6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2017-0621; FRL-9979-49-Region 9]

Approval and Promulgation of Air Quality Implementation Plans; Arizona; Nonattainment Plan for the Miami SO_2 Nonattainment Area

AGENCY: Environmental Protection Agency (EPA)

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve an Arizona state implementation plan (SIP) revision for attaining the 1-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS or "standard") for the Miami SO_2 nonattainment area (NAA). This SIP revision (hereinafter called the "Miami SO_2 Plan" or "Plan") includes Arizona's attainment demonstration and other elements required under the Clean Air Act (CAA or "Act"). In addition to an attainment demonstration, the Plan addresses the requirement for meeting reasonable further progress toward attainment of the NAAQS, reasonably available control measures and reasonably available control technology, base-year and projected emission inventories, enforceable emissions limitations and control measures, and contingency measures. The EPA proposes to conclude that Arizona has appropriately demonstrated that the Plan provides for attainment of the 2010 1-hour primary SO_2 NAAQS in the Miami SO_2 NAA by the attainment date of October 4, 2018 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-R09-OAR-2017-0621 at http://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The 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. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

FOR FURTHER INFORMATION, CONTACT: Krishna Viswanathan, EPA, Region IX, Air Division, Air Planning Office, (520) 999-7880 or viswanathan.krishna@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document whenever, "we," "us," or "our" is used, we mean the EPA.

Table of Contents

I. Why Was Arizona Required to Submit a Plan for the Miami SO_2 NAA?

On June 22, 2010, the EPA promulgated a new 1-hour primary SO_2 NAAQS of 75 parts per billion (ppb). This standard is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of daily maximum 1-hour average concentrations does not exceed 75 ppb, as determined in accordance with appendix T of 40 CFR part 50.[1] On August 5, 2013, the EPA designated a first set of 29 areas of the country as nonattainment for the 2010 SO_2 NAAQS, including the Miami SO_2 NAA within Arizona.[2] These area designations became effective on October 4, 2013. Section 191 of the CAA directs states to submit SIPs for areas designated as nonattainment for the SO_2 NAAQS to the EPA within 18 months of the effective date of the designation, *i.e.*, by no later than April 4, 2015, in this case (hereinafter called "plans" or "nonattainment plans"). Under CAA section 192, these plans are required to have measures that will help their respective areas attain the NAAQS as expeditiously as practicable, but no later than 5 years from the effective date of designation, which for the Miami SO_2 NAA is October 4, 2018.

For a number of areas, including the Miami SO_2 NAA, the EPA published a document on March 18, 2016, finding that Arizona and other pertinent states had failed to submit the required SO_2 nonattainment plan by the submittal deadline.[3] This finding, which became effective on April 18, 2016, initiated a deadline under CAA section 179(a) for the potential imposition of new source review offset and highway funding sanctions. Additionally, under CAA section 110(c), the finding triggered a requirement that the EPA promulgate a federal implementation plan (FIP) within two years of the effective date of the finding unless by that time the State had made the

[1] *See* 75 FR 35520, codified at 40 CFR 50.17(a)-(b).
[2] *See* 78 FR 47191, codified at 40 CFR part 81, subpart C.
[3] *See* 81 FR 14736.

necessary complete submittal and the EPA had approved the submittal as meeting applicable requirements.

In response to the requirement for SO_2 nonattainment plan submittals, the Arizona Department of Environmental Quality (ADEQ) submitted the Miami SO_2 Plan on March 9, 2017, and submitted associated final rules on April 6, 2017.[4] The EPA issued letters dated July 17, 2017, and September 26, 2017, finding the submittals complete and halting the sanctions clock under CAA section 179(a).[5]

The remainder of this preamble describes the requirements that nonattainment plans must meet in order to obtain EPA approval, provides a review of the Miami SO_2 Plan with respect to these requirements, and describes the EPA's proposed action on the Plan.

II. Requirements for SO_2 Nonattainment Plans

Nonattainment plans for SO_2 must meet the applicable requirements of the CAA, specifically CAA sections 110, 172, 191 and 192. The EPA's regulations governing nonattainment SIP submissions 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, the EPA issued comprehensive guidance on SIP revisions in the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990."[6] Among other things, the General Preamble addressed SO_2 SIP submissions and fundamental principles for SIP control strategies.[7] On April 23, 2014, the EPA issued recommended guidance for meeting the statutory requirements in SO_2 SIP

[4] Letters from Tim Franquist, ADEQ, to Alexis Strauss, EPA, dated March 8, 2017, and April 6, 2017. Although the cover letter for the Miami SO_2 Plan was dated March 8, 2017, the Plan was transmitted to the EPA on March 9, 2017.
[5] Letters from Elizabeth Adams, EPA, to Tim Franquist, ADEQ, dated July 17, 2017, and September 26, 2017.
[6] *See* 57 FR 13498 (April 16, 1992) (General Preamble).
[7] *Id*. at 13545-49, 13567-68.

submissions, in a document entitled, "Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions" ("2014 SO_2 Guidance"). In the 2014 SO_2 Guidance, the EPA described the statutory requirements for a complete nonattainment plan, which include: an accurate emissions inventory of current emissions for all sources of SO_2 within the NAA; an attainment demonstration; demonstration of RFP; implementation of RACM (including RACT); new source review, enforceable emissions limitations and control measures, and adequate contingency measures for the affected area.

For the EPA to fully approve a SIP revision as meeting the requirements of CAA sections 110, 172 and 191-192 and the EPA's regulations at 40 CFR part 51, the plan for the affected area needs to demonstrate to the EPA's satisfaction that each of the aforementioned requirements has been met. Under CAA section 110(l), the EPA may not approve a plan that would interfere with any applicable requirement concerning NAAQS attainment and RFP, or any other applicable requirement. Under CAA section 193, 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 that is a NAA for any air pollutant may be modified in any manner unless it insures equivalent or greater emission reductions of such air pollutant.

