



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R05-OAR-2015-0699; FRL-10015-10-Region 5]**

**Air Plan Approval; Ohio; Attainment Plan for the Muskingum River**

**SO<sub>2</sub> Nonattainment Area**

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

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve a revision to the Ohio State Implementation Plan (SIP) submitted on April 3, 2015 and October 13, 2015, and supplemented on June 23, 2020, by the Ohio Environmental Protection Agency (Ohio EPA), consisting of its plan for attaining the 1-hour sulfur dioxide (SO<sub>2</sub>) primary national ambient air quality standard (NAAQS) for the Muskingum River, Ohio SO<sub>2</sub> nonattainment area. This plan (herein called a "nonattainment plan") includes Ohio's attainment demonstration and other elements required under the Clean Air Act (CAA). In addition to an attainment demonstration, the plan addresses the requirements for meeting reasonable further progress (RFP) toward attainment of the NAAQS, reasonably available control measures (RACM) and reasonably available control technology (RACT), enforceable emission limitations and control measures, base-year and projection-year emission inventories, and contingency measures. EPA proposes to conclude that Ohio has

appropriately demonstrated that the plan provisions provide for attainment of the 2010 1-hour primary SO<sub>2</sub> NAAQS in the Muskingum River, Ohio nonattainment area and that the plan meets the other applicable requirements under the CAA.

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

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R05-OAR-2015-0699 at <http://www.regulations.gov>, or via email to [aburano.douglas@epa.gov](mailto:aburano.douglas@epa.gov). For comments submitted at [Regulations.gov](http://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from [Regulations.gov](http://www.regulations.gov). For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **"For Further Information Contact"** section. For the full EPA public comment policy, information about CBI or multimedia

submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Gina Harrison, Environmental Scientist, Attainment Planning and Maintenance Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 353-6956, [harrison.gina@epa.gov](mailto:harrison.gina@epa.gov). The EPA Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays and facility closures due to COVID-19.

**SUPPLEMENTARY INFORMATION:** Throughout this document, whenever "we," "us," or "our" is used, we mean EPA. This state submittal addressed Ohio's Lake County, Muskingum River, and Steubenville OH-WV SO<sub>2</sub> nonattainment areas. EPA is proposing action on only the Muskingum River portion of Ohio's submittal at this time; the Lake County and Steubenville portions were addressed in prior rulemaking actions. The following outline is provided to aid in locating information regarding EPA's proposed action on Ohio's Muskingum River SO<sub>2</sub> nonattainment plan.

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**I. Why was Ohio Required to Submit an SO<sub>2</sub> Plan for the Muskingum River Area?**

On June 22, 2010, EPA promulgated a new 1-hour primary SO<sub>2</sub> NAAQS of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site when the 3-year average of the annual 99<sup>th</sup> percentile of the daily maximum 1-hour average concentrations does not exceed 75 ppb, as determined in accordance with appendix T of 40 CFR part 50. See 75 FR 35520, codified at 40 CFR 50.17(a)-(b). The 3-year average of the annual 99<sup>th</sup> percentile of daily maximum 1-hour concentrations is

called the air quality monitor's SO<sub>2</sub> "design value." For the 3-year period 2009-2011, the design value at the Muskingum River SO<sub>2</sub> monitor in Morgan County, Ohio (39-115-004) was 180 ppb, which is a violation of the SO<sub>2</sub> NAAQS. On August 5, 2013, EPA designated a first set of 29 areas of the country as nonattainment for the 2010 SO<sub>2</sub> NAAQS, including the Muskingum River nonattainment area. Muskingum River's SO<sub>2</sub> designation was based upon the monitored design value at this location for this three-year period. The Muskingum River nonattainment area is defined to include part of Morgan County (Center Township) and part of Washington County (Waterford Township). See 78 FR 47191, codified at 40 CFR part 81, subpart C. This area designation was effective on October 4, 2013.

Section 191(a) of the CAA directs states to submit SIPs for areas designated as nonattainment for the SO<sub>2</sub> NAAQS to EPA within 18 months of the effective date of the designation; in this case, by no later than April 4, 2015. These SIPs are required by CAA section 192(a) to demonstrate that their respective areas will attain the NAAQS as expeditiously as practicable, but no later than 5 years from the effective date of designation. The SO<sub>2</sub> attainment deadline for Muskingum River was October 4, 2018. EPA is proposing to approve this plan in accordance with a

court-ordered deadline of October 30, 2020 for final action on the SIP.<sup>1</sup>

In response to the SO<sub>2</sub> nonattainment plan submittal requirement, Ohio submitted a nonattainment plan for the Muskingum River nonattainment area on April 3, 2015<sup>2</sup>, submitted revisions on October 13, 2015, and submitted a supplement specific to the Muskingum River area on June 23, 2020. The June 23, 2020 supplement contains the core features of the attainment plan. The remainder of this document describes the requirements that such plans must meet in order to obtain EPA approval, provides a review of the state's plan with respect to these requirements, and describes EPA's proposed action on the plan.

## **II. Requirements for SO<sub>2</sub> Nonattainment Area Plans**

Nonattainment SIPs must meet the applicable requirements of the CAA, and specifically CAA sections 110, 172, 191 and 192. EPA's regulations governing nonattainment SIPs are set forth at 40 CFR part 51, with specific procedural requirements and control strategy requirements residing at subparts F and G, respectively. Soon after Congress enacted the 1990 Amendments to the CAA, EPA issued comprehensive guidance on SIPs, in a

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<sup>1</sup> In a November 26, 2019, order issued in *Center for Biological Diversity, et al. v. Wheeler*, No. 4:18-cv-03544 (N.D. Cal.), the court ordered EPA to take action on certain aspects of Ohio's SIP submittal, including the attainment demonstration for the Muskingum River area, by October 30, 2020.

