6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2017-0621; FRL-9990-40-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: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving an Arizona state implementation plan (SIP) revision for attaining the 2010 1-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS or "standard") for the Miami, Arizona 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 requirements 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 concludes 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 meets the other applicable requirements under the CAA.

DATES: This final rule is effective on **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-R09-OAR-2017-0621. All documents in the docket are listed on the *https://www.regulations.gov* web site. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available through *https://www.regulations.gov*.

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

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I. Background

On June 22, 2010, the EPA promulgated a new 1-hour primary SO_2 NAAQS of 75 parts per billion (ppb) (hereinafter called "the 2010 SO_2 NAAQS" or "the SO_2 NAAQS"). This standard is met at an ambient air quality monitoring site when the 3-year average of the annual 99^{th} 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 29 areas of the country as nonattainment for the 2010 SO_2 NAAQS, including the

[1] 75 FR 35520, codified at 40 CFR 50.17(a)-(b).

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 SIP revisions 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., in this case by no later than April 4, 2015. Under CAA section 192, these SIP submissions are required to include measures that will bring the nonattainment area into attainment of the NAAQS as expeditiously as practicable, but no later than five years from the effective date of designation. The attainment date for the Miami SO_2 NAA was October 4, 2018.

Nonattainment plans for SO_2 must meet sections 110, 172, 191 and 192 of the CAA. 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" ("General Preamble").[3] Among other things, the General Preamble addressed SO_2 SIP submissions and fundamental principles for SIP control strategies.[4] On April 23, 2014, the EPA issued guidance for meeting the statutory requirements in SO_2 SIP submissions in a document entitled, "Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions" ("2014 SO_2 Guidance").[5] 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 reasonable further progress (RFP); implementation of reasonably available control measures (RACM) (including reasonably available control

[2] 78 FR 47191, codified at 40 CFR part 81, subpart C.
[3] 57 FR 13498 (April 16, 1992).
[4] Id. at 13545-49, 13567-68.
[5] Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions, April 23, 2014.

technology (RACT)); new source review; enforceable emissions limitations and control measures; conformity; 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 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 ensures equivalent or greater emission reductions of such air pollutant.

The EPA published a notice on March 18, 2016, finding that Arizona and other states had failed to submit the required SO_2 nonattainment plans for the Miami SO_2 NAA and several other areas by the submittal deadline.[6] 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 the State has submitted, and the EPA has approved, the nonattainment plan as meeting applicable requirements.

In response to the EPA's finding, the Arizona Department of Environmental Quality (ADEQ) submitted the Miami SO_2 Plan on March 9, 2017, and submitted associated final rules

[6] 81 FR 14736.

on April 6, 2017.[7] 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).[8] Today's final SIP approval terminates the EPA's duty to promulgate a FIP for the area.

II. Public Comments and Response to Comments

The EPA proposed to approve the Miami SO_2 Plan on June 15, 2018.[9] As part of this action, we also proposed to approve the use of AERMOD v14134 and BLP ("BLP/AERMOD Hybrid Approach") as an alternative model to represent emissions from the roofline of the Miami Smelter ("smelter").[10] The EPA's proposed action provided a 30-day public comment period. During this period, we received eight comment letters. Six of these comment letters raised issues that are outside of the scope of this rulemaking, including air quality in China, India, and other areas of the United States, wind power, and relations between the United States and Russia. We are not required to respond to these comments and are not doing so here. Two comment letters, one from the Arizona Mining Association (AMA) and one from the National Parks Conservation Association (NPCA), the Sierra Club (SC), and Arizona Mining Reform Coalition (AMRC) (collectively, "the Non-Governmental Organizations" or "NGOs") raised issues germane to this action.[11, 12] The EPA's summary of germane comments and responses are provided below. All comments received on the proposal are included in the docket for this action.

