6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R07-OAR-2026-2938; FRL-13334-01-R7]

Air Plan Approval; Missouri; Attainment Plan for the New Madrid Nonattainment Area for the 2010 1-hour Sulfur Dioxide National Ambient Air Quality Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the State Implementation Plan (SIP) revision, submitted by the State of Missouri, on May 3, 2023. This revision pertains to the attainment plan for the New Madrid nonattainment area for the 2010 1-hour sulfur dioxide (SO_2) primary National Ambient Air Quality Standard (NAAQS). This plan (herein called an "attainment plan") includes the State's attainment demonstration and other elements required under Clean Air Act (CAA). In addition to an attainment demonstration, the plan addresses emission limitations necessary to provide for attainment, base-year and projection-year emission inventories, reasonably available control measures and reasonably available control technology (RACM/RACT), nonattainment new source review (NNSR), the requirements for meeting reasonable further progress (RFP) toward attainment of the NAAQS, and contingency measures. The EPA is proposing to approve Missouri's submission as meeting these relevant CAA requirements. This action is being taken pursuant to 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-R07-OAR-2026-2938 to https://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 https://www.epa.gov/dockets/commenting-epa-dockets.

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

Organization of this document. The following outline is provided to aid in locating information in this preamble.

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I. Background

Under section 109 of the CAA, the EPA has established primary and secondary NAAQS for certain pervasive air pollutants (referred to as "criteria pollutants") and conducts periodic reviews of the NAAQS to determine whether they should be revised or whether new NAAQS should be established. The primary NAAQS represent ambient air quality standards, the attainment and maintenance of which the EPA has determined, including an adequate margin of safety, are requisite to protect the public health. The secondary NAAQS represent ambient air quality standards, the attainment and maintenance of which the EPA has determined are requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air.

Under the CAA, the EPA must establish NAAQS for criteria pollutants, including SO_2. SO_2 is primarily released to the atmosphere through the burning of fossil fuels by power plants and other industrial facilities. Short-term exposure to SO_2 can damage the human respiratory system and increase breathing difficulties. Small children and people with respiratory conditions, such as asthma, are more sensitive to the effects of SO_2. Sulfur oxides at high concentrations in ambient air can also react with other compounds to form small particulates that can penetrate deeply into the lungs and cause health problems.

On June 22, 2010, the EPA published a new 1-hour primary SO_2 NAAQS of 75 parts per billion (ppb) at 40 CFR 50.17(a), which 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 parts per billion (ppb), as determined in accordance with appendix T of 40 CFR part 50 (75 FR 35520). Under CAA section 107(d)(1), the EPA is required to designate areas as "nonattainment," "attainment," or "unclassifiable" within two years of establishing a new or revising an existing standard. As part of this process, states must submit

recommendations for initial area designations and boundaries to the EPA within one year of the effective date of the standard. The EPA evaluates the state recommendations and promulgates the area designations based on the relevant information. On March 26, 2021, the EPA published a document in the *Federal Register* designating 9 areas in 7 states as nonattainment for the 2010 1-hour SO_2 NAAQS, including a portion of New Madrid County in the State of Missouri. This set of designations is known as Round 4. See 86 FR 16055, codified at 40 CFR part 81, subpart C. These area designations were effective April 30, 2021. This Round 4 of designations was based on data from newly installed monitoring sites placed in the area of maximum concentration in the respective source areas. As noted later in this document, there were three new monitoring sites installed in the New Madrid area designed to capture the maximum impact from the relevant sources in the area. Based in part on monitoring data from these monitors, the EPA designated a portion of New Madrid County as nonattainment for the 2010 SO_2 NAAQS on April 30, 2021 (86 FR 16055). This designation triggered a requirement for Missouri to submit by October 30, 2022 (within 18 months per CAA section 191(a)), a SIP revision containing an attainment plan for how the New Madrid area would attain the 2010 SO_2 NAAQS as expeditiously as practicable, but no later than April 30, 2026, per CAA section 192(a) in accordance with CAA sections 110(a), 172(c) and 191-192.