<sup>2</sup> For a number of areas, EPA published a final rule on March 18, 2016 that the pertinent states had failed to submit the required SO<sub>2</sub> nonattainment plan by this submittal deadline. See 81 FR 14736. However, because Ohio EPA had submitted its SO<sub>2</sub> nonattainment plan before that date, EPA did not make such a finding with respect to Ohio's submittal for Muskingum River.

document entitled the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," published at 57 FR 13498 (April 16, 1992) (General Preamble). Among other things, the General Preamble addressed SO<sub>2</sub> SIPs and fundamental principles for SIP control strategies. *Id.*, at 13545-13549, 13567-13568. On April 23, 2014, EPA issued recommended guidance for meeting the statutory requirements in SO<sub>2</sub> SIPs, in a document entitled, "Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions," available at [https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance\\_nonattainment\\_sip.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf). In this guidance, referred to in this document as the 2014 SO<sub>2</sub> guidance, EPA described the statutory requirements for a complete nonattainment area SIP, which includes an accurate emissions inventory of current emissions for all sources of SO<sub>2</sub> within the nonattainment area; an attainment demonstration; demonstration of RFP; implementation of RACM/RACT; enforceable emission limitations and control measures; NSR; and adequate contingency measures for the affected area.

In order for EPA to fully approve a SIP as meeting the requirements of CAA sections 110, 172 and 191-192, and EPA's regulations at 40 CFR part 51, the SIP for the affected area needs to demonstrate to EPA's satisfaction that each of the aforementioned requirements have been met. Under CAA sections 110(1) and 193, EPA may not approve a SIP that would interfere

with any applicable requirement concerning NAAQS attainment and RFP, or any other applicable requirement, and no requirement in effect (or required to be adopted by an order, settlement, agreement, or plan in effect before November 15, 1990) in any area which is a nonattainment area for any air pollutant, may be modified in any manner unless it ensures equivalent or greater emission reductions of such air pollutant.

### **III. Attainment Demonstration and Longer Term Averaging**

CAA section 172(c)(1) directs states with areas designated as nonattainment to demonstrate that the submitted plan provides for attainment of the NAAQS. The regulations at 40 CFR part 51, subpart G further delineate the control strategy requirements that SIPs must meet. EPA has long required that all SIPs and control strategies reflect four fundamental principles of quantification, enforceability, replicability, and accountability. See General Preamble, at 13567-13568. SO<sub>2</sub> attainment plans must consist of two components: (1) emission limits and other control measures that ensure implementation of permanent, enforceable and necessary emission controls, and (2) a modeling analysis which meets the requirements of 40 CFR part 51, appendix W which demonstrates that these emission limits and control measures provide for timely attainment of the primary SO<sub>2</sub> NAAQS as expeditiously as practicable, but by no later than the attainment date for the affected area. In all cases, the emission limits and control measures must be

accompanied by appropriate methods and conditions to determine compliance with the respective emission limits and control measures and must be quantifiable (i.e., a specific amount of emission reduction can be ascribed to the measures), fully enforceable (specifying clear, unambiguous and measurable requirements for which compliance can be practicably determined), replicable (the procedures for determining compliance are sufficiently specific and non-subjective so that two independent entities applying the procedures would obtain the same result), and accountable (source specific limits must be permanent and must reflect the assumptions used in the SIP demonstrations).

EPA's 2014 SO<sub>2</sub> guidance recommends that emission limits be expressed as short-term average limits (e.g., addressing emissions averaged over one or three hours), but also describes an option to utilize emission limits with longer averaging times of up to 30 days so long as the state meets various suggested criteria. See 2014 SO<sub>2</sub> guidance, pp. 22 to 39. Should states and sources utilize longer averaging times, the guidance recommends that the longer term average limit be set at an adjusted level that reflects a stringency comparable to the 1-hour average limit that the plan otherwise would have set at the critical emission value (CEV) shown to provide for attainment.

The 2014 SO<sub>2</sub> guidance provides an extensive discussion of EPA's rationale for concluding that appropriately set,

comparably stringent limitations based on averaging times as long as 30 days can be found to provide for attainment of the 2010 SO<sub>2</sub> NAAQS. In evaluating this option, EPA considered the nature of the standard, conducted detailed analyses of the impact of use of 30-day average limits on the prospects for attaining the standard, and carefully reviewed how best to achieve an appropriate balance among the various factors that warrant consideration in judging whether a state's plan provides for attainment. *Id.* at pp. 22 to 39. See also *id.* at appendices B, C, and D.

EPA considered that the 1-hour primary SO<sub>2</sub> NAAQS, as specified in 40 CFR 50.17(b), is met at an ambient air quality monitoring site when the 3-year average of the annual 99<sup>th</sup> percentile of daily maximum 1-hour average concentrations is less than or equal to 75 ppb. In a year with 365 days of valid monitoring data, the 99<sup>th</sup> percentile would be the fourth highest daily maximum 1-hour value. The 2010 SO<sub>2</sub> NAAQS, including this form of determining compliance with the standard, was upheld by the U.S. Court of Appeals for the District of Columbia Circuit in Nat'l Env't'l Dev. Ass'n's Clean Air Project v. EPA, 686 F.3d 803 (D.C. Cir. 2012). Because the standard has this form, a single hourly exceedance of the 75 ppb NAAQS level does not create a violation of the standard. Therefore, an emission limit which allows some operational flexibility or emission variability may still be protective of the standard.

At issue is whether a source operating in compliance with a properly set longer term average could cause exceedances of the NAAQS level, and if so, what are the resulting frequency and magnitude of such exceedances. Specifically, EPA must determine with reasonable confidence whether a properly set longer term average limit will provide that the 3-year average of the annual fourth highest daily maximum 1-hour value will be at or below 75 ppb. A synopsis of EPA's review of how to judge whether such plans provide for attainment in light of the NAAQS' form, based on modeling of projected allowable emissions for determining attainment at monitoring sites, is given below.