[7] Letters dated March 8, 2017, and April 6, 2017, from Tim Franquist, Director, Air Quality Division, ADEQ, to Alexis Strauss, Acting Regional Administrator, EPA Region IX. 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.
[8] Letters dated July 17, 2017, and September 26, 2017, from Elizabeth Adams, Acting Air Division Director, EPA Region IX, to Tim Franquist, Director, Air Quality Division, ADEQ.
[9] 83 FR 27938, June 15, 2018.
[10] Id. at 27942.
[11] Letter dated July 16, 2018, from Steve Trussell, Executive Director, Arizona Mining Association, to Michael Stoker, Regional Administrator, EPA Region IX.
[12] Letter dated July 16, 2018, from Kevin Dahl, NPCA, Sandy Bahr, SC, and Roger Featherstone, AMRC, to Krishna Viswanathan, Air Division, EPA Region IX.

A. Comments from the AMA

Comment: The AMA expressed support for our proposed approval of the Miami SO_2 SIP. In addition, the commenter specifically requested clarification of the following statement from our proposal:

> 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 critical emission value.

The AMA requested that the EPA "revise this discussion to make it clear that the evaluation of the longer-term limit is looking at whether additional *hourly* exceedances of the numeric portion of the NAAQS will occur rather than NAAQS exceedances."

Response: We note AMA's support for our proposed approval. With respect to the commenter's request for clarification, the commenter appears to be confusing the term "NAAQS exceedance" with "NAAQS violation." The *hourly* exceedance of the level of a NAAQS is the same as a NAAQS exceedance as used in our proposal but is different from a NAAQS violation. As explained in our proposal:

> 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. . . *Because the standard has this form, a single hourly exceedance does not create a violation of the standard*.[13]

To restate, when we use the term "NAAQS *exceedance*" (both in our proposal and in this document), we refer to an hourly exceedance of the 75 ppb level, rather than to a NAAQS

[13] 83 FR 27940, June 15, 2018 (emphasis added).

violation, which would occur only when the 3-year average of the annual 99th percentile of daily maximum 1-hour average concentrations is greater than 75 ppb.

B. Comments from the NGOs

Comment: The NGOs noted that Arizona was subject to a March 18, 2016 "Finding of Failure to Submit," and the EPA was therefore obligated to approve the SIP or promulgate a FIP if the SIP was not approved by April 18, 2018. They asserted that the SIP was not approved nor was a FIP in place by the deadline.

Response: We acknowledge that the EPA did not approve a SIP revision or promulgate a FIP for the Miami SO_2 NAA by April 18, 2018, as required under CAA 110(c)(1)(A). However, with this final action to approve the Miami SO_2 Plan, we are discharging our statutory obligation under CAA section 110(k)(2) to act on the SIP, and such approval terminates our FIP obligation under section 110(c)(1)(A) for the Miami SO_2 NAA.

Comment: The NGOs stated that the Miami, Arizona area had a design value of 105 ppb when designated nonattainment; whereas the 2014-2016 design value was 200 ppb, and the 2015-2017 preliminary design value was 221 ppb. The commenters asserted that, because attainment is determined by averaging over three years, the area will remain in nonattainment on the October 4, 2018 attainment deadline even if readings were 0.0 ppb from this point forward. On this basis they concluded that, even though the control measures may be operational by October 4, 2018, the State has already failed to demonstrate attainment by the statutory deadline.

Response: We disagree with this comment. We note that, contrary to the commenters' suggestion, the CAA does not require states with SO_2 nonattainment areas to factually "demonstrate attainment by the statutory deadline" in the SIPs they submit containing the control measures that will achieve attainment. Rather, sections 172 and 192 of the CAA require states to

submit SIP revisions that "provide for attainment" of the SO_2 NAAQS by the attainment date. In our proposal, we described our interpretation of "provide for attainment" and the rationale for finding that the Miami SO_2 plan submitted by the State of Arizona does provide for attainment.[14] In particular, Arizona's submittal provides modeling-based evidence that establishes that the control measures required on the single source of emissions in the area are sufficient to yield air quality that attains the NAAQS by the attainment deadline.

