6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2019-0329; FRL–10002-76-Region 4]

Air Plan Approval; GA; 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 Georgia's January 9, 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 address 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 Georgia 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 January 9, 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 [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R04-OAR-2019-0329 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: Michele Notarianni, 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. Ms. Notarianni can be reached via phone number (404) 562-9031 or via electronic mail at notarianni.michele@epa.gov.

SUPPLEMENTARY INFORMATION:

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 99^{th} percentile of 1-hour daily maximum 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." 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) and prong 2 (interference with maintenance of the NAAQS).

On January 9, 2019, the Georgia Department of Natural Resources, through the Georgia Environmental Protection Division (GA EPD), submitted a revision to the Georgia SIP addressing only prongs 1 and 2 of CAA section 110(a)(2)(D)(i)(I) for the 2010 1-hour SO_2 NAAQS.[1] EPA is proposing to approve GA EPD's January 9, 2019, SIP submission because the State demonstrated that Georgia 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 Georgia were addressed in separate rulemakings.[2]

B. 2010 1-Hour SO_2 NAAQS Designations Background

In this 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.[3]

[1] In an October 22, 2013, SIP submission, as supplemented on July 25, 2014, GA EPD submitted SIP revisions 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).

[2] EPA acted on the other elements of Georgia's October 22, 2013, SIP submission, as supplemented on July 25, 2014, for the 2010 1-hour SO_2 NAAQS on April 28, 2016 (81 FR 25355).

[3] 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 as to impacts, CAA section 110(a)(2)(D) refers only to prevention of 'nonattainment' in other states, not to prevention of nonattainment in designated nonattainment areas or any similar formulation requiring that designations for

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) 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). EPA completed the first round of designations ("round 1")[4] 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).

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 required state air agencies to characterize air quality, through air dispersion modeling or monitoring, in areas associated with sources that emitted 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 expected that the information generated by implementation of the DRR would help inform

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downwind nonattainment areas must first have occurred. *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).

[4] The term "round" in this instance refers to which "round of designations."

designations for the 2010 1-hour SO_2 NAAQS that must be completed by December 31, 2020 ("round 4").[5] EPA signed Federal Register notices of promulgation for round 2 designations[6] on June 30, 2016 (81 FR 45039 (July 12, 2016)), and on November 29, 2016 (81 FR 89870 (December 13, 2016)), and round 3 designations[7] on December 21, 2017 (83 FR 1098 (January 9, 2018)).

Currently, there are no nonattainment areas for the 2010 1-hour SO_2 NAAQS in Georgia. One area in Floyd County, Georgia, will be designated in round 4.[8] The remaining counties in Georgia were designated as attainment/unclassifiable in rounds 2 and round 3.

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 sources usually do not have long range SO_2 impacts. 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 possible concern only near the emissions source. However, ambient 1-hour concentrations of SO_2 do not decrease as quickly

[5] Consent Decree, *Sierra Club* v. *McCarthy*, Case No. 3:13-cv-3953-SI (N.D. Cal. Mar. 2, 2015). This March 2, 2015, consent decree requires EPA to sign for publication in the Federal Register notices of the Agency's promulgation of area designations for the 2010 1-hour SO_2 NAAQS by three specific deadlines: July 2, 2016 ("round 2"); December 31, 2017 ("round 3"); and December 31, 2020 ("round 4").

[6] 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.

[7] 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.

[8] *See Technical Support Document: Chapter 10: Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Georgia* at https://www.epa.gov/sites/production/files/2017-12/documents/10-ga-so2-rd3-final.pdf. *See also Technical Support Document: Chapter 10: Proposed Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Georgia* at https://www.epa.gov/sites/production/files/2017-08/documents/10_ga-so2-rd3-final.pdf.

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 and because SO_2 typically has a higher emissions release height than Pb. 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, while the approaches that EPA has adopted for ozone or $PM_{2.5}$ transport are too regionally focused, the approach for Pb transport is too tightly circumscribed to the source. SO_2 transport is therefore a unique case and requires a different approach. In 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.

In its July 31, 2019, SIP submission, GA EPD identified a distance threshold to reflect the transport properties of SO_2. GA EPD selected a spatial scale with dimensions from four to 50 km from point sources – the "urban scale" – as appropriate in assessing trends in both area-wide air quality and the effectiveness of large-scale pollution control strategies at such point sources. GA EPD supported this choice of transport distance threshold with references to the March 1, 2011, EPA memorandum titled "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard," and noted that GA EPD believes that this guidance memorandum can be applied to 1-hour SO_2 analyses.[9] In its January 9, 2019, SIP submission, GA EPD included a quote from page 16 of this March 1, 2011, EPA memorandum: "Even accounting for some terrain influences on the location and gradients of maximum 1-hour concentrations, these considerations suggest that the

[9] EPA's March 1, 2011, memorandum, *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard*, is available at: https://www.epa.gov/sites/production/files/2015-07/documents/appwno2_2.pdf.

emphasis on determining which nearby sources to include in the modeling analysis should focus on the area within about 10 kilometers of the project location in most cases. The routine inclusion of all sources within 50 kilometers of the project location, the nominal distance for which the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) is applicable, is likely to produce an overly conservative result in most cases." In addition, the State indicated that GA EPD conducted modeling for the DRR which showed that the highest impacts from sources are typically within 2-5 km from the source and that the impacts past 10 km are "insignificant." GA EPD believes that based on EPA's March 11, 2011, guidance memorandum and GA EPD's SO_2 modeling, an appropriate transport distance for SO_2 from Georgia to neighboring states is 10 km. However, GA EPD stated that Georgia "will use an extremely conservative transport distance of 50 km in this demonstration to match the distance for which AERMOD is applicable."[10]

Given the properties of SO_2, EPA preliminarily agrees with Georgia's selection of the urban scale to assess trends in area-wide air quality that might impact downwind states.[11] As discussed further in section III.B, EPA believes that Georgia'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. EPA's notes that Georgia's selection of this transport distance for SO_2 is consistent with 40 CFR 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.

[10] See page 3 of Georgia's January 9, 2019, SIP submission in the docket for this action.

[11] For the definition of spatial scales for SO_2, please 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 notice of proposed rulemaking on Connecticut's SO_2 transport SIP. 82 FR 21351, 21352, 21354 (May 8, 2017).