III. Attainment Demonstration and Longer-term Averaging

Section 172(c)(1) and 172(c)(6) of the CAA direct states with areas designated as nonattainment to demonstrate that the submitted plan provides for attainment of the NAAQS. 40 CFR part 51, subpart G further delineates the control strategy requirements that plans must meet, and the EPA has long required that all SIPs and control strategies reflect four fundamental principles of quantification, enforceability, replicability, and accountability.[8] SO_2 nonattainment

[8] *See* 57 FR at 13567-68 (April 16, 1992).

plans must consist of two components: (1) emission limits and other control measures that assure implementation of permanent, enforceable and necessary emission controls, and (2) a modeling analysis that meets the requirements of 40 CFR part 51, appendix W and demonstrates that these emission limits and control measures provide for timely attainment of the primary SO_2 NAAQS as expeditiously as practicable, but by no later than the attainment date for the affected area. In cases where the necessary emission limits have not previously been made a part of the state's SIP, or have not otherwise become federally enforceable, the plan needs to include the necessary enforceable limits in adopted form suitable for incorporation into the SIP in order for the plan to be approved by the EPA. 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 (*i.e.*, specifying clear, unambiguous and measurable requirements for which compliance can be practicably determined), replicable (*i.e.*, 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 (*i.e.*, source specific limits must be permanent and must reflect the assumptions used in the SIP demonstrations).

The EPA's 2014 SO_2 Guidance recommends that the emission limits be expressed as short-term average limits not to exceed the averaging time for the applicable NAAQS that the limit is intended to help maintain (*e.g.*, addressing emissions averaged over one or three hours), but it also describes the option to utilize emission limits with longer averaging times of up to 30 days as long as the state meets various suggested criteria.[9] The 2014 SO_2 Guidance recommends

[9] *See* 2014 SO_2 Guidance, pages 22 to 39

that—should states and sources utilize longer averaging times (such as 30 days)—the longer-term average limit should be set at an adjusted level that reflects a stringency comparable to the 1-hour average limit at the critical emission value shown to provide for attainment.

The 2014 SO_2 Guidance provides an extensive discussion of the 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_2 NAAQS. In evaluating this option, the 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.[10]

As specified in 40 CFR 50.17(b), the 1-hour primary SO_2 NAAQS is met at an ambient air quality monitoring site when the 3-year average of the annual 99th 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 99th percentile would be the fourth highest daily maximum 1-hour value. The 2010 SO_2 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 Envt'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 does not create a violation of the standard. Instead, at issue is whether a source operating in compliance with a properly set longer-term average could cause hourly exceedances, and if so what the resulting frequency and magnitude of such exceedances would be, and in particular whether the EPA can have reasonable confidence that a properly set longer-term average limit will provide that the three-year average of the annual fourth highest

[10] *Id*. pages 22 to 39. *See* also *id.* at Appendices B and D.

daily maximum hourly value will be at or below 75 ppb. A synopsis of the EPA's review of how to judge whether such plans "provide for attainment," based on modeling of projected allowable emissions and in light of the NAAQS' form for determining attainment at monitoring sites, follows.

For SO_2 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"[11] shows three, not four days with maximum hourly levels exceeding 75 ppb) is labeled the "critical emission value." The modeling process for identifying this critical emissions value inherently considers the numerous variables that affect ambient concentrations of SO_2, such as meteorological data, background concentrations, and topography. In the standard approach, the state would then provide for attainment by setting a continuously applicable 1-hour emission limit at this critical emission value.

The EPA recognizes that some sources have highly variable emissions due, for example, 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 critical emission value. The EPA also acknowledges the concern that longer-term emission limits can allow short periods with emissions above the critical emissions value, which, if coincident with meteorological conditions conducive to high SO_2 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

[11] An "average year" is used to mean a year with average air quality. While 40 CFR part 50, appendix T provides for averaging three years of 99th 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.

critical emission value. However, for several reasons, the EPA believes that the approach recommended in the 2014 SO_2 Guidance suitably addresses this concern. First, from a practical perspective, the 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. The 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 critical emissions value) and that takes the source's emissions profile into account. As a result, the EPA expects either form of emission limit to yield comparable air quality.

Second, from a more theoretical perspective, the 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 critical emission level, and in the longer-term average limit scenario, the source is presumed occasionally to emit more than the critical emission value but on average, and presumably at most times, to emit well below the critical emission value. In an "average year," compliance with the 1-hour limit is expected to result in three exceedance days (*i.e.*, three days with 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 exceedances would occur that would not occur in the 1-hour limit scenario (if emissions exceed the critical emission value at times when meteorology is conducive to poor air quality). However, this comparison must also factor in the likelihood that 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 critical emission value). Therefore, 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.

The following hypothetical example illustrates the aforementioned points. Suppose there is a source that always emits 1000 pounds of SO_2 per hour and these emissions result in air quality at the level of the NAAQS (*i.e.*, a design value of 75 ppb).[12] For this source, in an "average year", these emissions cause the five highest maximum daily average 1-hour concentrations to be 100 ppb, 90 ppb, 80 ppb, 75 ppb, and 70 ppb. Subsequently, 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.[13] Air quality will depend on what emissions happen on what critical hours, but suppose that emissions at the relevant times on these five days are 800 lb/hr, 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 concentrations of 80 ppb, 99 ppb, 40 ppb, 67.5 ppb, and 84 ppb. In this example, the fifth day would have an exceedance that would not otherwise have occurred, but the third and fourth days

[12] Design values are the metrics (*i.e.*, statistics) that are compared to the NAAQS levels to determine compliance. The design value for the primary 1-hour SO_2 NAAQS is the 3-year average of annual 99th percentile daily maximum 1-hour values for a monitoring site, , calculated as specified in 40 CFR part 50, appendix T, section 5.
[13] A nonzero background concentration would make the mathematics more difficult but would give similar results.

would not have exceedances that otherwise would have occurred. 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 the EPA conducted using a range of scenarios using actual plant data. As described in Appendix B of the 2014 SO_2 Guidance, the 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 the 2014 SO_2 Guidance, the 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 exceedances and better air quality than an emission profile with maximum allowable emissions under a 1-hour emission limit at the critical emission value.