The available monitoring data should not be interpreted as indicating that Arizona's SIP has failed to provide for timely attainment. The monitoring data cited by the commenter were collected before the full implementation of the measures in the Miami SO_2 plan, which occurred in 2018.[15] Therefore, these data are indicative of whether air quality met the standard prior to full implementation of the measures reflected in the modeling demonstration, but these data are not a reliable indicator of whether air quality, after implementation of all modeled relevant control measures, would be expected to meet the standard at the attainment deadline. In other words, these data are not indicative of the adequacy of the plan and its modeling demonstration to provide for NAAQS attainment. Instead, as the EPA explained in our 2014 SO_2 Guidance and in numerous proposed and final SIP notices implementing the SO_2 NAAQS, a key element of an approvable SIP is the required modeling demonstration showing that the remedial control measures and strategy are adequate to bring a previously or currently violating area into attainment. Given the form of the 2010 NAAQS as the 3-year average of the 99th percentile of the yearly distribution of 1-hour daily maximum SO_2 concentrations, it is often possible that the three-year period of monitored data will not reflect the actual air quality levels resulting from

[14] 83 FR 27947, June 15, 2018.

[15] 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. Letter from Byron Belew, FMMI, to Alexis Strauss, EPA, and Timothy Franquist, ADEQ (December 19, 2017).

implementation of the newer remedial control measures implemented within that period. In such cases, as it is here, the more complete and representative analysis for informing action on a submitted SIP should focus on the results of newly implemented control measures required under the plan, rather than historical concentrations that do not reflect the results of the plan's required control measures. The former analysis explicitly addresses whether air quality will be attaining (as required) under the state's submitted plan, whereas the latter analysis may have little to no bearing on what will happen as a result of the plan. Therefore, in the context of reviewing the adequacy of those newer control measures to provide for newly attaining air quality under sections 172 and 192, we conclude that it is reasonable to focus on the modeling results that specifically account for those control measures and the resulting reductions in SO_2 emissions, rather than on monitored data that, in this case, do not represent air quality levels resulting from full implementation of the control measures in the Plan. In the Miami SO_2 Plan, Arizona's modeling shows that implementation of the measures included in the Plan result in air quality that attains the NAAQS.

Under the CAA, a determination of whether an area has failed to attain is a separate action from the review of an attainment demonstration SIP. The EPA's SIP review occurs under CAA sections 110(k), 172(c) and 192(a), while a determination of whether an SO_2 NAA has failed to attain is governed by CAA section 179(c)(1). Under section 110(k)(3), the EPA is required to approve a SIP submission that meets all applicable requirements of the CAA. For the reasons described in our proposal and elsewhere in this notice, we have concluded that the Miami SO_2 Plan meets all such requirements, including the requirement in 172(c) and 192(a) to provide for attainment by the attainment date. This is the determination that is the subject of today's final SIP approval action.

Separately, in a different action under section 179(c)(1) that is beyond the scope of today's final SIP approval action, the EPA must determine within six months of the attainment date whether an area has attained the NAAQS based on the area's air quality as of the attainment date. Accordingly, the EPA will in a separate action, analyze the pertinent information and determine whether the Miami SO_2 NAA attained the NAAQS by the attainment date in accordance with section 179(c)(1).

In response to the part of the comment related to change in ambient values, we note that the 2009-2011 design value used to designate the NAA was based on SO_2 data from the Miami Ridgeline monitor, which was the only SO_2 monitor in the NAA at that time. The 2015-2017 design value cited by the commenter was based on data from the Miami Jones Ranch Monitor, which was installed in 2013. Because of safety and infrastructure concerns, the Ridgeline monitor ceased operation on September 26, 2017, following EPA approval of the site's closure.[16] As shown in Table 1, during the years that both the Ridgeline and Jones Ranch monitors had valid design values (2015 and 2016), the design values for the Jones Ranch monitor were more than 50 ppb higher than the design values for the Miami Ridgeline monitor. The change in design value noted by the commenters reflects the more recent design value information provided by the Miami Jones Ranch monitor and appears to be more the result of monitoring at a different location rather than a significant worsening of air quality as implied by the commenter. Again, however, the EPA is not taking any final action today under CAA section 179(c) to determine whether the Miami area factually attained the NAAQS by the attainment date, and our discussion of the monitoring data from the Ridgeline and the Jones ranch monitors presented here is for informational purposes only.