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 is proposing to concur with Georgia'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.[12]

As discussed in sections III.C and III.D, EPA first reviewed Georgia'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 and available source modeling for monitors and sources in Georgia and in neighboring states within 50 km of the Georgia border.[13]

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

A. State Submission

On January 9, 2019, GA EPD submitted a revision to the Georgia SIP addressing prongs 1 and 2 of CAA section 110(a)(2)(D)(i)(I) for the 2010 1-hour SO_2 NAAQS. Georgia 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.

GA EPD reviewed the following information to support its conclusion that Georgia does not significantly contribute to nonattainment or interfere with maintenance of the 2010 1-hour

[12] Because EPA concurs with Georgia's application of the 50-km threshold, EPA is not addressing Georgia's assertion that impacts of SO_2 beyond 10 km are insignificant.

[13] This proposed approval action is based on the information contained in the administrative record for this action, and does not prejudge any future EPA action that may make other determinations regarding the air quality status in Georgia and downwind states. Any such future action, such as area designations under any NAAQS, will be based on their own administrative records and EPA's analyses of information that becomes available at those times. Future available information may include, and is not limited to, monitoring data and modeling analyses conducted pursuant to EPA's DRR and information submitted to EPA by states, air agencies, and third-party stakeholders such as citizen groups and industry representatives.

SO_2 NAAQS in downwind states: annual SO_2 99^{th} percentile values (2015, 2016, and 2017) and 2017 design values (DVs)[14] at monitors in Georgia and adjacent states within 50 km of Georgia's border; SO_2 emissions trends in Georgia and adjacent states from 1990 to 2017; the fact that EPA designated all counties within 50 km of Georgia's border as attainment/unclassifiable with the exception of Haywood County in North Carolina and a portion of Nassau County in Florida[15] (GA EPD's analysis of Haywood County, North Carolina, and Nassau County, Florida, is described in section III.C.3.a of this notice); and established federal and State control measures which reduce SO_2 emissions in the present and future. Based on this weight of evidence analysis, the State concluded that emissions within Georgia 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 Georgia's submission is detailed in sections III.B, C, and D.

B. EPA's Evaluation Methodology

EPA believes that a reasonable starting point for determining which sources and emissions activities in Georgia 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).[16] The NEI is a comprehensive and detailed estimate of air emissions for criteria pollutants, criteria pollutant precursors, and hazardous air pollutants from air emissions

[14] A "Design Value" 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 values for a monitoring site. 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. The 2017 DV is calculated based on the three year average from 2015-2017.

[15] On April 24, 2019, EPA approved Florida's request, submitted on June 7, 2018, to redesignate the Nassau County area to attainment for the 2010 1-hour SO_2 NAAQS and the accompanying SIP revision containing the maintenance plan for the area. *See* 84 FR 17085. EPA's redesignation of the Nassau Area was based, in part, on a modeled attainment demonstration that included permanent and enforceable SO_2 controls and emissions limits at the Rayonier and WestRock facilities showing attainment of the 2010 SO_2 standard by the statutory deadline.

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

sources that is updated every three years using information provided by the states and other information available to EPA.

EPA evaluated data from the 2014 NEI (version 2), the most recently available, complete, and quality assured dataset of the NEI. As shown in Table 1, the majority of SO_2 emissions in Georgia originate from fuel combustion at point sources.[17] In 2014, SO_2 emissions from point sources[18] in Georgia comprised approximately 91 percent of the total SO_2 emissions in the State, with 81 percent of the State's total SO_2 emissions coming from fuel combustion point sources. Because emissions from the other listed source categories are more dispersed throughout the State, those categories are less likely to cause high ambient concentrations when compared to a point source on a ton-for-ton basis. In addition, EPA considered 2017 statewide SO_2 emissions data in Georgia's SIP submission, which showed that fuel combustion by electric generating units (EGUs) and industrial processes comprised approximately 57 percent of the State's SO_2 emissions in 2017.[19] Based on EPA's analysis of the 2014 NEI and GA EPD's evaluation of 2017 statewide SO_2 emissions data by certain source categories, EPA believes that it is appropriate to focus the analysis on SO_2 emissions from Georgia's larger point sources (i.e., emitting over 100 tpy of SO_2 in 2017), including fuel combustion point sources, which are located within the "urban scale," i.e., within 50 km of one or more state borders.

Table 1: Summary of 2014 NEI (Version 2) SO_2 Data for Georgia by Source Type

Category	Emissions (tpy)	Percent of Total SO_2

[17] 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.
[18] Georgia's point sources listed in Table 1, for the purposes of this action, are comprised of all of the "Fuel Combustion" categories and "Industrial Processes (All Categories)."
[19] See Table 2 on p.7 of Georgia's July 31, 2019, SIP submission.

		Emissions
Fuel Combustion: EGUs (All Fuel Types)	65,464.40	64
Fuel Combustion: Industrial Boilers/Internal Combustion Engines (All Fuel Types)	14,152.46	14
Fuel Combustion: Commercial/Institutional (All Fuel Types)	2,833.38	3
Fuel Combustion: Residential (All Fuel Types)	140.30	0
Industrial Processes (All Categories)	10,789.15	11
Mobile Sources (All Categories)	3,077.47	3
Fires (All Types)	4,772.53	5
Waste Disposal	919.03	1
Solvent Processes	0.28	0
Miscellaneous (Non-Industrial)	5.57	0
SO_2 Emissions Total	**102,154.57**	**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 Georgia's point sources of SO_2 emissions located within approximately 50 km of another state and their potential impact on neighboring states.