The EPA must evaluate whether a longer-term average emission limit approach, which is likely to produce a net lower number of overall exceedances of 75 ppb even though it may produce some exceedances of 75 ppb on occasions when emissions are above the critical emission value, meets the requirements in sections 110(a)(1) and 172(c)(1) and (6) for state implementation plans to "provide for attainment" of the NAAQS. For SO_2, 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 nonattainment plan to fail and unexpectedly not result in attainment (*e.g.*, if meteorology occurs that is 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, the 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. From this perspective, in evaluating use of a 30-day average limit, the EPA must weigh the likely net effect on air quality. Such an evaluation must consider the risk that occasions with meteorology conducive to high concentrations will have elevated emissions leading to exceedances that would not otherwise have occurred, and it 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 critical emissions value. Additional policy considerations, such as in this case the desirability of accommodating real-world emissions variability without significant risk of violations, are also appropriate factors for the 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 the 2014 SO_2 Guidance, will result in attainment, the EPA believes as a general matter that such limits, if appropriately determined, can reasonably be considered to provide for attainment of the 2010 SO_2 NAAQS.

The 2014 SO_2 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 critical emission value) 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 may require use of an emission database from another source (*e.g.*, if compliance requires new controls). The recommended method involves using these data to compute a complete set of emission averages,

calculated according to the averaging time and averaging procedures of the prospective emission limitation. In this recommended method, the ratio of the 99th percentile among these long-term averages to the 99th 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.[14] The guidance also addresses a variety of related topics, such as the potential utility of setting supplemental emission limits (*e.g.*, mass-based limits) to reduce the likelihood and/or magnitude of elevated emission levels that might occur under the longer-term emission rate limit.

Preferred air quality models for use in regulatory applications are described in appendix A of the EPA's *Guideline on Air Quality Models* (40 CFR part 51, appendix W ("appendix W")).[15] In general, nonattainment SIP submissions must demonstrate the adequacy of the selected control strategy using the applicable air quality model designated in appendix W.[16] However, where an air quality model specified in appendix W is inappropriate for the particular application, the model may be modified or another model substituted, if the EPA approves the modification or substitution.[17] In 2005, the EPA promulgated the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) as the Agency's preferred near-field dispersion modeling for a wide range of regulatory applications addressing stationary sources (*e.g.*, in estimating SO_2 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_2 standard is provided in appendix A to the 2014

[14] For example, if the critical emission value is 1000 pounds of SO_2 per hour, and a suitable adjustment factor is determined to be 70 percent, the recommended longer-term average limit would be 700 pounds per hour.
[15] The EPA published revisions to appendix W on January 17, 2017, 82 FR 5182.
[16] 40 CFR 51.112(a)(1).
[17] 40 CFR 51.112(a)(2); appendix W, section 3.2.

SO_2 Guidance. 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 the 2014 SO_2 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_2 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 air quality dispersion modeling (*see* appendix W) 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_2 NAAQS. For a short-term (*i.e.,* 1-hour) standard, the 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 NAA which may affect attainment in the area) is technically appropriate. This approach is also efficient and effective in demonstrating attainment in NAAs because it takes into consideration combinations of meteorological and source operating conditions that may contribute to peak ground-level concentrations of SO_2.

The meteorological data used in the analysis should generally be processed with the most recent version of AERMET, which is the meteorological data preprocessor for AERMOD. Estimated concentrations should include ambient background concentrations, follow the form of the standard, and be calculated as described in the EPA's August 23, 2010 clarification memo.[18]

IV. Review of Modeled Attainment Demonstration

The following discussion evaluates various features of the modeling that Arizona used in its attainment demonstration.

[18] "Applicability of Appendix W Modeling Guidance for the 1-hr SO_2 National Ambient Air Quality Standard" (August 23, 2010).

A. Model Selection

Arizona's attainment demonstration used a combination of AERMOD and the Buoyant Line and Point Source model (BLP).[19] The State used AERMOD version 14134 ("v14134"), the regulatory version at the time it conducted its nonattainment planning, for all emission sources except for those over the Freeport-McMoRan Miami Incorporated (FMMI) smelter ("Miami Smelter" or "Smelter") building roofline. For AERMOD-only sources, the State used regulatory default options. To represent emissions from the Smelter roofline, the State used a combination of AERMOD v14134 and BLP ("BLP/AERMOD Hybrid Approach"). BLP was used to estimate hourly final plume rise and sigma-z (a measure of vertical size of the plume), which were then used to define volume sources in AERMOD. The State later repeated the simulation using AERMOD version 16216r, the current regulatory version, and showed no difference in predicted annual 4th high daily SO_2 hourly concentrations from the previous version.[20]

The copper smelting process produces large amounts of excess heat. Fugitive SO_2 is released from the Miami Smelter building roofline at an elevated temperature and velocity, leading to enhanced plume rise. AERMOD v14134 does not account for buoyant plume rise from line sources. At the time of preparation of the Miami SO_2 Plan, BLP was identified in appendix W as the preferred model for representing buoyant line sources.[21] As noted above, where an air quality model specified in appendix W is inappropriate for the particular application, the model may be modified or another model substituted if the EPA approves the

[19] *See* Appendix C to Miami SO_2 Plan, "Modeling Technical Support Document for the Miami Sulfur Dioxide (SO_2) Nonattainment Area" (Modeling TSD).
[20] See letter from Farah Mohammadesmaeili, ADEQ, to Rynda Kay, EPA Region 9, dated March 16, 2018.
[21] The EPA has since approved AERMOD, with newly incorporated BLP algorithms, as the preferred model for buoyant line sources. *See* 82 FR 5182.

modification or substitution.[22] Appendix W also specifies that for all such approvals, the EPA regional office will coordinate and seek the concurrence of the EPA's Model Clearinghouse.[23] Arizona has sought approval to use the BLP/AERMOD Hybrid Approach under appendix W, paragraph 3.2.2(b), condition (2), which allows for use of an alternative model where "a statistical performance evaluation has been conducted using measured air quality data and the results of that evaluation indicate the alternative model performs better for the given application than a comparable model in appendix A." The State provided a statistical performance evaluation using measured air quality data that demonstrates the alternative model performs better than the preferred model for this application. Additionally, the State provided technical justification for the validity of the approach for the meteorology and topography affecting this area. EPA Region 9 requested and received concurrence from the EPA's Model Clearinghouse that the alternative model is appropriate for this particular application.[24, 25] For the reasons described in the concurrence documents, the EPA finds this selection appropriate and proposes to approve use of this alternative under 40 CFR 51.112(a)(2).