[16] Letter dated September 19, 2017, from Elizabeth Adams, Acting Director, Air Division EPA Region IX, to Timothy Franquist, Director, Air Quality, ADEQ.

Table 1. 2010 1-hr SO_2 NAAQS Design Values for monitors in the Miami SO_2 NAA (ppb)

Site Name	AQS ID	2011	2012	2013	2014	2015	2016	2017
Ridgeline[1]	04-007-0009	111	107	105	122	145	146	N/A
Jones Ranch[2]	04-007-0011	N/A	N/A	N/A	N/A	199	200	221
Townsite[3]	04-007-0012	N/A	N/A	N/A	N/A	196	194	159

N/A = not available
[1] The Ridgeline monitor ceased operation on September 26, 2017, due to safety and infrastructure concerns.
[2] The Jones Ranch monitor became operational on February 1, 2013.
[3] The Townsite monitor site became operational on February 1, 2013.

Comment: The commenters noted that the EPA stated that it agreed with the State's placement of modeling receptors, which relied on an ambient air boundary consisting of the facility's physical fence line as well as several boundary segments with no fence that the State inspected and concluded steep topography precludes public access. However, the commenters asserted that "there is no EPA regulation or written policy stating that steep topography is not ambient air. Impacts in these areas should not be ignored in the modeling simulations, and thus, the State has not demonstrated that the proposed emission limit of 142.45 lb/hr provides for attainment of the SO_2 NAAQS."

Response: Ambient air is defined as "that portion of the atmosphere, external to buildings, to which the general public has access."[17] The 2014 SO_2 Guidance, Appendix A, Section 5.2 states "[t]he model receptor grid is unique to the particular situation and depends on the size of the modeling domain, the number of modeled sources, and complexity of the terrain. Receptors should be placed in areas that are considered ambient air (i.e., where the public generally has access) relative to a particular facility. . . ." The EPA policy on excluding areas from ambient air has been stated in a series of letters and memoranda. In a 1980 letter from

[17] 40 CFR 50.1(e).

Administrator Douglas Costle to Senator Jennings Randolph,[18] the EPA stated its policy that the exclusion from ambient air is available only for the atmosphere over land owned or controlled by the source and to which public access is precluded by a fence or other physical barriers, based on a case-by-case review of individual situations to ensure that the public is adequately protected. This represents the EPA's current policy with regard to ambient air. As part of a demonstration that an exclusion is appropriate, a source should take steps to preclude the general public from accessing the property by relying on some type of physical barrier, such as a fence, wall, or a natural obstruction.[19] As a result, we disagree with the commenter's assertion that the EPA lacks a written policy that allows for steep topography to preclude public access to facility property. As described above, a natural obstruction, such as steep topography, may be considered to be part of an ambient air boundary, consistent with the regulatory definition of ambient air, if it is effective in precluding the general public from accessing the property and can be a basis for excluding such area for receptor placement in the modeling.

We note that the EPA is currently evaluating this ambient air policy to consider whether access to property by the general public may be effectively precluded or deterred, consistent with the existing regulatory definition of ambient air, by means other than a fence or other physical barriers.[20] Such a revision to our policy would not alter our finding that Arizona properly excluded receptors in areas owned or controlled by the source where steep topography precludes public access.

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[18] Letter dated December 19, 1980, from Douglas M. Costle, Administrator, EPA to Senator Jennings Randolph, Chairman, Environment and Public Works Committee.

[19] Memorandum dated June 22, 2007, from Stephen D. Page, Director, Office of Air Quality Planning & Standards, EPA to Regional Air Division Directors, "Interpretation of 'Ambient Air' In Situations Involving Leased Land Under the Regulations for Prevention of Significant Deterioration." As indicated in the attachment to this EPA memo at footnote 1, "preclude" does not necessarily imply that public access is absolutely impossible, but rather that the likelihood of such access is small.