In response to this requirement, Missouri submitted an attainment plan for the New Madrid nonattainment area on May 3, 2023. The remainder of this document describes the requirements that such attainment plans must meet in order for the EPA to approve the plan provisions into the federally enforceable SIP, provides a review of the state's plan with respect to these requirements, and describes the EPA's proposed action on Missouri's plan. For reasons described in the following sections, the EPA is proposing to approve Missouri's attainment plan for the New Madrid area.

II. Requirements for SO_2 Attainment Plans

SO_2 attainment plans must meet the applicable requirements of the CAA, including specifically CAA sections 110, 172, 191 and 192. The EPA's regulations governing attainment plans 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 requirements, in a document entitled the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990," published at 57 FR 13498 (April 16, 1992) (General Preamble). Among other things, the General Preamble addressed SO_2 attainment plan requirements and fundamental principles for SIP emission control strategies. *Id*., at 13545-49, 13567-68. On April 23, 2014, the EPA issued guidance and recommendations for meeting the statutory requirements for SO_2 attainment plans addressing the 2010 primary SO_2 NAAQS, in a document entitled, "Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions" (hereafter referred to as "2014 SO_2 Nonattainment Guidance").[1] In this guidance, the EPA described the statutory requirements for the elements of an attainment plan as provided in CAA section 172(c), which include: an accurate emissions inventory of current emissions for all sources of SO_2 within the nonattainment area; an attainment demonstration; demonstration of Reasonable Further Progress (RFP); implementation of Reasonably Available Control Measures (RACM) (including Reasonably Available Control Technology (RACT)); emission limitations and control measures necessary to provide for attainment; nonattainment new source review (NNSR); and adequate contingency measures.

In general, the EPA's duties in reviewing state attainment plans are described in CAA sections 110(k) and 110(l). The EPA is required to determine whether a SIP submission meets certain minimum criteria for completeness, or it is deemed complete by operation of law six months after the state submits it. Once a SIP submission is complete, the EPA is required to approve or disapprove the submission, in whole or in part, depending upon whether it meets all

[1] Available at https://www.epa.gov/sites/default/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf.

applicable requirements of the CAA. The EPA may also conditionally approve a state's attainment plan submission, in whole or in part, under certain circumstances. State attainment plans are approved by the EPA as meeting the requirements of the CAA if they fully address the requirements of CAA sections 110, 172, 191 and 192, and the EPA's regulations at 40 CFR part 51.

Also, under CAA section 110(l), the EPA may not approve a SIP revision that would interfere with any applicable requirement concerning NAAQS attainment and RFP, or any other applicable requirement of the CAA. Further, under CAA section 193, no control requirement in effect before November 15, 1990 (or required to be adopted by an order, settlement, agreement, or plan in effect before November 15, 1990), in any area which is a nonattainment area for any air pollutant, may be modified in any manner unless the modification ensures equivalent or greater emission reductions of such air pollutant.

CAA sections 172(c)(1) and 172(c)(6) direct states with areas designated as nonattainment to demonstrate that the submitted plan and its emission limitations and control measures provide for attainment of the NAAQS. The EPA's regulations at 40 CFR part 51, subpart G further delineates the control strategy requirements that attainment plans must meet, and provide that all attainment plan control strategies reflect the four fundamental principles of quantification, enforceability, replicability, and accountability. See General Preamble, at 13567-13568. In addition to the attainment plan elements discussed above, attainment plans for the SO_2 NAAQS must include : (1) enforceable emission limitations and other control measures that assure implementation of permanent, enforceable and necessary emission controls, and (2) a modeling analysis which meets the requirements of 40 CFR part 51, appendix W and demonstrates that necessary emission limitations and control measures provide for timely attainment of the primary SO_2 NAAQS as expeditiously as practicable, but by no later than the applicable attainment date for the affected area. In all cases, these emission limitations and control measures must be accompanied by appropriate methods and conditions to determine