The modeling domain was centered on the Miami Smelter facility and extended to the edges of the Miami SO_2 NAA. A grid spacing of 25 meters was used to resolve AERMOD model concentrations along the ambient air boundary surrounding the Smelter and increased toward the edges of the NAA. Receptors were excluded within the ambient air boundary, which is defined by the facility's physical fence line, except in several segments where there is no fence

[22] 40 CFR 51.112(a)(2); Appendix W, section 3.2.
[23] *Id.* section 3.0(b).
[24] Further details can be found in "Concurrence Request for Approval of Alternative Model: BLP/AERMOD Hybrid Approach for Modeling Buoyant Roofline Sources at the FMMI Copper Smelter in Miami, AZ" (March 12, 2018).
[25] "Model Clearinghouse Review of a BLP/AERMOD Hybrid Alternative Model Approach for Modeling Buoyant Roofline Sources at the FMMI Copper Smelter in Miami, AZ" (March 26, 2018).

and the State inspected and concluded steep topography precludes public access. We agree with the State's conclusion that the model receptors placed by the State correspond to ambient air.

B. Meteorological Data

Arizona conducted its modeling using three years of on-site surface meteorological data collected by FMMI between 2010 and 2013 at a 30.5-meter tower located approximately 0.32 kilometer (km) southwest of the Smelter. The State provided annual audit reports for the monitoring station to document that the station's installation and data collection were consistent with the EPA recommendations.[26, 27] Cloud cover and relative humidity were not measured at the onsite location and were taken from the National Weather Service (NWS) station at Safford Airport (Weather Bureau Army Navy (WBAN) 93084), which is 132 km to the southeast of the Smelter and representative of cloud cover and relative humidity to the Miami SO_2 NAA. The State used upper air data from the NWS station in Tucson, Arizona (WBAN 23160), which is 146 km south of the Smelter. The State used AERMET v14134 to process meteorological data for use with AERMOD and the Meteorological Processor for Regulatory Models for use with BLP.

The State used AERSURFACE version 13016 using data from the onsite location and the NWS Safford site to estimate the surface characteristics (*i.e.*, albedo, Bowen ratio, and surface roughness (z_o)). The State estimated z_o values for 12 spatial sectors out to 1 km at a seasonal temporal resolution for dry conditions. We conclude that the State appropriately selected meteorological sites, properly processed meteorological data, and adequately estimated surface characteristics.

[26] See e-mail from Farah Mohammadesmaeili, ADEQ, to Rynda Kay, EPA Region 9, dated March 16, 2018.
[27] "EPA Meteorological Monitoring Guidance for Regulatory Modeling Applications." Publication No. EPA-454/R-99-005 (February 2000).

The State used the Auer (1978) land use method, with land cover data from the United States Geological Survey National Land Cover Data 1992 archives, to determine that the 3-km area around the Miami Smelter is composed of 97.3% rural land types. Therefore, the State selected rural dispersion coefficients for modeling. We agree with the State's determination that the facility should be modeled as a rural source.

C. Emissions Data

Arizona completed a modeling emissions inventory for sources within the Miami SO_2 NAA and a 50-km buffer zone extending from the NAA boundary based on 2009-2011 data. In 2011, the Miami Smelter emitted 2,545 tpy SO_2, accounting for more than 99.5% of SO_2 emissions in the NAA. Other SO_2 sources in the NAA include the Carlota Copper Pinto Valley Mine (2011 SO_2 emissions of 32 tpy) and the Freeport McMoRan Miami Mine Smelter (2011 SO_2 emissions of 7 tpy), located 13 km and 3.3 km southwest of the Miami Smelter, respectively. No other sources had 2011 SO_2 emissions greater than 1 tpy SO_2 in the NAA. The ASARCO LLC (ASARCO) copper smelter is located 46 km south of the Miami Smelter and had 2011 SO_2 emissions of 21,747 tpy. The two smelters are separated by large mountains, making these two airsheds distinct. The State modeled the ASARCO stack emissions and determined that the modeled concentrations from that source were negligible in the Miami SO_2 NAA. The State determined that other than the Miami Smelter, no sources were drivers of nonattainment. The State also determined that no other sources have the potential to cause significant concentration gradients in the vicinity of the Miami SO_2 NAA affected by the Miami Smelter. Additionally, the State determined that all nearby sources are sufficiently captured by background monitored concentrations. We agree with the State's determination that only Miami Smelter emissions need to be included in the attainment modeling.

FMMI is undertaking substantial upgrades to the Smelter that will reduce SO_2 and other pollutant emissions (*see* section 4.3 of the Miami SO_2 Plan). The State estimated post-upgrade maximum 1-hour SO_2 emissions and used those estimates to model all facility emission sources subject to additional control. The State provided a justification for the control efficiencies assumed in the adjustments, which we reviewed and agree are reasonable. [28] The State also modeled additional sources within the Smelter complex, including intermittent emergency generators, smelter building leaks, slag storage area, and other small sources, which will not be subject to further control. These sources collectively account for an additional 8 pounds per hour (lb/hr) of SO_2 emissions, which we agree were appropriately calculated.[29] The resulting hourly emission rates used in the attainment modeling are shown in Table 1. Together these emissions accounted for a facility-wide critical emission value of 393 lb/hr (rounded to nearest whole number). The facility-wide critical emission value was used to derive a single facility-wide 30-day average emission limit, as described in section IV.D below.

Table 1. Projected Maximum Smelter SO_2 Emissions after Additional Controls

Source	SO_2 Emissions (lb/hr)
Acid Plant Tail Gas Stack	3.2
Vent Fume Stack	13.0
Aisle Scrubber Stack- Normal Operations	14.3
Aisle Scrubber Stack- Bypass Operations	275.0
Isa Roof Vent	31.8
ELF Roof Vent	14.2
Converter Roof Vent	25.6
Anode Roof Vent	8.0
Additional Sources	8.0
Total	**393**

[28] *See* "FmmiReponseToEpaReview-20160721-Final w Signature.pdf" and "FMMI – Emissions-Inventory – 2015-07-13 – Past-Actuals-Using-Sulfur-Balance.xlsx."
[29] *See* Appendix K of Modeling TSD.