As discussed in section I.B., EPA's current implementation strategy for the 2010 1-hour SO_2 NAAQS includes the flexibility to characterize air quality for stationary sources subject to the 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 the "DRR monitor"). EPA's assessment of SO_2 emissions from Georgia's point sources located within approximately 50 km of another state and their potential impacts on neighboring states (section III.C.1. of this notice) and SO_2 air quality data at monitors within 50 km of the Georgia border (section III.C.3. of this notice) is informed by all available data at the time of this rulemaking.[20]

[20] 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

As described in Section III, EPA proposes to conclude that an assessment of Georgia'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 of SO_2 emissions from Georgia's point sources, including fuel combustion sources, located within approximately 50 km of another state and upon any regulations intended to address Georgia's point 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 significantly contribute to nonattainment of a NAAQS in another state. GA EPD confirms in its submission that Georgia sources will not contribute significantly to nonattainment in any other state with respect to the 2010 1-hour SO_2 standard. To evaluate Georgia's satisfaction of prong 1, EPA assessed the State's implementation plan with respect to the following factors: 1) potential ambient impacts of SO_2 emissions from certain facilities in Georgia on neighboring states based on available air dispersion modeling results; 2) SO_2 ambient air quality and emissions trends for Georgia and neighboring states; 3) SIP-approved regulations that address SO_2 emissions; and 4) federal regulations that reduce SO_2 emissions. A detailed discussion of Georgia's SIP submission with respect to each of these factors follows.[21] EPA proposes that these factors, taken together, support the Agency's proposed determination that Georgia will not significantly contribute to nonattainment of the 2010 1-hour SO_2 NAAQS in another state. EPA also notes that the Agency does not have information indicating that there are violations of the 2010 1-hour SO_2 NAAQS in the surrounding states. Also, 2017 SO_2 emissions for Georgia's

approach taken in this or any future rulemaking for Georgia, depending on available information and state-specific circumstances.

[21] EPA has reviewed Georgia's submission, and where new or more current information has become available, is including this information as part of the Agency's evaluation of this submission.

non-DRR sources emitting over 100 tons of SO_2 within 50 km of another state are at distances or emit levels of SO_2 that make it unlikely that these SO_2 emissions could interact with SO_2 emissions from the neighboring states' sources in such a way as to contribute significantly to nonattainment in these states. In addition, the downward trends in SO_2 emissions and DVs for air quality monitors in the State, the fact that the highest annual 99th percentile daily maximum 1-hour SO_2 concentration values observed at the only DRR monitor within 50 km of the Georgia border were well below the 2010 1-hour SO_2 NAAQS in 2017 and 2018, combined with federal and State SIP-approved regulations affecting SO_2 emissions of Georgia's sources, further support EPA's proposed conclusion.

1. SO_2 Designations Air Dispersion Modeling

a. State Submission

In its SIP revision, GA EPD references modeling done by the State for the DRR when discussing SO_2 transport. Regarding source-specific modeling under the DRR, EPA evaluated and summarized the modeling results for Georgia's DRR sources within 50 km of the State's border in Table 2 of section III.C.1.b.

b. EPA Analysis

EPA evaluated available DRR modeling results for sources in Georgia and in the adjacent states that are within 50 km of the Georgia border.[22] The purpose of evaluating modeling results

[22] As discussed in section I.B., Georgia 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 round 3 SO_2 designations. EPA's preferred modeling platform for regulatory purposes is AERMOD (Appendix W of 40 CFR part 51). In these DRR modeling analyses using AERMOD, the impacts of the actual emissions for one or more of the recent 3-year periods (e.g., 2012-2014, 2013-2015, 2014-2016) were considered, and in some cases, the modeling was of currently effective limits on allowable emissions in lieu of or as a supplement to modeling of actual emissions. The available air dispersion modeling of certain SO_2 sources can support 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

in adjacent states within 50 km of the Georgia border is to ascertain whether any nearby sources in Georgia are impacting a violation of the 2010 1-hour SO_2 NAAQS in another state.[23]

Table 2 provides a summary of the modeling results for the modeled DRR sources[24] in Georgia which are located within 50 km of another state: Georgia-Pacific Consumer Products – Savannah River Mill (Savannah River Mill); Georgia Power Company – Plant Bowen (Plant Bowen); Georgia Power Company – Plant McIntosh (Plant McIntosh); Georgia Power Company – Plant Wansley (Plant Wansley); and International Paper – Savannah. The modeling analysis resulted in no modeled violations of the 2010 1-hour SO_2 NAAQS within the modeling domain for each facility.

Table 2: Georgia Sources with DRR Modeling Located Within 50 km of Another State

DRR Source	County	Approximate Distance from Source to Adjacent State (Km)	Other Facilities Included in Modeling	Modeled 99th Percentile Daily Maximum 1-Hour SO_2 Concentration (ppb)	Model Grid Extends Into Another State?
International Paper – Savannah	Chatham	< 5 (SC)	None	66.0 (*based on 2011-2013 actual and allowable/potential-to-emit (PTE) emissions)*	Yes – into SC (western portion of Jasper County, SC)
Plant	Bartow	45 (AL)	None	57.6 (*based on 2014-*	No

drop off with distance. Thus, EPA believes that the use of AERMOD provides a reliable indication of air quality for transport purposes.

[23] EPA established a non-binding technical assistance document to assist states and other parties in their efforts to characterize air quality through air dispersion modeling for sources that emit SO_2 titled, "SO_2 NAAQS Designations Modeling Technical Assistance Document." This draft document was first released in spring 2013. Revised drafts were released in February and August of 2016 (*see* https://www.epa.gov/sites/production/files/2016-06/documents/so2modelingtad.pdf).

[24] The DRR modeling results for Georgia's DRR sources may be found in the proposed and final round 3 technical support documents at: https://www.epa.gov/sites/production/files/2017-08/documents/10_ga-so2-rd3-final.pdf and https://www.epa.gov/sites/production/files/2017-12/documents/10-ga-so2-rd3-final.pdf. Georgia Power Company - Plant Kraft is a DRR source in Georgia located less than 5 km from the South Carolina border which has shut down as of October 13, 2015, and its operating permit was formally revoked on November 9, 2016. Georgia Power – Plant Yates (Plant Yates) is a DRR source in Georgia located approximately 34 km from the Alabama border. Plant Yates accepted a federally enforceable emissions limit as its pathway to satisfy the DRR. Units 1–5 at Plant Yates were permanently shut down on April 15, 2015, and units 6 and 7 were converted from coal-fired to natural gas-fired by the same date, in accordance with an April 29, 2014, title V permit revision to comply with the Mercury and Air Toxics Rule. The facility then added permit condition 3.2.1, restricting all fuel burning to natural gas, in its title V operating permit effective January 10, 2017.