For SO<sub>2</sub> plans based on 1-hour emission limits, the standard approach is to conduct modeling using fixed emission rates. The maximum emission rate that would be modeled to result in attainment (i.e., in an "average year"<sup>3</sup> shows three, not four days with maximum hourly levels exceeding 75 ppb) is labeled the "critical emission value" or "CEV." The modeling process for identifying this CEV inherently considers the numerous variables that affect ambient concentrations of SO<sub>2</sub>, such as meteorological data, background concentrations, and topography. In the

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<sup>3</sup> An "average year" is used to mean a year with average air quality. While 40 CFR 50 appendix T provides for averaging three years of 99<sup>th</sup> percentile daily maximum hourly values (e.g., the fourth highest maximum daily hourly concentration in a year with 365 days with valid data), this discussion and an example below uses a single "average year" in order to simplify the illustration of relevant principles.

standard approach, the state would then provide for attainment by setting a continuously applicable 1-hour emission limit at this CEV.

EPA recognizes that some sources have highly variable emissions, for example due to variations in fuel sulfur content and operating rate, that can make it extremely difficult, even with a well-designed control strategy, to ensure in practice that emissions for any given hour do not exceed the CEV. EPA also acknowledges the concern that longer term emission limits can allow short periods with emissions above the CEV, which, if coincident with meteorological conditions conducive to high SO<sub>2</sub> concentrations, could in turn create the possibility of a NAAQS exceedance occurring on a day when an exceedance would not have occurred if emissions were continuously controlled at the level corresponding to the CEV. However, for several reasons, EPA believes that the approach recommended in its guidance document suitably addresses this concern. First, from a practical perspective, EPA expects the actual emission profile of a source subject to an appropriately set longer term average limit to be similar to the emission profile of a source subject to an analogous 1-hour average limit. EPA expects this similarity because it has recommended that the longer term average limit be set at a level that is comparably stringent to the otherwise applicable 1-hour limit (reflecting a downward adjustment from the CEV) and that takes the source's emissions profile into

account. As a result, EPA expects either form of emission limit to yield comparable air quality.

Second, from a more theoretical perspective, EPA has compared the likely air quality with a source having maximum allowable emissions under an appropriately set longer term limit, as compared to the likely air quality with the source having maximum allowable emissions under the comparable 1-hour limit. In this comparison, in the 1-hour average limit scenario, the source is presumed at all times to emit at the CEV level, and in the longer term average limit scenario, the source is presumed occasionally to emit more than the CEV level but on average, and presumably at most times, to emit well below the CEV. In an "average year," compliance with the 1-hour limit is expected to result in three exceedance days (i.e., three days with maximum hourly values above 75 ppb) and a fourth day with a maximum hourly value at 75 ppb. By comparison, with the source complying with a longer term limit, it is possible that additional hourly exceedances would occur that would not occur in the 1-hour limit scenario (if emissions exceed the CEV at times when meteorology is conducive to poor air quality). However, this comparison must also factor in the likelihood that hourly exceedances that would be expected in the 1-hour limit scenario would not occur in the longer term limit scenario. This result arises because the longer term limit requires lower emissions most of the time (because the limit is set well below

the CEV), so a source complying with an appropriately set longer term limit is likely to have lower emissions at critical times than would be the case if the source were emitting as allowed with a 1-hour limit.

As a hypothetical example to illustrate these points, suppose a source that always emits 1000 pounds of SO<sub>2</sub> per hour (lb/hr), which results in air quality at the level of the NAAQS (i.e., results in a design value of 75 ppb). Suppose further that in an "average year," these emissions cause the 5 highest daily maximum 1-hour average concentrations to be 100 ppb, 90 ppb, 80 ppb, 75 ppb, and 70 ppb. Then suppose that the source becomes subject to a 30-day average emission limit of 700 lb/hr. It is theoretically possible for a source meeting this limit to have emissions that occasionally exceed 1000 lb/hr, but with a typical emissions profile emissions would much more commonly be between 600 and 800 lb/hr. In this simplified example, assume a zero background concentration, which allows one to assume a linear relationship between emissions and air quality. (A nonzero background concentration would make the mathematics more difficult but would give similar results.) Air quality will depend on what emissions happen on what critical hours, but suppose that emissions at the relevant times on these 5 days are 800 pounds/hour, 1100 lb/hr, 500 lb/hr, 900 lb/hr, and 1200 lb/hr, respectively. (This is a conservative example because the average of these emissions, 900 lb/hr, is well over the 30-

day average emission limit.) These emissions would result in daily maximum 1-hour average concentrations of 80 ppb, 99 ppb, 40 ppb, 67.5 ppb, and 84 ppb. In this example, the fifth day would have an exceedance of the NAAQS level that would not otherwise have occurred, but the third day would not have an exceedance that otherwise would have occurred, and the fourth day would have been below, rather than at, 75 ppb. In this example, the fourth highest maximum daily concentration under the 30-day average would be 67.5 ppb.

This simplified example illustrates the findings of a more complicated statistical analysis that EPA conducted using a range of scenarios using actual plant data. As described in appendix B of EPA's April 2014 SO<sub>2</sub> guidance, EPA found that the requirement for lower average emissions is highly likely to yield better air quality than is required with a comparably stringent 1-hour limit. Based on analyses described in appendix B of its April 2014 SO<sub>2</sub> guidance, EPA expects that an emission profile with maximum allowable emissions under an appropriately set comparably stringent 30-day average limit is likely to have the net effect of having a lower number of NAAQS exceedances and better air quality than an emission profile with maximum allowable emissions under a 1-hour emission limit at the CEV. This result provides a compelling policy rationale for allowing the use of a longer averaging period in appropriate

circumstances where the facts indicate that a result of this type might occur.<sup>4</sup>

The question then becomes whether this approach--which is likely to produce no more overall NAAQS exceedances even though it may produce some unexpected exceedances above the CEV--meets the requirements in sections 110(a)(1), 172(c)(1), and 172(c)(6) for emission limitations in state implementation plans to "provide for attainment" of the NAAQS. For SO<sub>2</sub>, as for other pollutants, it is generally impossible to design a nonattainment plan in the present that will guarantee that attainment will occur in the future. A variety of factors can cause a well-designed plan to fail and unexpectedly not result in attainment, for example if meteorological conditions occur that are more conducive to poor air quality than was anticipated in the plan. Therefore, in determining whether a plan meets the requirement to provide for attainment, EPA's task is commonly to judge not whether the plan provides absolute certainty that attainment will in fact occur, but rather whether the plan provides an adequate level of confidence of prospective NAAQS attainment.