[20] EPA Draft Guidance dated November 2018, "Revised Policy on Exclusions from 'Ambient Air.'" https://www.epa.gov/nsr/forms/draft-guidance-revised-policy-exclusions-ambient-air.

Comment: The NGOs commented that according to the spreadsheet from the docket[21] Freeport-McMoRan Miami Incorporated's (FMMI's) existing permit requires individual limits, on a pound per hour (lb/hr) basis, on the various SO_2 emitting processes. They asserted that our proposed action does not include a discussion as to why it is appropriate to now switch to a single facility-wide limit with a longer term (i.e., 30-day averaging basis).

Response: First, we disagree with the commenter's characterization of "switching" from individual limits to a facility-wide limit, as it implies that these existing limits will either be replaced or cease to be applicable following the approval of the Miami SO_2 Plan. The permit limits listed in the spreadsheet cited by the commenter are found in Attachment C of FMMI's title V permit.[22] The limits are 820.00 lb/hr for the Acid Plant Tail Gas Stack, 312.00 lb/hr for the Vent Fume Stack, and 1288 lb/hr for all fugitives.[23] These existing limits were established under separate legal authority to meet separate regulatory requirements and will not be altered by the addition of the 142.45 lb/hr limit (30-day rolling average) that applies to the entire facility under Arizona Administrative Code, Title 18, Chapter 2, Article 13, Section R18-2-C1302 ("Rule C1302").[24]

Second, we note that these existing individual limits were not in the SIP and were not intended to provide for attainment of the NAAQS. The appropriateness of the facility-wide, 30-day rolling emission limit for attainment of the NAAQS must be evaluated based upon the legal requirements and guidance associated with implementation of the 1-hr SO_2 NAAQS. Contrary to the commenter's assertion, our proposal did explain why it is appropriate to use both a facility-

[21] See C.4 2015-07-13 FMMI Emissions Inventory – 2015-07-13 – Past Actuals Using Sulfur Balance.
[22] The spreadsheet cited by the commenter (i.e., "C.4 2015-07-13 FMMI - Emissions Inventory - 2015-07-13 - Past Actuals Using Sulfur Balance") refers to Title V Permit 53592, which was issued on November 26, 2012, and expired on November 25, 2017. FMMI's current Title V Permit 66039, which was issued on December 20, 2019, includes the same emissions limits in Attachment C as Title V Permit 53592.
[23] Title Permit 66039, Attachment C.
[24] The EPA approved Rule C1302 into the Arizona SIP at 83 FR 56736 (November 14, 2018).

wide limit and a longer-term limit in this case.[25] As explained in the proposal, the State provided an analysis to show that due to the batch nature of the smelting process at the Miami Smelter, the emissions from the various units ("sources") at the facility are independent of one another and therefore do not peak at the same time. The collection of future maximum potential SO_2 emission rates for each source represents a conservative estimate of the worst-case emission distribution at the smelter. Additionally, ADEQ submitted an analysis that demonstrates that variations in the location of peak emissions among sources will not affect attainment, and a facility-wide emissions limit is sufficiently protective.

Comment: The commenters asserted that the adjustment factor used to develop the emission limit for the Miami Smelter (0.37) indicates that its operation is much more variable than are emissions at electric generating units (EGUs) and that the EPA's 2014 SO_2 Guidance was developed based on empirical evidence to assess the variability of the operation of EGUs, not sulfuric acid plants. They argued that this greater variability means that there is much higher probability that any given hour is above the critical emission value (CEV) for this sulfuric acid plant relative to the EGUs cited in the 2014 SO_2 Guidance. They asserted that there was no discussion of the estimated percentage of time that the hourly emissions are expected to be above the CEV and that the EPA or the State, at a minimum, should provide some discussion on expected emissions and assess the variability in terms of sulfuric acid plants rather than EGUs.

