and Federal measures which address SO_2 emissions in Tennessee.

2. EPA Analysis

In *North Carolina* v. *EPA,* the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) explained that the regulating authority must give prong 2 of the CAA's interstate transport provision ''independent significance'' from prong 1 by evaluating the impact of upwind state emissions on downwind areas that, even if currently in attainment, are at risk of future nonattainment. *North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008). EPA interprets prong 2 to require an evaluation of the potential impact of a state's emissions on areas that are currently measuring clean data, but that may have issues maintaining that air quality. Therefore, in addition to the analysis presented by Tennessee, EPA has also reviewed additional information on SO_2 air quality and emission trends to evaluate the State's conclusion that Tennessee will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in downwind states. This evaluation builds on the analysis regarding significant contribution to nonattainment (prong 1), which looked at: (1) potential ambient impacts of SO_2 emissions from certain facilities in Tennessee on neighboring states based on available SO_2 air dispersion modeling results; (2) SO_2 emissions from Tennessee sources; (3) SO_2 ambient air quality for Tennessee and neighboring states, including the analysis of Eastman Chemical in Sullivan County, Tennessee; (4) SIP-approved Tennessee regulations that address SO_2 emissions; and (5) Federal regulations that reduce SO_2 emissions at Tennessee sources.

For the prong 2 analysis, EPA evaluated the data discussed in section III.C. of this notice for prong 1, with a specific focus on evaluating emissions trends in Tennessee, analyzing air quality data, and assessing how future sources of SO_2 are addressed through existing SIP-approved and Federal regulations. Based on 2019 emissions data, there is a continued trend of decreasing statewide SO_2 emissions within Tennessee. Additionally, there are no Tennessee sources emitting over 100 tpy of SO_2 in 2019 within 50 km of adjacent states' monitors with 2017–2019, 2018–2020, and 2019–2021 DVs that exceed the level of the 2010 1-hour SO_2 NAAQS. Given the historical trend of overall decreasing SO_2 emissions from sources within Tennessee, EPA proposes that evaluating whether these decreases in emissions can be maintained over time is a reasonable criterion to ensure that sources within Tennessee do not interfere with its neighboring states' ability to maintain the 2010 1-hour SO_2 NAAQS.

With respect to air quality data trends, the 2015–2017 through 2019–2021 DVs for the Blount County AQS SO_2 monitor and the 2012–2014 through 2019–2021 DVs for the Shelby County AQS SO_2 monitor in Tennessee within 50 km of another state's border are well below the level of the 2010 1-hour SO_2 NAAQS, as shown in Table 10 in section III.C.3.b. Additionally, three of the four Sullivan County monitors in Tennessee have a 2019–2021 DV below the level of the 2010 1-hour SO_2 NAAQS. The fourth monitor is located north of the facility and is 1.3 km directly upwind of an attaining monitor in the nonattainment area. Given the decreasing gradient measured in the 2019–2021 and 2020–2022 DVs between the monitors 47–163–6003 and 47–163–6001, which are only 1.3 km apart, it may be the case that SO_2 emissions from the source would not contribute to nonattainment in the neighboring states that are 8 km–50 km from Eastman Chemical. Tennessee's revised transport modeling for Eastman Chemical submitted on November 30, 2021, along with decreasing SO_2 emissions trends resulting from additional controls at Eastman Chemical, and the absence of any large neighboring SO_2 sources, support EPA's proposed finding that Eastman Chemical will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in Kentucky, North Carolina, and Virginia. Further, as shown in Tables 2 and 3, modeling results for sources in Tennessee within 50 km of the State border, including Eastman Chemical, are below the level of the 2010 1-hour SO_2 NAAQS in neighboring states and modeling results for sources in neighboring states within 50 km of Tennessee's border show maximum impacts are well below level of the 2010 1-hour SO_2 NAAQS. Thus, these modeling results, in addition to the lack of additional nearby large SO_2 sources in the neighboring states within 50 km of the Tennessee border, SIP-approved and Federal regulations that have reduced SO_2 emissions as discussed above, and annual DRR reporting for large sources, demonstrate that Tennessee's sources of SO_2 are not expected to interfere with maintenance of the 2010 1-hour SO_2 NAAQS in another state.