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<sup>4</sup> See also work done to supplement the work described in appendix B. This supplemental work, done to address a comment on rulemaking for the Southwest Indiana SO<sub>2</sub> nonattainment area objecting that the appendix B analysis is not comparable to an assessment of air quality with a 1-hour emission limit, provides further evidence that longer term limits that are appropriately determined can be expected to achieve comparable air quality as comparably stringent 1-hour limits. Documentation of this supplemental work is available in the docket for the Southwest Indiana rulemaking, at <https://www.regulations.gov/document?D=EPA-R05-OAR-2015-0700-0023>, as discussed in the associated rulemaking at 85 FR 49969-49971 (August 17, 2020).

From this perspective, in evaluating use of a 30-day average limit, EPA must weigh the likely net effect on air quality. Such an evaluation must consider the risk that occasions with meteorological conditions conducive to high concentrations will have elevated emissions leading to exceedances of the NAAQS level that would not otherwise have occurred, and must also weigh the likelihood that the requirement for lower emissions on average will result in days not having exceedances that would have been expected with emissions at the CEV. Additional policy considerations, such as in this case the desirability of accommodating real world emissions variability without significant risk of NAAQS violations, are also appropriate factors for EPA to weigh in judging whether a plan provides a reasonable degree of confidence that the plan will lead to attainment. Based on these considerations, especially given the high likelihood that a continuously enforceable limit averaged over as long as 30 days, determined in accordance with EPA's guidance, will result in attainment, EPA believes as a general matter that such limits, if appropriately determined, can reasonably be considered to provide for attainment of the 2010 SO<sub>2</sub> NAAQS.

The 2014 SO<sub>2</sub> guidance offers specific recommendations for determining an appropriate longer term average limit. The recommended method starts with determination of the 1-hour emission limit that would provide for attainment (i.e., the

CEV), and applies an adjustment factor to determine the (lower) level of the longer term average emission limit that would be estimated to have a stringency comparable to the otherwise necessary 1-hour emission limit. This method uses a database of continuous emission data reflecting the type of control that the source will be using to comply with the SIP emission limits, which (if compliance requires new controls) may require use of an emission database from another source. The recommended method involves using these data to compute a complete set of emission averages, computed according to the averaging time and averaging procedures of the prospective emission limitation. In this recommended method, the ratio of the 99<sup>th</sup> percentile among these longer term averages to the 99<sup>th</sup> percentile of the 1-hour values represents an adjustment factor that may be multiplied by the candidate 1-hour emission limit to determine a longer term average emission limit that may be considered comparably stringent.<sup>5</sup> The guidance also addresses a variety of related topics, such as the potential utility of setting supplemental emission limits, such as mass-based limits, to reduce the likelihood and/or magnitude of elevated emission levels that might occur under the longer term emission rate limit.

EPA anticipates that most modeling used to develop longer

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<sup>5</sup> For example, if the CEV is 1000 pounds of SO<sub>2</sub> per hour, and a suitable adjustment factor is determined to be 70 percent, the recommended longer term average limit would be 700 lb/hr.

term average emission limits and to prepare full attainment demonstrations will be performed using one of EPA's preferred air quality models. Preferred air quality models for use in regulatory applications are described in appendix A of EPA's *Guideline on Air Quality Models* (40 CFR part 51, appendix W).<sup>6</sup> In 2005, EPA promulgated AERMOD as the Agency's preferred near-field dispersion modeling for a wide range of regulatory applications addressing stationary sources (for example in estimating SO<sub>2</sub> concentrations) in all types of terrain based on extensive developmental and performance evaluation. Supplemental guidance on modeling for purposes of demonstrating attainment of the SO<sub>2</sub> standard is provided in appendix A to the 2014 SO<sub>2</sub> nonattainment area SIP guidance document referenced above. Appendix A provides extensive guidance on the modeling domain, the source inputs, assorted types of meteorological data, and background concentrations. Consistency with the recommendations in this guidance is generally necessary for the attainment demonstration to offer adequately reliable assurance that the plan provides for attainment.

As stated previously, attainment demonstrations for the 2010 1-hour primary SO<sub>2</sub> NAAQS must demonstrate future attainment and maintenance of the NAAQS in the entire area designated as nonattainment (*i.e.*, not just at the violating monitor) by using

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<sup>6</sup> EPA published revisions to the *Guideline on Air Quality Models* on January 17, 2017.

air quality dispersion modeling (see appendix W to 40 CFR part 51) to show that the mix of sources and enforceable control measures and emission rates in an identified area will not lead to a violation of the SO<sub>2</sub> NAAQS. For a short-term (*i.e.*, 1-hour) standard, EPA believes that dispersion modeling, using allowable emissions and addressing stationary sources in the affected area (and in some cases those sources located outside the nonattainment area which may affect attainment in the area) is technically appropriate, efficient and effective in demonstrating attainment in nonattainment areas because it takes into consideration combinations of meteorological and emission source operating conditions that may contribute to peak ground-level concentrations of SO<sub>2</sub>.

The meteorological data used in the analysis should generally be processed with the most recent version of AERMET. Estimated concentrations should include ambient background concentrations, should follow the form of the standard, and should be calculated as described in section 2.6.1.2 of the August 23, 2010 clarification memo on "Applicability of appendix W Modeling Guidance for the 1-hr SO<sub>2</sub> National Ambient Air Quality Standard" (EPA, 2010).