The State asserts that a single facility-wide emission limit will adequately regulate emissions from each Smelter source. The State provided an analysis of the Smelter's emissions variability, which showed that, due to the batch nature of the smelting process, emissions are independent of one another and therefore do not peak at the same time. This analysis indicates that the collection of future maximum potential emission rates for each source listed in Table 1 is a conservative estimate of the worst-case emission distribution at the Smelter.[30] Additionally, the State conducted a sensitivity analysis increasing the modeled emission rate of each source (except the bypass stack) by 21%, while proportionally decreasing the emission rate of the remaining sources so that total facility-wide emissions remained constant.[31] The resulting modeled design values were within 1% of those predicted by the attainment modeling and all below the NAAQS. These analyses suggest that variations in the location of peak emissions will not affect attainment so that a facility-wide limit would be sufficiently protective. We agree with the State that a facility-wide emission limit is appropriate in this case.

The State also adequately characterized source parameters for the emissions described above, as well as the Miami Smelter's building layout and location in its modeling. Where appropriate, the AERMOD component Building Profile Input Program for Plume Rise Model Enhancements (BPIPPRM) was used to assist in addressing building downwash.

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.[32] The numeric emission limit on which Arizona's Plan relies is expressed as a 30-day average limit.

[30] *See* Appendix E of Modeling TSD.
[31] *See* Appendix I of Modeling TSD.
[32] *See* 57 FR at 13567-68.

Therefore, part of the review of Arizona's Plan must address the use of longer-term average limits, both with respect to the general suitability of using such limits for this purpose and with respect to whether the particular numeric emission limit included in the Plan has been suitably demonstrated to provide for attainment. The first subsection that follows addresses the enforceability of the limits in the Plan (including both the numeric 30-day emission limit as well as operation and maintenance requirements, which also constitute emission limits),[33] and the second subsection that follows addresses the 30-day limit in particular.

1. Enforceability

The emission limits for the Miami Smelter are codified in the Arizona Administrative Code, Title 18, Chapter 2, Article 13, Section R18-2-C1302 ("Rule C1302"). After following proper public notice procedures, Rule C1302 was adopted by the State of Arizona through a final rulemaking in the Arizona Administrative Register. To ensure that the regulatory document was consistent with procedures for incorporating by reference, the EPA subsequently requested that ADEQ provide the version of this regulation that was codified in the Arizona Administrative Code as a supplement to the original SIP revision.

Subsection (A)(2) of Rule C1302 ("Effective Date") states that, "(e)xcept as otherwise provided, the provisions of this Section shall take effect on the later of the effective date of the Administrator's action approving it as part of the state implementation plan or January 1, 2018." Accordingly, the majority of the rule's requirements will come into effect upon final approval by the EPA of the rule. We proposed to approve Rule C1302 into the Arizona SIP on March 30,

[33] *See* CAA section 302(k)(defining "emission limit" to include "any requirement relating to the operation or maintenance of a source to assure continuous emission reduction.").

2018[34] and we intend to finalize action on the rule prior to taking final action on the Miami SO_2 Plan.

Rule C1302's 30-day rolling average emission limit of 142.45 lbs/hr applies to emissions from the tail gas stack, vent fume stack, aisle scrubber stack, and bypass stack, as well as any fugitives that may come from the roofline of the smelter structure. To ensure that all emission sources subject to the facility-wide limit are accurately monitored and reported, the rule also requires that continuous monitoring systems be installed on each of the aforementioned stacks and at the roofline to measure fugitive emissions. In addition, under subsection (E)(8) of Rule C1302, FMMI is required to develop and implement a roofline fugitive emissions monitoring plan for review and approval by ADEQ and the EPA. Furthermore, FMMI is required to develop and submit for EPA review and approval an Operations & Maintenance plan for capture and control systems at the smelter to ensure that these systems are functioning properly and are adequately maintained in order to minimize fugitive emissions. The rule also includes provisions for determining compliance with the emission limit, and the necessary monitoring, recordkeeping, and reporting requirements to ensure that the regulation as a whole is enforceable. As noted above, the EPA proposed to approve this regulation into the Arizona SIP in a separate action. Further discussion on the enforceability for Rule C1302 is included in the Technical Support Document (TSD) for that action.[35]

In accordance with EPA guidance on the use of federally enforceable limits, we find that the limits in Rule C1302 will be enforceable upon our approval of the rule, are supportive of attainment, and are suitable for inclusion into the Arizona SIP. We also find that the 30-day

[34] 83 FR 13716.
[35] "Technical Support Document for the EPA's Rulemaking for the Arizona State Implementation Plan; Arizona Administrative Code**,** Title 18, Chapter 2, Article 13**,** Part C – Miami, Arizona, Planning Area**;** R18-2-C1302 – Limits on SO_2 Emissions from the Miami Smelter" (March 2018) (Rule C1302 TSD).

average limit is set at a lower level than the critical emission value used in the attainment demonstration; this relationship is discussed in detail in the following section.

2. Longer-term average limits

The State modeled emissions from the Miami Smelter as described in Section IV.C of this notice to determine a facility-wide critical emission value of 393 lb/hr. Arizona demonstrated that the Smelter's "Additional Sources" listed in Table 1, which account for 8 lb/hr, have a negligible contribution to the predicted design value concentration and asserted that these emissions need not be a part of the facility's enforceable emission limit.[36] As such, Arizona used an adjusted critical emission value of 385 lb/hr (*i.e.*, 393 lb/hr minus 8 lb/hr) in the calculation of the facility's longer-term average limit.