3. Conclusion

EPA proposes to determine that Tennessee's July 31, 2019, SIP submission, as supplemented by the revised modeling for Eastman Chemical on November 30, 2021, satisfies the requirements of prong 2 of CAA section 110(a)(2)(D)(i)(I). This determination is based on the following considerations: SO_2 emissions statewide from 2005 to 2014 for all source categories (except the ''Event'' category, which includes emissions from fires) and 2005 to 2017 for point sources in Tennessee have declined significantly; current Tennessee SIP-approved measures and Federal emissions control programs ensure control of SO_2 emissions from sources within Tennessee; current 2019–2021 DVs for the AQS SO_2 monitors in Blount and Shelby Counties Tennessee within 50 km of another state's border with valid DVs are well below the level of the 2010 1-hour SO_2 NAAQS; regarding the Sullivan County, Tennessee, monitors, three of the four Sullivan County monitors in Tennessee have a 2019–2021 DV below the level of the 2010 1-hour SO_2 NAAQS; regarding Eastman Chemical and the Sullivan County monitor which is located north of the facility and is 1.3 km directly upwind of an attaining monitor in the nonattainment area, so given that the physical properties of SO_2 result in relatively localized pollutant impacts, the decreasing gradient measured in the 2019–2021 DVs between the monitors over only 1.3 km indicates that it is unlikely that SO_2 emissions from the Eastman Chemical facility would contribute to nonattainment in the neighboring states that are 8 km–50 km from Eastman Chemical; Tennessee's revised transport modeling for Eastman Chemical submitted on November 30, 2021, along with decreasing SO_2 emissions trends resulting from additional controls at Eastman Chemical, and the absence of any large

neighboring SO_2 sources, support EPA's proposed finding that Eastman Chemical will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in Kentucky, North Carolina, and Virginia; and modeling for DRR sources within 50 km of Tennessee's border both within the State and located in other states demonstrate that Tennessee's largest point sources of SO_2 are not expected to interfere with maintenance of the 2010 1-hour SO_2 NAAQS in another state. Based on these factors described above, in addition to the analysis provided by Tennessee in its SIP submission and supplemented on November 30, 2021, with revised modeling for Eastman Chemical, and EPA's prong 1 analysis of the factors described in section III.C and III.D of this notice, EPA proposes to find that emission sources within Tennessee will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in any other state.

IV. Proposed Action

Based on the above analysis, EPA is proposing to approve Tennessee's July 31, 2019, SIP submission. This determination is based on EPA's independent evaluation, including as supplemented by the revised modeling for Eastman Chemical, as demonstrating that emissions from Tennessee will not contribute significantly to nonattainment or interfere with maintenance of the 2010 1-hour SO_2 NAAQS in another state.

V. 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. *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. Accordingly, 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 (88 FR 21879, April 11, 2023);
- 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 (Pub. L. 104–4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a State program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- 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.

In addition, 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 and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, Feb. 16, 1994) directs Federal agencies to identify and address ''disproportionately high and adverse human health or environmental effects'' of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. EPA defines environmental justice (EJ) as ''the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.'' EPA further defines the term fair treatment to mean that ''no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.''

TDEC did not evaluate EJ considerations as part of its SIP submittal; the CAA and applicable implementing regulations neither prohibit nor require such an evaluation. EPA did not perform an EJ analysis and did not consider EJ in this proposed action. Due to the nature of the action proposed here, this proposed action is expected to have a neutral to positive impact on the air quality of the affected area. Consideration of EJ is not required as part of this proposed action, and there is no information in the record inconsistent with the stated goal of E.O. 12898 of achieving EJ for people of color, low-income populations, and Indigenous peoples.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate Matter, Reporting and recordkeeping requirements, Sulfur oxides.

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

Jeaneanne Gettle,

Acting Regional Administrator, Region 4.

[FR Doc. 2023–13470 Filed 6–23–23; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 63

[EPA–HQ–OAR–2022–0879; FRL–8899–01–OAR]

RIN 2060–AV40

National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines and New Source Performance Standards: Internal Combustion Engines; Electronic Reporting

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to amend the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE), the New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines, and the NSPS for Stationary Spark Ignition (SI) Internal Combustion Engines, to add electronic reporting provisions. The addition of electronic reporting provisions will provide for simplified reporting by sources and enhance availability of data on sources to the EPA and the public. In addition, a small number of clarifications and corrections to these rules are being proposed to correct inadvertent and other minor errors in the Code of Federal Regulations (CFR), particularly related to tables. Finally, information is being