#### **IV. Review of Modeled Attainment Plan**

As part of its SIP development process, Ohio used EPA's regulatory dispersion model, AERMOD, to help determine the SO<sub>2</sub> emission limit revisions that would be needed to bring the

Muskingum River area into attainment of the 2010 SO<sub>2</sub> NAAQS. Ohio evaluated the two highest-emitting facilities in the Muskingum River area - the Muskingum River Power Plant and the Globe Metallurgical, Inc. facility (Globe). According to Ohio's submittal, 99 percent of the Muskingum River area's 2011 SO<sub>2</sub> emissions were attributable to the Muskingum River Power Plant, with the Globe facility accounting for 1,203 tons of SO<sub>2</sub>, which comprised the remaining 1 percent that year. On May 31, 2015, all coal fired boilers at the Muskingum River Power Plant were permanently shut down. Subsequently, the ambient monitor which had been showing violations of the NAAQS no longer recorded violations. Nevertheless, for purposes of assuring attainment and maintenance of the NAAQS, Ohio determined that, in addition to the permanent retirement of the Muskingum River Power Plant, a reduction in allowable emissions at the remaining source, the Globe facility, was warranted. Ohio performed air quality modeling and analysis and issued Director's Final Findings and Orders (DFFOs) to the Globe facility establishing 24-hour average SO<sub>2</sub> emission limits at the facility. Ohio submitted the DFFOs to EPA as a supplement its original SIP submission. These DFFOs were issued on June 23, 2020, and have a compliance deadline of September 15, 2020.

The following paragraphs evaluate various features of the most recent modeling analysis that Ohio performed for its attainment demonstration, as supplemented by the DFFOs.

#### A. *Model Selection and General Model Inputs*

For the Muskingum River attainment demonstration, Ohio used the AERMOD model, version 19191. AERMOD is EPA's preferred model for this type of application and version 19191 is the current version. The AERMOD model was run using the regulatory default mode.

AERMOD requires land use to be characterized to determine how pollutants are dispersed in the atmosphere. The state used urban dispersion coefficients to represent the proposed heat island generated by the facility operations. Beyond the facility industrial region, the area is best classified as rural.

EPA's Guideline on Air Quality Models (40 CFR Part 51 appendix W) acknowledges that larger industrial facilities can impact turbulence and dispersion in the vicinity of the facility, similar to overnight impacts on turbulence in cities.

The Globe facility analysis used two approaches to examine and justify whether the heat released from the facility was significant enough to influence dispersion. They first used satellite thermal images to estimate the urban-rural temperature difference. Twelve images from the Advanced Spaceborne Thermal Emission and Reflection radiometer satellite system were identified, with 8 images without cloud interference, to estimate the difference in temperature between warm facility areas and cooler rural areas. The average difference between

the industrial area temperatures and the rural temperatures was 8.7 degrees Celsius.

The second analysis used formulas from the AERMOD Formulation Document to relate heat flux to temperature differences between urban and rural areas. Another formula relates the temperature difference to population. The temperature difference using the Formulation Document equation results in a value of 8.5 degrees Celsius. This compares well with the 8.7 degree value determined from thermal satellite images. Ultimately the calculated heat release and temperature difference information can be used to calculate an estimated population. AERMOD uses a population value to represent the strength of the urban impact. The population used in the Globe analysis is 108,000, which reflects a relatively modest industrial heat island effect.

The state used a set of nested grids of receptors centered on the Globe facility. The analysis included a total of 5,049 receptors. Receptors were placed every 25 meters (m) along the ambient air boundary out to 350 m; 50 m out to 1 km; 100 m spacing out to 2 km, and 200 m spacing out to 5 km. The facility is in the process of purchasing property to the north. This property will be non-ambient air and does not have receptors in the current modeling. A fence runs around the entire Globe facility with adjacent property protected through surveillance and patrols. EPA finds that Ohio's submitted

modeling results, based on modeling without receptors on fenced plant property and surveilled and patrolled property currently under purchase, are adequate to demonstrate that no such violations of the 1-hour SO<sub>2</sub> NAAQS are occurring.

Ohio used the AERMAP terrain preprocessor, version 18081, with USGS Digital Elevation Data to include terrain heights at the receptor locations. The Globe facility is in the Muskingum River valley. Terrain rises about 50-60m within a kilometer to the east and north of the facility. Similar terrain increases also occur about 2-3km in the westerly and southern directions. EPA finds the model selection and these modeling options appropriate.

#### *B. Meteorological Data*

Ohio used five years (2014-2018) of National Weather Service (NWS) meteorological data from the Parkersburg, West Virginia Airport (Station 03804) with upper air data from Pittsburgh, Pennsylvania (Station 94823). One-minute wind data was processed using AERMINUTE version 15272 with a 0.5 m/s minimum wind speed threshold option. Surface parameters of the Bowen ratios (a measure of surface moisture) were developed using monthly precipitation data compared to climatological averages. The Parkersburg NWS station is at the Regional Airport located about 10 km northeast of Parkersburg, and about 35 km southeast of the Globe facility. The station is up out of the Ohio River valley on the elevated terrain. The Pittsburgh

upper air station is at the International Airport and is roughly 140 km from the Globe facility. The prevailing winds in southeast Ohio are from the south and west. The Parkersburg NWS wind roses illustrate a predominantly southwesterly flow. Both the surface and upper air station are considered reasonably representative of surface and upper air meteorological conditions, respectively, impacting the area around the Globe facility. EPA finds that the meteorological data and the procedure for determining surface characteristics are acceptable.

### *C. Modeled Emissions Data*

The Globe facility consists of two electric arc furnace shops. The main sources of SO<sub>2</sub> emissions are two baghouses, which collect emissions at the two shops from the electric arc furnaces and ancillary equipment, respectively. Emissions from each baghouse exit through a roof monitor. The Globe facility modeled emissions from the roof monitors using point source release characteristics that allowed for capturing building downwash impacts while also preserving the total buoyancy of the emission releases. Neither of these features would have been represented had the sources been modeled as volume sources. Volume source characterization does not include plume buoyancy or building downwash impacts. The baghouse stack characterizations include a stack height equal to the height of the roof monitor. The exit velocities were calculated to match

the actual flow rates from each baghouse roof monitor. Additionally, one of the baghouses (Baghouse 1) has a roof monitor that releases emissions horizontally rather than vertically. Consequently, the POINTHOR AERMOD option was used for this source to more accurately characterize its release.