Table 2: Georgia Sources with DRR Modeling Located Within 50 km of Another State					
DRR Source	**County**	**Approximate Distance from Source to Adjacent State (Km)**	**Other Facilities Included in Modeling**	**Modeled 99th Percentile Daily Maximum 1-Hour SO_2 Concentration (ppb)**	**Model Grid Extends Into Another State?**
Bowen				*2016 actual emissions*)	
Plant McIntosh *(Modeled with Savannah River Mill)*	Effingham	< 5 (SC)	Effingham County Power, LLC facility (GA); GA Pacific –Savannah River Mill (GA);* South Carolina Electric & Gas (SCE&G) Jasper Generating Station (SC) (*based on allowable/ PTE emissions for Effingham County Power and Jasper Generating Station*)	71.6 for both Plant McIntosh and Savannah River Mill (*based on 2012-2014 actual emissions for the steam generating unit at Plant McIntosh; combustion turbines at Plant McIntosh were modeled at PTE*)	Yes – extends into western portion of Jasper County, SC
Plant Wansley	Heard	17 (AL)	Plant Yates, Municipal Electric Authority of Georgia, Chattahoochee Energy, and Wansley Combined-Cycle Generating Plant (GA)	15 (*based on 2012-2014 actual emissions for Plant Wansley and allowable/PTE emissions for the nearby sources)*	No
Savannah River Mill *(Modeled with Plant McIntosh)*	Effingham	< 5 (SC)	Effingham County Power, LLC facility (GA); Plant McIntosh (GA);* SCE&G Jasper Generating Station (SC) (*based on allowable/PTE emissions for Effingham County Power and Jasper Generating*	71.6 for both Plant McIntosh and Savannah River Mill* (*based on 2012-2014 actual emissions for the steam generating unit at Plant McIntosh; combustion turbines at Plant McIntosh were modeled at PTE*)	Yes – extends into western portion of Jasper County, South Carolina

Table 2: Georgia Sources with DRR Modeling Located Within 50 km of Another State					
DRR Source	**County**	**Approximate Distance from Source to Adjacent State (Km)**	**Other Facilities Included in Modeling**	**Modeled 99th Percentile Daily Maximum 1-Hour SO_2 Concentration (ppb)**	**Model Grid Extends Into Another State?**
			Station)		

* Savannah River Mill's 2010 1-hour SO_2 modeled DV is based on 2012-2014 actual emissions for three primary power boilers and allowable/PTE emissions for 13 emissions units at Savannah River Mill. For more details, see pp. 67-68 of EPA's *Technical Support Document: Chapter 10 Proposed Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for Georgia* located at https://www.epa.gov/sites/production/files/2017-08/documents/10_ga-so2-rd3-final.pdf.

Table 3 provides a summary of the modeling results for the modeled DRR sources in neighboring states which are located within 50 km of Georgia:[25] Continental Carbon Company – Phenix City Plant (Continental Carbon) in Alabama and JEA - Northside/St. Johns River Power Park (SJRPP);[26] WestRock CP, LLC – Fernandina Beach Mill (WestRock); and White Springs Agricultural Chemical – Swift Creek Chemical Complex (White Springs) in Florida.

Table 3: Other States' Sources with DRR Modeling Located Within 50 km of Georgia					
DRR Source	**County (State)**	**Approximate Distance From Source to Georgia Border (km)**	**Other Facilities Included in Modeling**	**Modeled 99th Percentile Daily Maximum 1-Hour SO_2 Concentration (ppb)**	**Model Grid Extends Into Another State?**
Continental Carbon	Russell (AL)	1	IIG MinWool LLC (AL)	60.63 *(based on PTE emissions)*	Yes, into GA (the southwestern portion of Muscogee County, GA, and the

[25] Two DRR sources in adjacent states within 50 km of the Georgia border were not modeled. Tennessee Valley Authority (TVA) - Widows Creek Fossil Plant, located in Alabama, has shut down. Therefore, Alabama did not characterize this source via monitoring or modeling pursuant to the DRR. Duke Energy Carolinas LLC - W.S. Lee Steam Station (Lee Station), located in South Carolina 42 km from the Georgia border, accepted federally-enforceable permit limits to exempt out of the DRR requirements. The station closed two coal-fired units at the facility in 2014 and converted a coal-fired unit to natural gas in 2015. *See, e.g.*, EPA, *Technical Support Document: Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard* (Dec. 2017), pp. 62 and 64, available at Docket ID No. EPA–HQ–OAR–2017–0003–0611 at www.regulations.gov.

[26] Units 1 and 2 at Florida's DRR source, St. John River Power Park, shut down effective December 31, 2017.

					northwestern portion of Chattahoochee County, GA)
SJRPP	Duval (FL)	35	Cedar Bay/Generating Plant, Renessenz Jacksonville Facility, Anchor Glass Jacksonville Plant, and IFF Chemical Holdings (FL)	56.22 *(based on 2012-2014 actual emissions for SJRPP and Renessenz Jacksonville Facility; PTE rates for Cedar Bay, Anchor Glass, and IFF Chemical facilities)*	No
WestRock [27]	Nassau (FL)	< 5	Rayonier Performance Fibers (FL)	66.09 *(based on 2012-2014 actual emissions for WestRock and Rayonier; three minor sources at WestRock were modeled based on PTE)*	Yes (approximately 3 km into a portion of southern Georgia)
White Springs	Hamilton (FL)	16	PCS Suwannee River Plant* (FL)	56.34 *(based on 2012-2014 actual emissions for White Springs sulfuric acid plants E & F and permitted allowable emissions for PCS Suwanee River Plant and the remaining sources at White Springs)*	No

* The PCS Suwannee River Plant shut down most of its operations in 2014.

EPA believes that the modeling results summarized in Tables 2 and 3, weighed along with the other factors in this notice, support EPA's proposed conclusion that sources in Georgia will not significantly contribute to nonattainment of the 2010 1-hour SO_2 NAAQS in any other

[27] As discussed in footnote 15, EPA's redesignation of the Nassau Area was based, in part, on a modeled attainment demonstration that included permanent and enforceable SO_2 controls and emissions limits at the Rayonier and WestRock facilities showing attainment of the 2010 1-hour SO_2 standard.

state. Furthermore, EPA does not have any evidence of any modeled 2010 1-hour SO_2 violations in the neighboring states due to SO_2 emissions from Georgia.