To derive a longer-term average emission limit, the State used hourly SO_2 data collected using continuous emission monitors from May 2013 to October 2014, adjusted to account for facility upgrades and increased production capacity, as a representative emission distribution for the Smelter's future configuration. The State summed the emissions from all point and fugitive sources, which yielded the hourly emissions data that provided for calculation of the 30-day average emission rates used to determine an appropriate adjustment factor. The 99th percentile of the 30-day and 1-hour SO_2 emission rates were 102.4 lb/hr and 276.7 lb/hr, respectively. The ratio of these two values (*i.e.*, the computed adjustment factor) was 0.37. Compared to the national average adjustment factors (*i.e.*, 0.63-0.79) estimated for Electrical Generating Units (EGUs) and listed in Table 1 of Appendix D of the 2014 SO_2 Guidance, the ratio reflects the high variability in Smelter emissions. Although the adjustment factor is out of the range derived for EGUs, this is expected, as smelters exhibit a greater range of variability due to feed and

[36] *See* Appendix K of the Modeling TSD.

operational variability. In general, we expect operations with large variability to require bigger adjustments (lower adjustment factors) and result in lower longer-term average emissions limits relative to the 1-hour critical emission value. The adjustment factor was multiplied by the adjusted critical emission value (*i.e.*, 385 lb/hr) to derive a longer-term 30-day average emission limit of 142.45 lb/hr. Based on a review of the State's submittal, the EPA believes that the 30-day average limit for the Miami Smelter provides a justified alternative to establishing a 1-hour average emission limit for this source.

The 2014 SO_2 Guidance does not directly address the establishment of limits governing the sum of emissions from multiple units, and the it provides no specific recommendations for a methodology for determining appropriate adjustment factors for deriving comparably stringent longer-term limits in such cases. Nevertheless, the 2014 SO_2 Guidance recommends computing adjustment factors based on emissions data that have been determined in accordance with the methods used to determine compliance with the limit. Therefore, in this case, it is appropriate to use facility total emissions data as the basis for a statistical analysis of the degree of adjustment warranted in determining a 30-day facility-wide emission limit that is comparably stringent to the plant total 1-hour emission limit that would otherwise have been set.

The State has used an appropriate data base and the methodology specified in the 2014 SO_2 Guidance to derive an emission limit that has comparable stringency to the 1-hour average limit that the State determined would otherwise have been necessary to provide for attainment. While the 30-day average limit allows occasions in which emissions may be higher than the level that would be allowed with the 1-hour limit, the State's limit compensates by requiring average emissions to be lower than the level that would otherwise have been required by a 1-hour average limit. For reasons described above and explained in more detail in the 2014 SO_2

Guidance, the EPA finds that appropriately set longer-term average limits provide a reasonable basis by which nonattainment plans may provide for attainment. Based on our review of this general information as well as the particular information in Arizona's Plan, the EPA finds that the 30 day-average limit will provide for attainment of the SO_2 standard in the Miami SO_2 NAA.

E. Background Concentrations

Arizona selected background SO_2 concentrations using ambient air measurements recorded between 2009 and 2013 during Smelter shutdown periods at the Jones Ranch (Air Quality System (AQS) ID: 04-007-0011), Townsite (AQS ID: 04-007-0012) and Ridgeline (AQS ID: 04-007-0009) monitors. The State calculated the 5-year averages of the daily maximum 99^{th} percentile 1-hour average SO_2 during Smelter shutdowns at each site, which were 8.1, 6.7, and 7.2 ppb, respectively. The State chose to use the Jones Ranch value of 8.1 ppb (21.2 micrograms per cubic meter ($\mu g/m^3$)) as background concentrations of SO_2 to add to modeled design values. We agree that the State appropriately and conservatively calculated background concentrations.

F. Summary of Results

The EPA has reviewed Arizona's submitted modeling supporting the attainment demonstration for the Miami SO_2 NAA and has preliminarily determined that this modeling is consistent with CAA requirements, appendix W and the 2014 SO_2 Guidance. The State's modeling indicates that with a critical emission value of 393 lb/hr, the highest predicted 99^{th} percentile daily maximum 1-hour concentration within the Miami SO_2 NAA would be 194.1 $\mu g/m^3$, below the NAAQS level of 196.4 $\mu g/m^3$ (75 ppb). This modeled concentration includes the background concentration of SO_2 of 21.2 $\mu g/m^3$. The modeling indicates that the Smelter upgrades and resulting 30-day emission limit of 142.45 lb/hr are sufficient for the Miami SO_2 NAA to attain the 2010 SO_2 NAAQS.

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 estimate the degree to which different sources within a NAA contribute to violations within the affected area and assess the expected improvement in air quality within the NAA due to the adoption and implementation of control measures. As noted above, the state must develop and submit to the EPA a comprehensive, accurate and current inventory of actual emissions from all sources of SO_2 emissions in each NAA, as well as any sources located outside the NAA which may affect attainment in the area.[37]

The base year inventory establishes a baseline that is used to evaluate emission reductions achieved by the control strategy and to assess reasonable further progress requirements. Arizona used 2011 as the base year for emission inventory preparation. At the time of preparation of the Plan, 2011 reflected the most recent triennial National Emission Inventory, supported the requirement for timeliness of data, and was also representative of a year with violations of the primary SO_2 NAAQS. Arizona reviewed and compiled actual emissions of all sources of SO_2 in the NAA in the 2011 base year emission inventory. In addition to developing an emission inventory of SO_2 emission sources within the NAA, Arizona also provided an SO_2 emission inventory for those emission sources within a 50 kilometer buffer zone of the NAA. Table 2 below summarizes 2011 base year SO_2 emissions inventory data for the NAA, categorized by emission source type (rounded to the nearest whole number).

Table 2. 2011 Base Year SO_2 Emission Inventory for the Miami SO_2 NAA (tons/year)

[37] *See* CAA section 172(c)(3).

Year	Point Source	Nonpoint Source	Mobile Source (Onroad)	Mobile Source (Non-road)	Total
2011	2,583	13	2	>1	**2,598**

As seen above, the majority of SO_2 emissions in the 2011 base year inventory can be attributed to the point source category. Emissions for this category are provided in further detail in Table 3 below.