Fugitive emissions released from the roof of the furnace shops were modeled using volume source parameters. A series of seven alternate volume sources were placed at the height of the roof monitor at furnace shop 1, and a series of 4 alternate volume sources were placed at the height of furnace shop 2. All were aligned evenly along monitor openings. Volume source model inputs were developed based on recommendations in the AERMOD User's Guide, Table 3-2.

Ohio modeled 26 different scenarios reflecting 26 different combinations of emissions from the two baghouses. Each of the 26 scenarios was specifically modeled for attainment of the 1-hr SO<sub>2</sub> NAAQS. Each of the 26 different scenarios also included an assumption that 2 percent of the total emissions were being released as fugitive emissions from the furnace shop. The 2 percent fugitive value was based on a capture efficiency analysis document prepared for the Globe facility and included in Ohio's submittal.

Ohio EPA's attainment demonstration only modeled emission units associated with the Globe facility. An examination of National Emissions Inventory data shows there are no other SO<sub>2</sub>

sources of significance in the area near the Globe facility, specifically that no other sources within 25 km emit over 5 tons per year (tpy).

*D. Emission Limits*

An important prerequisite for approval of a nonattainment plan is that the emission limits that provide for attainment be quantifiable, fully enforceable, replicable, and accountable. See General Preamble at 13567-68. Ohio issued DFFOs to Globe on June 23, 2020, which set forth new emission limits for the facility on the basis of a matrix of CEVs for the two baghouses, where each combination was modeled to demonstrate attainment and maintenance of the standard. As part of this proposed approval of Ohio's supplemented attainment plan for this area, EPA is proposing to approve Ohio's June 23, 2020 DFFOs for the Globe facility into the SIP, which include these new CEV combinations as emission limits. See Table 1.

Table 1

<b>SO<sub>2</sub> Emission Limit Sets</b>	<b>Calendar Day (24-hour) Emission Limits</b>	
	<b>BH1</b>	<b>BH2</b>
	<i>lbs/hr</i>	<i>lbs/hr</i>
1	195.3	0.0
2	190.6	55.8
3	186.0	74.4
4	181.3	102.3
5	176.7	116.2
6	172.0	130.2
7	167.4	144.1
8	162.7	158.1
9	158.1	167.4
10	153.4	176.7

11	148.8	186.0
12	144.1	190.6
13	139.5	195.3
14	134.8	199.9
15	130.2	204.6
16	125.5	213.9
17	120.9	218.5
18	116.2	223.2
19	111.6	223.2
20	106.9	227.8
21	88.3	232.5
22	74.4	237.1
23	60.4	241.8
24	41.8	246.4
25	27.9	251.1
26	0.0	260.4

As described in the DFFOs, compliance with the emission limit sets is determined through mass balance calculations, as implemented through a compliance assurance plan (CAP). Compliance with the emission limits will also be determined through periodic compliance performance testing.

Ohio EPA stated in its June 2020 attainment plan supplement that it plans to adopt and submit a state rule that incorporates the emission limits for the Globe facility, and associated requirements, into its regulations (Ohio Administrative Code Chapter 3745-18). Ohio believes that its DFFOs provide enforceable limits and specification of the procedures that will be used to determine compliance with these limits such that the DFFOs provide sufficient enforceable requirements for EPA to rely on these DFFOs as enforceable measures that provide for attainment, if incorporated as permanent measures into the SIP.

Any future submittal of rules to replace the DFFOs in the SIP will be addressed in separate future rulemaking, subject to the requirements of CAA section 110(l).

Because the limits set forth in the DFFOs are expressed as 24-hour average limits, part of the review of Ohio's nonattainment plan must address the use of these limits, both with respect to the general suitability of using such limits for this purpose and with respect to whether the particular limits included in the plan have been suitably demonstrated to provide for attainment. The first subsection that follows addresses the overall enforceability of the emission limits in Ohio's plan, and the second subsection that follows addresses the 24-hour average limits.

The DFFOs also require that validation testing be performed to verify the accuracy of the mass balance calculations. In addition, a Capture Evaluation conducted by a third party is required to be performed during the validation testing. This Capture Evaluation will include observations of emissions capture during the validation testing period, an evaluation of emissions capture performance, and, if appropriate, recommendations for measures to improve capture, as well as operational parameter(s) and ranges that could serve as an indicator of ongoing performance of the capture system.

## 1. Enforceability

Ohio's supplemented nonattainment plan for the Muskingum River area relies on the permanence of the Muskingum River Power Plant retirement and on revised emission limits for the Globe facility as discussed above (in section D. Emission Limits). As of April 2015, the entire Muskingum River Power Plant was shut down and all coal fired boilers were permanently retired. This facility is no longer authorized to operate its coal-fired boilers, and cannot reinstate them without obtaining a new permit under Ohio's New Source Review program. Therefore, the reductions in SO<sub>2</sub> emissions from the Muskingum River Power Plant retirement can be considered permanent, enforceable reductions.

Ohio's June 2020 DFFOs issued to Globe, in addition to establishing new emission limits, also provide specific measures and requirements that add stringency to the required emission control requirements. Specifically, the DFFOs require that Globe conduct validation testing and perform a Capture Evaluation at the facility's two baghouses to validate the mass balance calculation, and that Globe submit a CAP to be approved by Ohio EPA in consultation with EPA. The DFFOs require that the Capture Evaluation be performed by a third party in a manner designed to identify improvements and other measures, if any, that may aid in the capture of SO<sub>2</sub> emissions, and operational parameters that could serve as a reasonable indicator of ongoing performance of the capture systems. The CAP will include

specific monitoring data and techniques used to perform the mass balance calculations, associated recordkeeping and reporting to demonstrate compliance with the emission limits, parameters to be monitored to ensure adequate performance of the capture system, and reporting from the Capture Evaluation.

To provide an additional level of assurance that air quality standards are being met in the area, Ohio's new DFFOs require Globe to install an ambient SO<sub>2</sub> monitor. This monitor will be located across the Muskingum River in the vicinity of the Globe facility near an expected area of maximum impact as approved by Ohio EPA.