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

The EPA's 2014 SO_2 Nonattainment Guidance recommends that the emission limitations established for the attainment demonstration be expressed as short-term average limits (e.g., addressing emissions averaged over one hour consistent with the averaging time of the 2010 1-hour SO_2 NAAQS), but also describes the option to utilize emission limitations with longer averaging times of up to 30 days so long as the limit is demonstrated by the state to assure comparable stringency to a 1-hour average limit that demonstrates attainment of the 1-hour SO_2 NAAQS. The EPA's guidance provides suggested criteria and procedures for making this demonstration. See 2014 SO_2 Nonattainment Guidance, pp. 22-39. The guidance recommends that—should states and sources seek to utilize longer averaging times—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 (CEV) shown to provide for attainment that the plan otherwise would have set.

The 2014 SO_2 Nonattainment 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 30-day average limits on the prospects for attaining the standard, and carefully reviewed how best to achieve an appropriate balance among the various

factors that warrant consideration in judging whether a state's plan provides for attainment. *Id.* at pp. 22 -39, and appendices B, C, and D.

As specified in 40 CFR 50.17(b), the 2010 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 of the 75 ppb NAAQS level does not by itself result in a violation of the standard. Instead, at issue is whether a source operating in compliance with a properly set longer-term average could cause multiple hourly exceedances over multiple days in a year, and if so, the resulting frequency and magnitude of such exceedances, and in particular, whether the EPA can have reasonable confidence that a properly set longer-term average limit will provide that the 3-year average of annual fourth highest daily maximum hourly values will be at or below 75 ppb. A synopsis of how the EPA evaluates whether such plans "provide for attainment," based on modeling of projected allowable emissions and in light of the SO_2 NAAQS' form for determining attainment at monitoring sites, follows.

For SO_2 NAAQS attainment plans based on emission limitations that impose 1-hour emission limits, the standard approach is to conduct modeling using fixed 1-hour emission rates. The maximum modeled emission rate that results in attainment is labeled the "critical emissions value" (CEV). The modeling process for identifying this CEV 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 for each stationary SO_2 source at this CEV.

The EPA recognizes that some SO_2 sources have highly variable emissions, for example due to variations in fuel sulfur content and operating rate, which can make it extremely difficult,

even with a well-designed control strategy, to ensure in practice that emissions for any given hour do not exceed the CEV. The EPA also acknowledges the concern that longer-term emission limits can allow short periods with emissions above the CEV, which, if coincident with meteorological conditions conducive to high SO_2 concentrations, could in turn create the possibility of an hourly NAAQS exceedance occurring on a day when an exceedance would not have occurred if emissions were continuously controlled at the level corresponding to the CEV. However, for several reasons, the EPA believes that the approach recommended in its guidance document 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 CEV) and that takes the source's emissions profile (and inherent level of emissions variability) 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, to the likely air quality with the source having maximum allowable emissions under the comparable 1-hour limit. In this comparison, in the 1-hour average limit scenario, the source is presumed at all times to emit at the CEV, and in the longer-term average limit scenario, the source is presumed occasionally to emit more than the CEV, but on average, and presumably at most times, to emit well below the CEV. In an "average year,"[2] compliance with the 1-hour limit

[2] 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 annual 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.

is expected to result in three exceedance days (i.e., three days with maximum hourly values above 75 ppb) and a fourth day with a maximum hourly value at 75 ppb. By comparison, with the source complying with a longer-term limit, it is possible that additional hourly exceedances would occur that would not occur in the 1-hour limit scenario (if emissions exceed the CEV at times when meteorology is conducive to poor air quality). However, this comparison must also factor in the likelihood that 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 below the CEV), so a source complying with an appropriately set longer-term limit is likely to have lower emissions at critical times than would be the case if the source were emitting as allowed with a 1-hour limit.