Table 3. 2011 Base Year SO_2 Emission Inventory (Point Sources)

Point Source	Emissions (tons/year)
Freeport McMoRan Miami Smelter	2,545
Freeport McMoRan Miami Mine	7
BHP Copper Pinto Valley Miami Unit	>1
BHP Copper Pinto Valley Mine	>1
Carlota Copper Pinto Valley Mine	31
Total	**2,583**

A projected attainment year emission inventory should also be included in the SIP submission according to the 2014 SO_2 Guidance. This emission inventory should include, in a manner consistent with the attainment demonstration, estimated emissions for all SO_2 emission sources that were determined to have an impact on the affected NAA for the projected attainment year. Table 4 below summarizes Arizona's projected 2018 SO_2 emissions inventory data for the NAA, categorized by source type. 2011 base year emissions, as well as the projected change between base year and projected year emissions, are also summarized below (rounded to nearest whole number).

Table 4. Projected 2018 SO_2 Emission Inventory for the Miami SO_2 NAA (tons/year)

Year	Point Source	Nonpoint Source	Mobile Source (Onroad)	Mobile Source (Non-road)	Total
2011	2,583	13	2	>1	**2,598**
2018	685	13	2	>1	**700**
Change	-1,898	0	0	0	**-1,898**

As seen above, both the majority of SO_2 emissions in the projected 2018 emission inventory, as well as the majority of projected SO_2 emission reductions, can be attributed to point sources. Emissions for this category are provided in further detail in Table 5 below.

Table 5. Projected 2018 SO_2 Emission Inventory (Point Sources)

Point Source	2011 Base Year Emissions (tons/year)	2018 Projected Year Emissions (tons/year)	Change
Freeport McMoRan Miami Smelter	2,545	660	-1,885
Freeport McMoRan Miami Mine	7	8	1
BHP Copper Pinto Valley Miami Unit	>1	>1	0
BHP Copper Pinto Valley Mine	>1	14	13
Carlota Copper Pinto Valley Mine	31	3	-28
Total	**2,583**	**685**	**-1,898**

As seen above, the single largest decrease in emissions is attributed to the Miami Smelter. The projected 2018 SO_2 emissions for the Miami Smelter are consistent with allowable emission limits for the Miami Smelter that Arizona is requesting that the EPA approve into the SIP. For other point sources, projected 2018 SO_2 emissions were determined by Arizona based on existing permit allowable SO_2 limits or other federally enforceable SO_2 emission limits.

The EPA has evaluated Arizona's 2011 base year inventory and projected 2018 emission inventory for the Miami SO_2 NAA, and considers these inventories to have been developed consistent with EPA guidance. As a result, the EPA is proposing to determine that the Miami SO_2 Plan meets the requirements of CAA Section 172(c)(3) and (4) for the Miami SO_2 NAA.

B. Reasonably Available Control Measures and Reasonably Available Control Technology

Arizona's Plan for attaining the 1-hour SO_2 NAAQS in the Miami SO_2 NAA is based on implementation of controls at the Miami Smelter. ADEQ conducted a reasonably available

control measures and reasonably available control technology (RACM/RACT) analysis in the Miami SO_2 Plan, comparing the requirements at the Miami Smelter with controls in use at other large sources of SO_2 to identify potentially available control measures, eliminating any measures that were not feasible at the Miami Smelter or not more stringent than those measures already being implemented. ADEQ then compared the proposed control measures for the Miami Smelter with the measures not eliminated in the first step of the RACM/RACT analysis, and concluded that the proposed control measures would be more stringent. We provide an assessment below of whether ADEQ's RACM/RACT analysis is consistent with EPA guidance.

The State's RACM/RACT analysis can be found in section 4.4.3 of the Miami SO_2 Plan. ADEQ compared SO_2 controls at eight different facilities and found that all of these units used an acid plant to recover or reduce SO_2 emissions. Some of these facilities also used acid absorption equipment (wet and dry scrubbers) to further control SO_2. ADEQ also noted that enhanced capture systems (such as additional hooding, improved ventilation systems and enhanced ductwork) at the Miami Smelter would contribute to reducing uncontrolled fugitive emissions from the smelter structure. While enhanced capture does not inherently reduce SO_2 emissions, these capture systems will route a greater amount of gas to control devices that do reduce SO_2 emissions.

The State concluded that upgrades to the acid plant, the installation of additional and improved scrubbers, and the installation of improved capture systems at the IsaSmelt furnace, electric furnace, converter department, and anode casting operations at the Miami Smelter constituted RACM/RACT and would allow the facility to meet the 142.45 lb/hr emission limit and other requirements outlined in Rule C1302. As explained in the Rule C1302 TSD, we agree that Rule C1302 generally requires implementation of reasonable controls for the Miami

Smelter. We also find that it was appropriate for Arizona to focus its RACM/RACT analysis solely on this source, given that the Miami Smelter accounted for more than 99.5 percent of SO_2 emissions in the NAA during the 2011 base year.[38]

As noted above, most of the requirements of Rule C1302 will become enforceable only after final approval of the rule by the EPA. However, the Plan itself provides that the owner or operator of the Miami Smelter will complete construction of the relevant control measures no later than January 1, 2018, including steps that ADEQ will undertake if the owner or operator failed to complete construction by January 1, 2018.[39] On December 19, 2017, FMMI notified the EPA and ADEQ that it had completed construction of the SO_2 capture and control system upgrades and had initiated associated commissioning activities.[40]

As explained above, we find that Arizona has demonstrated that implementation of the control measures required under the Plan are sufficient to provide for attainment of the NAAQS. Given that these controls have already been installed and will be fully operational prior to October 4, 2018, we propose to conclude that the State has satisfied the requirement in section 172(c)(1) and (6) to adopt and submit all RACM and emissions limitations and control measures as needed to attain the standards as expeditiously as practicable and the requirement in section 192(b) to provide for attainment by October 4, 2018.