## 2. Longer term average limits

Ohio's SIP submittal includes emission limits for the Globe facility which require compliance based on 24-hour average emission rates. See Table 1. Ohio's primary method for determining compliance is a mass balance method, in which the emissions are assessed by determining the sulfur content of the raw materials, determining the sulfur content of the product and the process by-products, and assuming that the difference between these quantities of sulfur is all converted to SO<sub>2</sub> and emitted to the atmosphere. Ohio adopted a 24-hour limit to provide a more practical frequency of conducting this compliance determination.

In accordance with EPA's recommendations, Ohio adopted its limits at levels that were adjusted to account for the effect on

stringency of adopting the limits on a 24-hour average basis. The Globe facility does not have the continuous emissions monitoring system (CEMS) data necessary to determine an appropriate site-specific adjustment factor. Therefore, Ohio applied a national average adjustment factor from appendix D of EPA's 2014 guidance. Specifically, Ohio applied an adjustment factor of 0.93, appropriate for establishment of 24-hour average SO<sub>2</sub> limits for sources without SO<sub>2</sub> emissions control equipment. Since EPA anticipates that the Globe facility will meet its limits through careful management of the sulfur content of its feed materials, EPA considers this selection of an adjustment factor to be acceptable.

Ohio calculated the Globe facility's emission limits in accordance with EPA's recommended method. See section III. Ohio used dispersion modeling to determine 26 combinations of 1-hour CEVs for each unit that would provide for attainment of the NAAQS. Ohio then applied the above adjustment factor to determine, for each combination, the level of the longer term average emission limit for each unit that would be estimated to have a stringency comparable to the critical 1-hour emission values for each combination. EPA finds this acceptable.

#### *E. Background Concentrations*

The modeled attainment demonstration for a nonattainment area specifically includes the maximum allowable emissions and the individual dispersion characteristics of the most

significant emission source in the area. To ensure that the demonstration also represents the cumulative impacts of additional sources which are individually too small or too distant to be expected to show a significant concentration gradient within the modeling domain, a background concentration is added to the modeled results. Data from a nearby air quality monitor can be used to determine a background value which approximates the diffuse impacts of these sources within the modeling domain. For the Globe emissions assessment, Ohio used background contributions on a season/hour-of-day basis using values from the Hackney monitor, located approximately 5.5 km to the north of the Globe facility. In order to avoid double counting of impacts from Globe, hourly values in a 90 degree sector representing winds from the south were removed from the monitoring data and replaced with the average of those hourly values prior to determining season/hour-of-day values. Values ranged from 6.32 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) to 13.09  $\mu\text{g}/\text{m}^3$ . EPA finds the background values used in the Globe assessment to be acceptable.

#### *F. Summary of Results*

Ohio's attainment modeling analyses resulted in a predicted 1-hour design value of 196.0  $\mu\text{g}/\text{m}^3$ , or 74.8 ppb, which is below the SO<sub>2</sub> NAAQS of 75 ppb/196.4  $\mu\text{g}/\text{m}^3$ . This modeled value, which includes the background concentration, occurred at the northern

boundary of the Globe facility, less than 200 meters from the emission units.

EPA policy also requires that one facility must not cause or contribute to exceedances of the NAAQS on another facility's property. Ohio's modeling only excludes receptors from the Globe facility. Consequently, EPA agrees that the modeling shows that no facility is causing or contributing to violations within another facility's property.

The emission releases from the Globe facility are difficult to characterize. Ohio considered various options for characterizing the release of fugitive emissions from the baghouses and the furnace shops before concluding that the characterizations described above were warranted. While no direct means of assessing the efficiency at capturing the emissions of the furnace are available, the requirements of the DFFOs, particularly the requirement to implement recommendations of the Capture Evaluation, help make the plan's estimate of 98 percent capture a reasonable estimate. Therefore, despite the uncertainties inherent in modeling this source, EPA finds that Ohio has submitted an appropriate analysis of the impact of this source. In addition, EPA finds that the ambient SO<sub>2</sub> monitoring that Globe and Ohio are undertaking will provide a further assessment of the reliability of this modeling and thereby will provide further assurance that air quality in this area is attaining the 1-hour SO<sub>2</sub> NAAQS.

Based on its review of Ohio's analysis, EPA finds that the emission limits for the Globe facility set forth in the DFFOs, in combination with other measures identified in the state's plan, will provide for attainment and maintenance of the 2010 SO<sub>2</sub> NAAQS, and proposes to approve the DFFOs into the SIP.

## **V. Review of Other Plan Requirements**

### *A. Emissions Inventory*

The emissions inventory and source emission rate data for an area serve as the foundation for air quality modeling and other analyses that enable states to: 1) estimate the degree to which different sources within a nonattainment area contribute to violations within the affected area; and 2) assess the expected improvement in air quality within the nonattainment area due to the adoption and implementation of control measures. As noted above, the state must develop and submit to EPA a comprehensive, accurate and current inventory of actual emissions from all sources of SO<sub>2</sub> emissions in each nonattainment area, as well as any sources located outside the nonattainment area which may affect attainment in the area. See CAA section 172(c)(3).

Ohio prepared an emissions inventory<sup>7</sup> using 2011 as the base year and 2018, the SO<sub>2</sub> NAAQS attainment year, as the future year.

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<sup>7</sup>The Emissions Modeling Clearinghouse (EMCH) provides emissions model input formatted inventories based on the latest versions of the NEI databases as well as the projection of these emissions. For Ohio's inventory, Ohio used 2011 and projected 2018 county level emissions data for area (non-

The inventories were prepared for six categories: electrical generating units (EGU), non-electrical generating units (non-EGU), non-road mobile sources, on-road mobile sources, area sources, and marine, air and rail sources. The 2011 base year inventory totaled 105,317.67 tpy for all six categories. Reflecting growth and known, planned, point source emission reductions, the 2018 future year inventory projection totaled 1,204.18 tpy. Emissions from the Globe facility were projected to remain constant between 2011 and 2018. The EGU category of this emissions inventory only contains the Muskingum River Power Plant's six emission sources (six coal-fired boilers). The 2018 inventory submitted by Ohio accounted for the closure of the Muskingum River Power Plant. As of April 2015, the Muskingum River Power Plant retired its coal-fired boilers, which resulted in projected 2018 EGU emissions of 0.0 tpy (104,113.16 tpy reduction from 2011), and thus would reduce Ohio's total six-category 2018 projected year inventory to 1,204.18 tpy. Ohio's emissions inventory indicates that SO<sub>2</sub> emissions were significantly and permanently reduced in the Muskingum River area of the SO<sub>2</sub> NAAQS attainment year.