2. SO_2 Emissions Analysis

a. State Submission

As discussed above, GA EPD provided 2017 statewide SO_2 emissions data by certain source categories, which showed that fuel combustion by EGUs and industrial processes comprised approximately 57 percent of the State's SO_2 emissions in 2017. In addition, GA EPD provided in Georgia's January 9, 2019, submission in Appendix A and displayed in a figure SO_2 emission trends in Georgia from 1990 to 2017 and notes that SO_2 emissions decreased by 95 percent during that time period.[28] GA EPD also analyzed and displayed in a figure in Georgia's January 9, 2019, submission SO_2 emission trends in the adjacent states of Alabama, Florida, North Carolina, South Carolina, and Tennessee from 1990 to 2017.[29] From the State's analysis of these emissions data, GA EPD concludes that there has been a significant reduction in SO_2 emissions in Georgia and its neighboring states from 2007 to 2017.

b. EPA Analysis

EPA reviewed the SO_2 emissions data from 1990 to 2017 for Georgia and the adjacent states of Alabama, Florida, North Carolina, South Carolina, and Tennessee.[30] Georgia's statewide SO_2 emissions decreased from 985,445 tons in 1990 to 50,606 tons in 2017. EPA agrees that statewide SO_2 emissions for these six states, including Georgia, have decreased significantly over this time period and notes that these reductions show a similar downward

[28] See Figures 3 and 4 on p.6 and 7, respectively, of Georgia's submission which includes statewide SO_2 emission trends in Georgia from 1990 to 2017.
[29] See Figure 4 on p.7 of Georgia's submission which includes statewide SO_2 emission trends in Georgia and the adjacent states of Alabama, Florida, North Carolina, South Carolina, and Tennessee from 1990 to 2017.
[30] 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.

trend.[31] EPA also notes that SO_2 emissions from fuel combustion at Georgia EGUs decreased from 875,451 tons in 1990 to 13,794 tons in 2017 and that SO_2 emissions from fuel combustion due to industrial processes in Georgia declined from 54,570 tons in 1990 to 14,706 tons in 2017.[32]

As discussed in section III.B, EPA 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 Georgia in distances ranging from zero km to 50 km from the sources. Therefore, in addition to the 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 and located up to 50 km from Georgia's borders using 2017 emissions data 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 impact a violation of the 2010 1-hour SO_2 NAAQS in that state. Table 4 lists sources in Georgia not subject to the DRR that emitted greater than 100 tpy of SO_2 in 2017 and are located within 50 km of the State's border.

Currently, EPA does not have monitoring or modeling data suggesting that the states of Alabama, Florida, and South Carolina are impacted by SO_2 emissions from the nine Georgia sources listed in Table 4. All 10 Georgia sources are located over 50 km from the nearest non-DRR sources in another state emitting over 100 tons of SO_2. EPA believes that the distances greater than 50 km between sources make it unlikely that SO_2 emissions from the 10 Georgia sources could interact with SO_2 emissions from these out-of-state sources in such a way as to contribute significantly to nonattainment in Alabama, Florida, or South Carolina.

[31] See Figure 4 on p.7 of Georgia's submission.
[32] See Appendix A of Georgia's submission. This data is also available at: https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data.

Table 4: Georgia Non-DRR SO_2 Sources Within 50 km of the Georgia Border Emitting Greater Than 100 TPY Near Neighboring States					
Georgia Source	**2017 Annual SO_2 Emissions (tons)**	**Approximate Distance to Georgia Border (km)**	**Closest Neighboring State**	**Approximate Distance to Nearest Neighboring State SO_2 Source (km)**	**Nearest Neighboring State Non-DRR SO_2 Source & 2017 Emissions (>100 Tons SO_2)**
Brunswick Cellulose LLC	281.4	50	Florida	88	Symrise (824.9 tons)
Georgia-Pacific Cedar Springs LLC	511.6	<5	Alabama	75	Mineral Manufacturing Corporation (182.3 tons)
Graphic Packaging International, LLC (formerly International Paper – Augusta Mill)	253.3	<5	South Carolina	88	SCE&G Cope Station (1,165.6 tons)
Imperial-Savannah, L.P.	191.0	<5	South Carolina	130	Showa Denko Carbon Inc. (241.0 tons)
PCA Valdosta Mill	471.1	7	Florida	76	Foley Cellulose LLC (1,537.6 tons)
Savannah Acid Plant LLC	163.0	<5	South Carolina	130	Showa Denko Carbon Inc. (241.0 tons)
Southern States Phosphate & Fertilizer	581.4	<5	South Carolina	130	Showa Denko Carbon Inc. (241.0 tons)
Thermal Ceramics	1,150.2	<5	South Carolina	90	SCE&G Cope Station (1,165.6 tons)
Weyerhaeuser NR Port Wentworth	524.1	<5	South Carolina	130	Showa Denko Carbon Inc. (241.0 tons)

Based on the declining SO_2 emissions trends statewide in Georgia and the adjacent states of Alabama, Florida, North Carolina, South Carolina, and Tennessee, and the Agency's analysis of the Georgia sources in Table 4, EPA believes that Georgia's potential for contributing significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in a nearby state is reduced substantially.

3. SO_2 Ambient Air Quality

a. State Submission

In its SIP submission, GA EPD included a table showing that the six SO_2 monitors in Georgia and six monitors in the adjacent states of Florida and South Carolina within 50 km of Georgia's border with complete, valid DVs for the 2015-2017 time period have 2017 DVs of 52 ppb or less, well below the 2010 1-hour SO_2 NAAQS.[33] GA EPD also summarized EPA's round 3 designations for the 2010 1-hour SO_2 NAAQS for Georgia and adjacent states. GA EPD notes that EPA designated all counties within 50 km of Georgia's border as attainment/unclassifiable in round 3 with the exception of Haywood County in North Carolina and a small portion of Nassau County in Florida.