Response: We agree that emissions at the Miami Smelter are more variable than for EGUs. The adjustment factor for the Miami Smelter was 0.37 compared to the national average adjustment factors (i.e., 0.63–0.79) estimated for EGUs and listed in Table 1 of Appendix D of the 2014 SO_2 Guidance. The approach outlined in the 2014 SO_2 Guidance accounts for whatever

[25] 83 FR 27938, June 15, 2018.

degree of variability a source has, because the adjustment factor is designed to reflect the source's own emission distribution and variability. The higher degree of adjustment for the Miami Smelter compared to the EGUs means that the longer-term emission limit for the smelter is lowered further to ensure that hourly emissions exceeding the CEV are a rare occurrence. Indeed, the protocol given in the 2014 SO_2 Guidance is designed to provide for long-term average emission levels above the long-term average limit to be as rare as 1-hour emission levels above the CEV, which for the Miami Smelter necessitates more adjustment than is necessary for most EGUs. Therefore, we disagree with the commenters that this increased variability means there is a higher probability that any given hour is above the CEV compared to the sources envisioned by the 2014 SO_2 Guidance. As described in our proposal, the State used hourly SO_2 data collected using continuous emission monitors from May 2013 to October 2014, adjusted to account for Miami Smelter's upgrades and increased production capacity, as a representative emission distribution for the smelter's future configuration.[26] Appendix C to the Miami SO_2 Plan, "Modeling Technical Support Document for the Miami Sulfur Dioxide (SO_2) Nonattainment Area" ("Modeling TSD"), Table 8-7 specifies this representative emission distribution includes 60 hours above the CEV, which amounts to 0.5 percent of operating hours. The EPA's 2014 SO_2 Guidance states that "if above the critical emission value are a rare occurrence at a source, these periods would be unlikely to have a significant impact on air quality, insofar as they would be very unlikely to occur repeatedly at the times when the meteorology is conducive for high ambient concentrations of SO_2."[27] We conclude that the limit for the Miami Smelter, which we expect to result in no more than 0.5 percent of hours exceeding

[26] 83 FR 27944, June 15, 2018.
[27] 2014 SO_2 Guidance, 24.

the CEV, qualifies as assuring that such occasions of elevated emissions will be sufficiently rare to provide for attainment, consistent with EPA guidance.

Comment: The NGOs argued that there should be a clear indication of whether or not there were hours of non-operation (i.e., zero emissions) for each of the emission units factored into the adjustment factor calculation and whether non-operation will be counted towards compliance. They noted that the 2014 SO_2 Guidance calls for the calculations to be made only during hours of operation and asserted that it was not clear how the State determined the 0.37 adjustment factor and how compliance will be ensured with respect to non-operation.

Response: We agree with the commenter that it should be clear how hours of non-operation were accounted for in developing the adjustment factor and how they will be used in determining compliance. Regarding the development of the adjustment factor, we have included information in the docket that displays the facility emission data used by the State in determining the 0.37 adjustment factor.[28] This adjustment factor represents a ratio of the 99th percentile of 30-day average emissions relative to the 99th percentile of 1-hour average emissions. To determine the 99th percentile of the 1-hour average emissions, the State only considered hours corresponding to periods of operation. To determine the 99th percentile of the 30-day average emission values the State used a running hourly mean of the most recent 720 hours that corresponded to periods of operation. As seen in this spreadsheet, periods of zero emissions that correspond to nonoperation were removed from consideration in developing the adjustment factor.

We note that there was a period during June 16-17, 2015, in which 39 hours of zero emissions were included in the set of emission data used in developing the adjustment factor.

[28] Spreadsheet "FMMI_EMISSION_LIMIT_TSD_20151223.xls" and Memorandum dated February 6, 2019, from Rynda Kay, EPA Region IX, Air Quality Analysis Office, to Rulemaking Docket EPA-R09-OAR-2017-0621.