*B. RACM/RACT and Emissions Limitations and Control Measures*

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point), on-road, marine/air/rail (MAR), and non-road sources from the 2011 NEI version 1-based Emissions Modeling Platform (2011v6) (<ftp://ftp.epa.gov/EmisInventory/2011v6/v1platform/>).

Section 172(c)(1) of the CAA requires states to adopt and submit all RACM, including RACT, as needed to attain the standards as expeditiously as practicable. Section 172(c)(6) requires the SIP to contain enforceable emission limitations and control measures necessary to provide for timely attainment of the standard. Ohio EPA's initial plan for attaining the 1-hour SO<sub>2</sub> NAAQS in the Muskingum River area was based only on emission reductions resulting from the Muskingum River Power Plant. Following discussions with EPA, Ohio determined that a combination of the permanent retirement of the Muskingum River Power Plant and additional emission limitations and emission reduction strategies implemented at the Globe facility will result in attainment of the NAAQS. Redevelopment of the Muskingum River Power Plant site would require new source review analysis and potentially additional emission controls to maintain SO<sub>2</sub> attainment in the Muskingum River area. Therefore, EPA concludes that the Muskingum River Power Plant's SO<sub>2</sub> emissions are currently zero and RACT requirements are satisfied at this source.

The initial Globe facility RACM evaluation and subsequent supplemental RACM evaluation[1] determined that RACM for control of SO<sub>2</sub> emissions from the electric arc furnaces (EAFs) at the Globe facility is pollution prevention through the use of low sulfur coal and low sulfur coke. In its evaluation of whether Ohio satisfied the requirement for RACM, in accordance with EPA

guidance, EPA evaluated whether Ohio had provided for sufficient control to provide for attainment.

Ohio's plan includes new emission limits at the Globe facility and requires timely compliance with such limits and other control measures required by the June 23, 2020 DFFOs. Ohio has determined that these measures suffice to provide for timely attainment. EPA concurs and proposes to find that the state has satisfied the requirements in sections 172(c)(1) and 172(c)(6) to adopt and submit all RACM and enforceable limitations and control measures as are needed to attain the standards as expeditiously as practicable.

*C. New Source Review (NSR)*

Section 172 of the CAA requires the state to have an adequate new source review program. EPA approved Ohio's nonattainment new source review rules on January 22, 2003 (68 FR 2909). Ohio's new source review rules, codified at OAC 3745-31, provide for appropriate new source review for SO<sub>2</sub> sources undergoing construction or major modification in the Muskingum River area without need for modification of the approved rules. The latest revisions to OAC Chapter 3745-31 were approved into Ohio's SIP on February 20, 2013 (78 FR 11748). EPA concludes that this requirement has been met for this area.

*D. RFP*

Section 172 of the CAA requires Ohio's Muskingum River nonattainment SIP to provide for reasonable further progress

toward attainment. For SO<sub>2</sub> SIPs, which address a small number of affected sources, requiring expeditious compliance with attainment emission limits can address the RFP requirement. EPA concludes that the state's revised limits and required additional control strategy measures for the Globe facility and the 2015 retirement of the Muskingum River Power Plant represent implementation of control measures as expeditiously as practicable. Accordingly, EPA proposes to find that Ohio's plan provides for RFP.

*E. Contingency Measures*

Section 172 of the CAA requires that nonattainment plans include additional measures which will take effect if an area fails to meet RFP or fails to attain the standard by the attainment date. As noted above, EPA guidance describes special features of SO<sub>2</sub> planning that influence the suitability of alternative means of addressing the requirement in section 172(c)(9) for contingency measures for SO<sub>2</sub>. An appropriate means of satisfying this requirement is for the state to have a comprehensive enforcement program that identifies sources of violations of the SO<sub>2</sub> NAAQS and for the state to undertake aggressive follow-up for compliance and enforcement. Ohio's plan provides for satisfying the contingency measure requirement in this manner. EPA concurs and proposes to approve Ohio's plan for meeting the contingency measure requirement in this manner.

## **VI. EPA's Proposed Action**

EPA is proposing to approve Ohio's SIP submission for attaining the 2010 1-hour SO<sub>2</sub> NAAQS and for meeting other nonattainment area planning requirements for the Muskingum River SO<sub>2</sub> nonattainment area. This SO<sub>2</sub> nonattainment plan includes Ohio's revised emission limits and attainment demonstration for the Muskingum River nonattainment area as submitted on June 23, 2020, and addresses the CAA requirements for reasonable further progress, RACM/RACT, base-year and projection-year emission inventories, and contingency measures. In conjunction with this proposed plan approval, EPA is also proposing to approve the DFFOs issued by Ohio to Globe on June 23, 2020, and submitted to EPA as a supplement to the original SIP submission.

EPA concludes that Ohio has appropriately demonstrated that the plan provisions provide for attainment of the 2010 1-hour primary SO<sub>2</sub> NAAQS in the Muskingum River nonattainment area and that the plan meets the other applicable requirements of section 172 of the CAA. EPA therefore is proposing to approve Ohio's nonattainment plan for the Muskingum River nonattainment area.

## **VII. Incorporation by Reference**

In this rule, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference the Ohio Director's Final Findings and Orders for the Globe facility, issued on June 23, 2020. EPA

has made, and will continue to make, these documents generally available through [www.regulations.gov](http://www.regulations.gov), and at the EPA Region 5 Office (please contact the person identified in the "**For Further Information Contact**" section of this preamble for more information).

#### **VIII. 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 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because it is not a significant regulatory action under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);

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

In addition, 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).

**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: September 24, 2020.

Kurt Thiede,  
Regional Administrator, Region 5.

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