With respect to Haywood County, North Carolina, GA EPD explains that Haywood County will be designated in round 4. The only SO_2 source in Georgia within 50 km[34] of Haywood County, North Carolina, is Multitrade Rabun Gap. According to the State, the 2014 SO_2 emissions from this facility were 25.1 tpy.[35] In the January 9, 2019, SIP submission, GA EPD concluded that Multitrade Rabun Gap will not contribute significantly to nonattainment of

[33] Table 1 of Georgia's SIP submission also presents 2015, 2016, and 2017 annual 99th percentile SO_2 concentrations in ppb (appears as "ppm" in the submission) for four monitors within 50 km of Georgia's border which do not have complete valid data to calculate a DV.
[34] EPA notes that Multitrade Rabun Gap is located approximately 55 km from Haywood County.
[35] EPA notes that Multitrade Rabun Gap emitted 28.1 tons of SO_2 in 2017.

the 2010 1-hour SO_2 NAAQS in Haywood County, North Carolina, due to the amount of these emissions and the distance from Haywood County.

With respect to Nassau County, Florida, GA EPD summarized the status of this area as follows. On August 5, 2013,[36] EPA designated an area in Nassau County, Florida, as nonattainment for the 2010 1-hour SO_2 NAAQS based on ambient SO_2 monitoring data in the area over the three-year period 2009-2011. Florida submitted an attainment demonstration for Nassau County on April 3, 2015, and EPA fully approved this demonstration on July 3, 2017. GA EPD notes that the SO_2 monitor in Nassau County has a 2017 SO_2 DV of 43 ppb. Florida submitted a redesignation request and maintenance plan for the Nassau County SO_2 nonattainment area on June 7, 2018. Thus, GA EPD concluded that because Nassau County currently has a 3-year DV well below the 2010 1-hour SO_2 NAAQS and, at the time of Georgia's SIP development, was in the process of being redesignated to attainment for the 2010 1-hour SO_2 NAAQS, SO_2 emission sources in Georgia do not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in Nassau County, Florida.[37]

b. EPA Analysis

Since the time of development of Georgia's SIP submission, certified monitoring data from EPA's Air Quality System (AQS)[38] ("AQS monitors") have become available for Georgia and the surrounding states. EPA has summarized the DVs from 2013 to 2018 for AQS monitors in Georgia within 50 km of another state in Table 5 and AQS monitors in neighboring states within 50 km of Georgia in Table 6 using relevant data from EPA's AQS DV reports for recent

[36] *See* 78 FR 47191 (effective October 4, 2013).
[37] As discussed in footnote 15, EPA has redesignated the Nassau County area to attainment for the 2010 1-hour SO_2 NAAQS.
[38] 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.

and complete 3-year periods. The 2010 1-hour SO_2 standard is violated at an ambient air quality monitoring site (or in the case of dispersion modeling, at an ambient air quality receptor location) 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.

Table 5: Trend in 1-Hour SO_2 DVs (ppb) for AQS Monitors in Georgia Within 50 km of Another State

County	AQS Site Code (ID)	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	Approximate Distance to Georgia Border (km)
Chatham	13-051-0021	66	*ND	*ND	*ND	32	32	7.1 (SC)
Chatham	13-051-1002	79	78	70	52	48	45	2.8 (SC)
Floyd	13-115-0003	67	46	35	42	*ND	*ND	12.6 (AL)
Richmond	13-245-0091	*ND	*ND	61	60	52	52	6.2 (SC)

* ND indicates "No Data" due to monitor startup or shutdown (operated less than three years), data quality issues, or incomplete data.
**The Floyd County, Georgia monitor (AQS ID: 13-115-0003) was discontinued in 2016.

As shown in Table 5, DVs for the four non-DRR monitoring sites in Georgia within 50 km of another state's border have remained well below the 2010 1-hour SO_2 NAAQS for the 2011-2013 through 2016-2018 time periods.[39] The monitor located in Floyd County maintained 2010 1-hour SO_2 NAAQS DVs well below the NAAQS for the 2011-2013 through 2014-2016 time periods, and was then relocated to a nearby site in 2016 to characterize the area pursuant to the DRR; therefore, no DVs are available for this monitor after the 2014-2016 time period.[40]

[39] The Muscogee County, Georgia monitor (AQS ID: 13-215-008) is not shown in Table 5 because it was discontinued in 2012, and therefore, has no DVs for the 2011-2013 through the 2016-2018 time periods.
[40] The Floyd County, Georgia monitor (AQS ID: 13-115-0003) shown in Table 5 of this notice was relocated in January 2017 to the opposite side of the International Paper-Rome facility to characterize the area of expected maximum 1-hour SO_2 concentration near the source pursuant to the DRR. This DRR monitor in Floyd County, Georgia (AQS ID: 13-115-0006), is shown in Table 7 of this notice and does not have a valid 2015-2017 DV because the monitor was relocated. The data from the original monitor (AQS ID: 13-115-0003) and the relocated monitor (AQS ID: 13-115-0006) were not combined to calculate a DV because the relocated monitor (AQS ID: 13-115-0006) was installed to characterize the air quality in the area under the DRR.

There is one AQS monitor in South Carolina and six AQS monitors in Florida that are located within 50 km of Georgia. As shown in Table 6, the DVs from 2013 to 2018 for these monitors are generally trending downward, and the 2018 DVs are well below the 2010 1-hour SO_2 NAAQS, with the exception of the Hamilton County, Florida monitor which has no data for the 2016-2018 DV time period. The Hamilton County monitor has 2012 and 2013 DVs of 23 and 25 ppb, respectively, and incomplete data for the remaining DV time periods (2014-2018).

Table 6: 2010 1-Hour SO_2 DVs (ppb) for AQS Monitors With Complete, Valid Data Within 50 km of Georgia in Adjacent States

State	County	AQS ID	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	Approximate Distance to Georgia Border (km)
Florida	Duval	12-031-0032	17	17	16	16	16	18	39
Florida	Duval	12-031-0080*	11	17	17	17	10	ND**	37
Florida	Duval	12-031-0081	29	27	23	20	12	11	38
Florida	Duval	12-031-0097*	21	21	23	18	14	ND**	43
Florida	Hamilton	12-047-0015	25	ND**	ND**	ND**	ND**	ND**	19
Florida	Nassau	12-089-0005	70	57	58	51	43	37	6
South Carolina	Oconee	45-073-0001	ND**	ND**	3	2	2	2	3
Alabama	*No AQS monitors within 50 km of Georgia*								
North Carolina	*No AQS monitors within 50 km of Georgia*								

* EPA approved the shutdown of two SO_2 monitors in Duval County (AQS IDs: 12-031-0080 and 12-031-0097) in 2018.