Additional correspondence between the EPA, ADEQ and FMMI provided further details indicating that while no emissions occurred, this period of time corresponds to a period of operation as defined in Rule C1302 subsection (B)(6).[29] Specifically, FMMI indicated the electric furnace was receiving power during this period, and that electric furnace temperature was steadily increasing. In addition, the vent fume stack fan was also operating and ventilating during this period. FMMI asserts that during this 39-hour period, the electric furnace was operating and smelting, but that crust formation prevented SO_2 emissions from the electric furnace until temperature was sufficient to melt the crust. Operating records provided by FMMI support these details and indicate that this 39-hour period represents initial startup after a period of nonoperation.[30] Based on this information, we consider the inclusion of this 39-hour period appropriate because conditions at the facility were consistent with periods of operation that generated no emissions.

With respect to the compliance determination, we note that Rule C1302 subsection (F)(1) requires a compliance demonstration for each "operating day." Subsection (B)(6) of Rule C1302 defines "operating day" as any calendar day in which any of the following occurs:

> a. Concentrate is smelted in the Electric furnace or IsaSmelt furnace;
> b. Copper or sulfur bearing materials are processed in the converters;
> c. Blister or scrap copper is processed in the anode furnaces or mold vessel;
> d. Molten metal, including slag, matte or blister copper, is transferred between vessels;
> e. Molten metal is cast into molds, anodes, or other intermediate or final products;
> f. Power is provided to the electric furnace to make or maintain a molten bath; or
> g. The anode furnace is heated to make or maintain a molten bath.

In this rule, compliance with the rolling 30-day emission limit is calculated by identifying the days during which one or more of the relevant units was actually operating, and at the end of

[29] Email dated September 19, 2018, from Farah Mohammadesmaeili (ADEQ) to Rynda Kay (EPA), Subject: "FW: SO2 SIP Data Inquiry."
[30] Spreadsheet "2013 shutdown data 20181017.xlsx."

each operating day computing average emissions over the most recent 30 operating days. The emissions from those 30 days are totaled and then divided by 720 (30 days x 24 hours). The approach of determining compliance on the basis of emissions only during operating days and defining "operating day" as a day with any operation is consistent with the recommendation in the 2014 SO_2 Guidance.[31] On the other hand, the determination of compliance on a 720-hour basis, inherently averaging in the zero emission values of non-operating hours during an operating day, is not consistent with the recommendation in the 2014 SO_2 Guidance that hours without operation be excluded from the compliance determination.[32]

The EPA has evaluated the significance of using this compliance determination approach for this facility as compared to a method that excludes all non-operating hours.[33] In the case of the Miami Smelter, the use of data only from operating days, as opposed to using data from all calendar days, substantially limits the inclusion of non-operating hours. The nature of the process at the Miami Smelter involves relatively continuous operation, so that the number of non-operating hours within operating days is minimal. For example, the emission data used to derive the adjustment factor, representing 12,264 hours, include only 224 non-operating hours, less than 2 percent of the hours. The inclusion of these non-operating hours has a negligible impact on the rolling average, especially at peak values for this facility. For example, the highest 30-operating day average calculated from the dataset is 105.9 lb/hr when non-operating hours are excluded compared to 105.2 lb/hr when non-operating hours are included. Both are well below the facility-wide 30-day emission limit of 142.45 lb/hr. Also, among the days represented in the top 10

[31] 2014 SO_2 Guidance, 32.
[32] Id. ("The MATS procedure also effectively provides that hours with no operation have no effect on the calculated average emission rate, which is a desirable feature in order to focus on how well controls are operating during operating hours.")
[33] See "Evaluation-FMMIComplianceMethodology.xls" for the EPA's evaluation of the Miami Smelter's compliance methodology.

percent of 30-day averages, only 0.5 percent of the hours are non-operating hours. As the compliance methodology for the Miami Smelter is based on an operating day, consistent with the 2014 SO_2 Guidance, and the smelter operates continuously year-round, these non-operating hours remain inconsequential in determining compliance with the 30-day limit. Therefore, we conclude that this deviation from guidance will have minimal impact and does not prevent this Miami SO_2 Plan from providing for attainment.