C. New Source Review

On November 2, 2015, the EPA published a final limited approval and limited disapproval of revisions to ADEQ's new source review (NSR) rules.[41] On May 4, 2018, the EPA approved additional rule revisions to address many of the deficiencies identified in the 2015

[38] Miami SO_2 Plan, Section 3.1.1, page 33.
[39] *Id.*, page 84.
[40] Letter from Byron Belew, FMMI, to Alexis Strauss, EPA, and Timothy Franquist, ADEQ (December 19, 2017).
[41] 80 FR 67319 (November 2, 2015).

action.[42] Collectively these rule revisions will ensure that ADEQ's rules provide for appropriate NSR for SO_2 sources undergoing construction or major modification in the Miami SO_2 NAA without need for further modification. Therefore, the EPA concludes that the NSR requirement has been met for this area. We note that Rule C1302 subsection (I) indicates that the smelter emission limits contained in the rule shall be determined to be SO_2 RACT for purposes of minor NSR requirements. This provision does not interfere with or adversely affect existing nonattainment NSR rules.

D. Reasonable Further Progress

In the Miami SO_2 Plan, Arizona explained its rationale for concluding that the Plan meets the requirement for reasonable further progress (RFP) in accordance with EPA guidance. Specifically, Arizona's rationale is based on EPA guidance interpreting the RFP requirement being satisfied for SO_2 if the Plan requires "adherence to an ambitious compliance schedule" that "implement[s] appropriate control measures as expeditiously as practicable." Arizona noted that its Plan provides for attainment as expeditiously as practicable, *i.e.*, by October 4, 2018, and finds that the Plan thereby satisfies the requirement for RFP.

Arizona finds that the Miami SO_2 Plan requires affected sources to implement appropriate control measures as expeditiously as practicable in order to ensure attainment of the standard by the applicable attainment date. Arizona concludes that the Plan therefore provides for RFP in accordance with the approach to RFP described in the 2014 SO_2 Guidance. The EPA concurs and proposes to conclude that the Plan provides for RFP.

E. Contingency Measures

[42] 83 FR 19631 (May 4, 2018).

In the Miami SO_2 Plan, Arizona explained its rationale for concluding that the Plan meets the requirement for contingency measures. Specifically, Arizona relies on the 2014 SO_2 Guidance, which notes the special circumstances that apply to SO_2 and explains on that basis why the contingency requirement in CAA section 172(c)(9) is met for SO_2 by having a comprehensive program to identify sources of violations of the SO_2 NAAQS and to undertake an aggressive follow-up for compliance and enforcement of applicable emissions limitations. Arizona stated that it has such an enforcement program pursuant to state law in Arizona Revised Statutes (ARS) sections 49-461, 49-402, 49-404 and 49-406. Arizona also describes the process under State law to apply contingency measures for failure to make RFP and/or for failure to attain the SO_2 NAAQS by the attainment date and concludes that Arizona's Plan satisfies contingency measure requirements. The EPA concurs with this assessment. We note that the EPA has approved ARS 49-402, 49-404, 49-406 and 49-461 into the Arizona SIP. [43] In addition, we have approved ARS 49-422(A) ("Powers and Duties"), which authorizes ADEQ to require sources of air contaminants to "monitor, sample or perform other studies to quantify emissions of air contaminants or levels of air pollution that may reasonably be attributable to that source" for purposes of determining whether the source is in violation of a control requirement. We have also approved ARS 49-460 through 49-463, which authorize ADEQ to request compliance-related information from sources, to issue orders of abatement upon reasonable cause to believe a source has violated or is violating an air pollution control requirement, to establish injunctive relief, to establish civil penalties of up to $10,000 per day per violation, and to conduct criminal enforcement, as appropriate through the Attorney General.[44] Therefore, we agree that the Arizona SIP establishes a comprehensive enforcement program, allowing for the identification of

[43] *See* 40 CFR 52.120(e), Table 3.
[44] 77 FR 66398 (November 5, 2012).

sources of SO_2 NAAQS violations and aggressive compliance and enforcement follow-up. We propose to approve Arizona's Plan as meeting the contingency measure requirement in this manner.

VI. Conformity

Generally, as set forth in section 176(c) of the CAA, conformity requires that actions by federal agencies do not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. General conformity applies to federal actions, other than certain highway and transportation projects, if the action takes place in a nonattainment area or maintenance area (*i.e.*, an area which submitted a maintenance plan that meets the requirements of section 175A of the CAA and has been redesignated to attainment) for ozone, particulate matter, nitrogen dioxide, carbon monoxide, lead, or SO_2. The EPA's General Conformity Rule establishes the criteria and procedures for determining if a federal action conforms to the SIP.[45] With respect to the 2010 SO_2 NAAQS, federal agencies are expected to continue to estimate emissions for conformity analyses in the same manner as they estimated emissions for conformity analyses under the previous NAAQS for SO_2. The EPA's General Conformity Rule includes the basic requirement that a federal agency's general conformity analysis be based on the latest and most accurate emission estimation techniques available.[46] When updated and improved emissions estimation techniques become available, the EPA expects the federal agency to use these techniques.

Transportation conformity determinations are not required in SO_2 nonattainment and maintenance areas. The EPA concluded in its 1993 transportation conformity rule that highway and transit vehicles are not significant sources of SO_2. Therefore, transportation plans,

[45] 40 CFR 93.150 to 93.165.
[46] 40 CFR 93.159(b).

transportation improvement programs and projects are presumed to conform to applicable implementation plans for SO_2.[47]

VII. The EPA's Proposed Action

The EPA is proposing to approve the Miami SO_2 Plan, which includes Arizona's attainment demonstration for the Miami SO_2 NAA and addresses requirements for RFP, RACT/RACM, base-year and projected emission inventories, and contingency measures. The EPA proposes to determine that the Miami SO_2 Plan meets applicable requirements of sections 110, 172, 191 and 192 of the CAA for the 2010 SO_2 NAAQS.

The EPA is taking public comments for thirty days following the publication of this proposed action in the **Federal Register**. We will take all relevant comments into consideration in our final action.

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 Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed 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 proposed action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

[47] *See* 58 FR 3776 (January 11, 1993).

- 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 the 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 the 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.

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

Dated: June 4, 2018.

Michael B. Stoker,
Regional Administrator,
EPA Region IX.

[FR Doc. 2018-12913 Filed: 6/14/2018 8:45 am; Publication Date: 6/15/2018]