** ND indicates "No Data" due to monitor startup or shutdown (operated less than three years), data quality issues, or incomplete data.

EPA also evaluated monitoring data provided to date for DRR monitors either located in Georgia within 50 km of another state's border or in other states within 50 km of the Georgia border that were established to characterize the air quality around specific sources subject to EPA's DRR to inform the Agency's future round 4 designations for the 2010 1-hour SO_2

NAAQS in lieu of modeling. There are no DRR monitors located in other states within 50 km of the Georgia border. There is one DRR monitor in Georgia which is within 50 km of the border, and it is located approximately 12 km from Alabama in Floyd County, Georgia (AQS ID: 13-115-0006) and is sited in the vicinity of the International Paper – Rome facility, a DRR source. Table 7 lists the 2017 and 2018 99th percentile SO_2 concentration data for this DRR monitor in Floyd County, Georgia.[41]

Table 7: Annual 99th Percentile of 1-Hour Daily Maximum SO_2 Concentrations for Round 4 DRR Monitors in Georgia Within 50 km of Another State's Border

County (State)	Round 4 Monitored Source	AQS ID	2017 99th Percentile Concentration (ppb)	2018 99th Percentile Concentration (ppb)	Approximate Distance to Alabama (km)
Floyd (GA)	International Paper - Rome	13-115-0006	22	15	12

Although the annual 99th percentile daily maximum 1-hour SO_2 concentrations shown in Table 7 are not directly comparable to a DV for the 2010 1-hour SO_2 NAAQS, which is in the form of the 3-year average of the 99th percentile of daily maximum 1-hour values, EPA notes that the highest annual 99th percentile daily maximum 1-hour values observed at the Floyd County DRR monitor in 2017 and 2018 were 22 ppb and 15 ppb, respectively, which are well below the 2010 1-hour SO_2 NAAQS. The Floyd County DRR monitor did not measure any daily exceedances of the 2010 1-hour SO_2 NAAQS during 2017 or 2018.

After careful review of the State's assessment and all available monitoring data, EPA believes that the AQS monitoring data and the preliminary data from the Floyd County DRR monitor (AQS ID: 13-115-0006) further support EPA's proposed conclusion that Georgia will

[41] The Floyd County, Georgia DRR monitor (AQS ID: 13-115-0006) does not have three or more years of complete data to establish DVs.

not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in neighboring states.

4. SIP-Approved Regulations Addressing SO_2 Emissions

a. State Submission

Georgia identified the following SIP-approved measures which help ensure that SO_2 emissions in the State do not significantly contribute to nonattainment of the 2010 1-hour SO_2 NAAQS in any other state. Georgia Rules for Air Quality Control 391-3-1-.03. - *Permits. Amended*, contains provisions addressing construction permits (391-3-1-.03(1)); operating permits (391-3-1-.03(2)); new source review (NSR) (391-3-1-.03(8)(c) and (g)); permit by rule (391-3-1-.03(11)); and generic permits (391-3-1-.03(12)). Georgia Rules for Air Quality Control 391-3-1-.02(7) addresses Prevention of Significant Deterioration (PSD) requirements, which apply to all new major sources and major modifications in attainment, unclassifiable, or undesignated areas.[42] Georgia Rules for Air Quality Control 391-3-1-.02(2)(g) - *Sulfur Dioxide* and 391-3-1-.02(13) - *Cross State Air Pollution Rule SO_2 Annual Trading Program* also reduce SO_2 emissions.

In addition, GA EPD listed the following State-enforceable rules not approved into the Georgia SIP which control SO_2 emissions: Georgia Rules for Air Quality Control 391-3-1-.02(2)(sss) - *Multipollutant Control for Electric Utility Steam Generating Units* and 391-3-1-.02(2)(uuu) - *SO_2 Emissions from Electric Utility Steam Generating Units*.

b. EPA Analysis

EPA believes that Georgia's SIP-approved measures which establish emission limits, permitting requirements, and other control measures for SO_2 effectively address emissions of

[42] There are currently no nonattainment areas for the 2010 1-hour SO_2 NAAQS in Georgia.

SO_2 from sources in the State. For the purposes of ensuring that SO_2 emissions at new major sources or major modifications at existing major sources in Georgia do not contribute significantly to nonattainment of the NAAQS, the State has a SIP-approved major NSR program. Georgia Rules for Air Quality Control 391-3-1-.03. - *Permits. Amended*, which includes NSR requirements under 391-3-l-.03(8)(c) and (g), regulates the construction of any new major stationary source or any modification at an existing major stationary source in an area designated as nonattainment, attainment, or unclassifiable. The State's SIP-approved PSD regulation, 391-3-1-.02. - *Provisions. Amended*, which includes PSD requirements under 391-3-1-.02(7), applies to the construction of any new major stationary source or major modification at an existing major stationary source in an area designated as attainment or unclassifiable or not yet designated. SIP-approved Georgia Rules for Air Quality Control 391-3-1-.03(1) - *Construction (SIP) Permit* governs the preconstruction permitting of minor modifications and the construction of minor stationary sources. These major and minor NSR rules ensure that SO_2 emissions due to major modifications at existing major stationary sources, modifications at minor stationary sources, and the construction of new major and minor sources subject to these rules will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in neighboring states.

5. Federal Regulations Addressing SO_2 Emissions in Georgia

a. State Submission

GA EPD did not identify any specific federal regulations that address SO_2 emissions in its SIP submission. Thus, EPA lists in section III.C.5.b several federal regulations which have reduced SO_2 emissions in Georgia and will continue to do so in the future.

b. EPA Analysis

The following federal control measures reduce SO_2 emissions from various sources: 2007 Heavy-Duty Highway Rule; Acid Rain Program; Cross-State Air Pollution Rule; Mercury Air Toxics Rule; National Emission Standards for Hazardous Air Pollutants; New Source Performance Standards; Nonroad Diesel Rule; and Tier 1 and 2 Mobile Source Rules. EPA believes that these federal measures will lower SO_2 emissions, which, in turn, are expected to continue to support EPA's proposed conclusion that SO_2 emissions from Georgia will not significantly contribute to nonattainment of the 2010 1-hour SO_2 NAAQS in another state.