The 2014 SO_2 Guidance also recommends that the approach used to calculate the adjustment factor should be consistent with the approach used to determine compliance with the longer-term limit.[34] As described above, ADEQ computed the 99th percentile of the 30-day average emission values used in the development of the longer-term limit as a 720-rolling hourly average, whereas compliance is determined using a 30-operating day average. We recalculated the adjustment factor and resulting emission limit using the compliance methodology outlined in Rule C1302 and found the difference was small: the adjustment factor and 30-day limit are 0.368 and 141.80 lb/hr when calculated using a 30-operating day average compared to 0.370 and 142.45 lb/hr when calculated as a 720-hour running mean, a 0.4 percent difference. We believe this difference is negligible and the conservatism built into the State's modeling adequately demonstrates that the longer-term emission limit in Rule C1302 provides for attainment. The State's modeling predicts a design value of 194.1 micrograms per cubic meter ($\mu g/m^3$), whereas the standard is 196.4 $\mu g/m^3$ (75 ppb), providing room for this slightly higher limit in Rule C1302.

Comment: The NGOs requested that the EPA take a fresh look at this rulemaking and issue a revised proposal for public notice and comment.

[34] 2014 SO_2 Guidance, Appendix C, C-3.

Response: We have reexamined our proposed rulemaking and have concluded that no revised notice of proposed rulemaking is warranted. For the reasons described in our proposal and in the preceding responses to comments, we find that the Miami SO_2 Plan meets all applicable requirements under the CAA and the EPA's implementing regulations. Accordingly, we are finalizing our approval of the Miami SO_2 Plan.

III. The EPA's Final Action

The EPA is approving 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, new source review, enforceable emissions limits and control measures, and contingency measures. For the reasons described in our proposal and the related concurrence documents,[35] the EPA is also approving the BLP/AERMOD Hybrid Approach as an alternative model to represent emissions from Miami Smelter roofline in the Miami SO_2 Plan under 40 CFR 51.112(a)(2). The EPA determines 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.

IV. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 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 action merely approves state

[35] "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) and "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).

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);
- 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).

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[insert date 60 days after date of publication in the Federal Register]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be

filed and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2)).

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: February 21, 2019.

Deborah Jordan,
Acting Regional Administrator,
EPA Region IX.

40 CFR part 52 is amended as follows:

PART 52–APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

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

Subpart D–Arizona

2. In §52.120, table 1 in paragraph (e) is amended by adding the entry "Arizona State Implementation Plan Revision: Miami Sulfur Dioxide Nonattainment Area for the 2010 SO_2 NAAQS, excluding Appendix D" after the entry "SIP Revision: Hayden Lead Nonattainment Area, excluding Appendix C" to read as follows:

§52.120 Identification of plan.

* * * * *

(e) * * *

Table 1—EPA-Approved Non-Regulatory and Quasi-Regulatory Measures

[Excluding certain resolutions and statutes, which are listed in tables 2 and 3, respectively][1]

Name of SIP provision	Applicable geographic or nonattainment area or title/subject	State submittal date	EPA approval date	Explanation
* *	*	*	* *	*
Part D Elements and Plans (Other than for the Metropolitan Phoenix or Tucson Areas)				
* *	*	*	* *	*
Arizona State Implementation Plan Revision: Miami Sulfur Dioxide Nonattainment Area for the	Miami, AZ Sulfur Dioxide Nonattainment Area	March 9, 2017	**[insert Federal Register citation], [insert date of publication in the Federal**	Adopted by the Arizona Department of Environmental Quality on March 8, 2017.

2010 SO_2 NAAQS, excluding Appendix D.			**Register]**	
* * * * * * *				

[1] Table 1 is divided into three parts: Clean Air Act Section 110(a)(2) State Implementation Plan Elements (excluding Part D Elements and Plans), Part D Elements and Plans (other than for the Metropolitan Phoenix or Tucson Areas), and Part D Elements and Plans for the Metropolitan Phoenix and Tucson Areas.

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[FR Doc. 2019-04389 Filed: 3/11/2019 8:45 am; Publication Date: 3/12/2019]