6. Conclusion

EPA proposes to determine that Georgia's January 9, 2019, SIP submission satisfies the requirements of prong 1 of CAA section 110(a)(2)(D)(i)(I). This proposed determination is based on the following considerations: modeling for the six Georgia DRR sources within 50 km of another state's border shows that the areas around these facilities are not exceeding the level of the 2010 1-hour SO_2 NAAQS; DVs for 2013 through 2018 for the four currently operating non-DRR monitoring sites in Georgia within 50 km of another state's border have remained well below the 2010 1-hour SO_2 NAAQS; 2017 and 2018 99^{th} percentile SO_2 concentrations at the DRR monitor in Floyd County, Georgia, are well below the 2010 1-hour SO_2 NAAQS; the DVs for five of the six non-DRR monitors in Florida[43] and the one non-DRR monitor South Carolina that are located within 50 km of Georgia are trending downward overall and have remained below the level of the 2010 1-hour SO_2 NAAQS from the 2011-2013 to 2016-2018 time periods; SO_2 emissions from Georgia sources not subject to the DRR emitting over 100 tons of SO_2 in

[43] The Hamilton County, Florida monitor (AQS ID: 12-047-0015) has no data to calculate DVs for the 2012-2014 through the 2016-2018 time periods due to invalidated data for those years.

2017 are not likely interacting with SO_2 emissions from the nearest out-of-state source in a bordering state in such a way as to contribute significantly to nonattainment in Alabama, Florida, or South Carolina; downward SO_2 emissions trends in Georgia and the Agency's analysis of the non-DRR Georgia sources emitting over 100 tpy in 2017 in Table 4 suggest that Georgia's potential for contributing significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in a nearby state is reduced substantially; and current Georgia SIP-approved measures and federal emissions control programs adequately control SO_2 emissions from sources within Georgia.

Based on the analysis provided by Georgia in its SIP submission and EPA's analysis of factors described in section III.C, EPA proposes to find that sources within Georgia will not contribute significantly to nonattainment of the 2010 1-hour SO_2 NAAQS in any other state.

D. EPA's Prong 2 Evaluation – Interference with Maintenance of the NAAQS

Prong 2 of the good neighbor provision requires state plans to prohibit emissions that will interfere with maintenance of a NAAQS in another state.

1. State Submission

In its January 9, 2019, SIP submission, GA EPD confirms that Georgia will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in any other state. GA EPD bases its conclusion for prong 2 on the following: annual SO_2 99^{th} percentile values (2015, 2016, and 2017) and the 2015-2017 DVs at monitors in Georgia and within 50 km of Georgia's border; SO_2 emissions trends in Georgia and adjacent states from 1990 to 2017; and the SIP-approved measures discussed in sections III.C.4.a of this notice.

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

"independent significance" from prong 1 by evaluating the impact of upwind state emissions on downwind areas that, while 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 Georgia, EPA has also reviewed additional information on SO_2 air quality and emission trends to evaluate the State's conclusion that Georgia 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).

For the prong 2 analysis, EPA evaluated the emissions trends provided by Georgia for the State, evaluated air quality data, and assessed how future sources of SO_2 are addressed through existing SIP-approved and federal regulations. Given the continuing trend of decreasing SO_2 emissions from sources within Georgia and the fact that all areas in other states within 50 km of the Georgia border have DVs attaining the 2010 1-hour SO_2 NAAQS (with the exception of Florida's Duval County monitor (AQS ID: 12-031-0080) which does not have a 2018 DV), EPA believes that evaluating whether these decreases in emissions can be maintained over time is a reasonable criterion to ensure that sources within Georgia 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 2018 DVs for AQS SO_2 monitors both in Georgia within 50 km of another state's border and in adjacent states within 50 km of Georgia's border are below the 2010 1-hour SO_2 NAAQS. Further, modeling results for DRR sources both within the State and in neighboring states within 50 km of Georgia's border demonstrate attainment of the 2010 1-hour SO_2 NAAQS, and thus, demonstrate that Georgia'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.

As discussed in sections III.C.4 and III.C.5, EPA believes that federal and SIP-approved State regulations that both directly and indirectly reduce emissions of SO_2 in Georgia help ensure that the State does not interfere with maintenance of the NAAQS in another state. SO_2 emissions from future major modifications and new major sources will be addressed by Georgia's SIP-approved major NSR regulations described in section III.C.4. In addition, Georgia's SIP approved Air Quality Control Rule 391-3-1-.03(1) - *Construction (SIP) Permit* governs the preconstruction permitting of modifications, construction of minor stationary sources, and minor modifications of major stationary sources. The permitting regulations contained within these programs ensure that emissions from these activities do not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in the State or in any other state.

3. Conclusion

EPA proposes to determine that Georgia's January 9, 2019, SIP submission satisfies the requirements of prong 2 of CAA section 110(a)(2)(D)(i)(I). This determination is based on the following considerations: modeling for DRR sources within 50 km of Georgia's border both within the State and in neighboring states demonstrate that Georgia'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; SO_2 emissions statewide from 1990 to 2017 in Georgia have declined significantly and, weighed along with the Agency's analysis of the Georgia non-DRR sources emitting greater than 100 tpy in 2017 listed in Table 4 of this notice, indicate that Georgia's potential for interfering with maintenance of the 2010 1-hour SO_2 NAAQS in a nearby state is reduced substantially; current Georgia SIP-approved measures and federal emissions control programs adequately

control SO_2 emissions from sources within Georgia, including Georgia's SIP-approved NSR permit programs which address future large and small SO_2 sources in the State; DVs for the 2011-2013 through 2016-2018 time periods for AQS SO_2 monitors both in Georgia within 50 km of another state's border and in adjacent states within 50 km of Georgia's border are well below the level of the 2010 1-hour SO_2 NAAQS and trending downward; and the relatively low 99th percentile of 1-hour daily maximum SO_2 concentrations for 2017 and 2018 at the Floyd County, Georgia, DRR monitor. Based on the analysis provided by Georgia in its SIP submission and EPA's supplemental analysis of the factors described in section III.C and III.D of this notice, EPA proposes to find that emission sources within Georgia 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 determine that Georgia 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 January 9, 2019, SIP revision as meeting the requirements of the good neighbor provision for the 2010 1-hour SO_2 NAAQS.

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

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

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

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

Dated: November 21, 2019.

Mary S. Walker,

Regional Administrator,

Region 4.

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