To illustrate this point, the EPA conducted a statistical analysis using a range of scenarios using actual plant data. This analysis is described in appendix B of the EPA's 2014 SO_2 Nonattainment Guidance. Based on the analysis described in the 2014 SO_2 Nonattainment 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 hourly exceedances and better air quality than an emission profile with maximum allowable emissions under a 1-hour emission limit at the CEV. This result provides a compelling policy rationale for allowing the use of a longer averaging period, in appropriate circumstances where the facts indicate this result can be expected to occur.

The 2014 SO_2 Nonattainment Guidance offers specific recommendations for determining an appropriate longer-term average limit. The recommended method starts with determination of the 1-hour emission limit that would provide for attainment (i.e., the CEV), and applies an adjustment factor to determine the (lower) level of the longer-term average emission limit that would be estimated to have a stringency comparable to the otherwise necessary 1-hour emission limit. This method uses a database of continuous emission data reflecting the type of control that the source will be using to comply with the SIP emission limits, which (if compliance requires

new controls) may require use of an emission database from another source. The recommended method involves using these data to compute a complete set of emission averages, computed according to the averaging time and averaging procedures of the prospective emission limitation (i.e., using 1-hour historical emission values from the emissions database to calculate 30-day average emission values). In this recommended method, the ratio of the 99th percentile among these longer-term averages to the 99th percentile of the 1-hour values represents an adjustment factor that may be multiplied to the candidate 1-hour emission limit (CEV) to determine a longer-term average emission limit that may be considered comparably stringent.[3]

The 2014 SO_2 Nonattainment Guidance also addresses a variety of related topics, including the potential utility of setting supplemental emission limits, such as mass-based limits or work practice requirements for the operation of SO_2 control equipment, 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 Addendum A of the EPA's *Guideline on Air Quality Models (40 CFR part 51, appendix W)*. In 2005, the EPA promulgated AERMOD as the Agency's preferred near-field dispersion modeling for a wide range of regulatory applications addressing stationary sources (for example in estimating SO_2 concentrations) in all types of terrain based on extensive developmental and performance evaluations. Supplemental guidance on modeling for purposes of demonstrating attainment of the SO_2 standard is provided in appendix A to the 2014 SO_2 Nonattainment 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 this guidance would generally ensure that the attainment demonstration offers adequately reliable assurance that the plan provides for attainment.

[3] For example, if the CEV 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.

Attainment demonstrations for the 2010 1-hour primary SO_2 NAAQS must demonstrate future attainment 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 40 CFR part 51) to show that the mix of sources and enforceable control measures and emission rates in an identified area will not lead to a violation of the SO_2 NAAQS. For a short-term (*i.e.,* 1-hour) standard, the EPA finds that dispersion modeling, using allowable emissions and addressing stationary sources in the affected area (and in some cases those sources located outside the nonattainment area which may affect attainment in the area) is technically appropriate, efficient, and effective in demonstrating attainment in nonattainment areas because it takes into consideration combinations of meteorological and emission source operating conditions that may contribute to peak ground-level concentrations of SO_2.

The meteorological data used in the analysis should generally be processed with the most recent version of AERMET. AERMET is a meteorological data preprocessor that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts. Estimated concentrations should include ambient background concentrations, should follow the form of the standard, and should be calculated as described in section 2.6.1.2 of the August 23, 2010, clarification memo on "Applicability of Appendix W Modeling Guidance for the 1-hour SO_2 National Ambient Air Quality Standard" (U.S. EPA, 2010).

III. Review of Missouri's SIP Submission

The State of Missouri submitted an attainment plan for the New Madrid area to the EPA on May 3, 2023. Missouri established new consent agreements (APCP-2022-047A and APCP-2022-048A respectively) with the following two sources that account for the majority of SO_2 emissions in the nonattainment area: Magnitude 7 Metals (M7M) and Associated Electric Cooperative Incorporated (AECI) New Madrid Power Plant.[4] The State relies on these new

[4] The State submittal document in the docket for this action includes the full consent agreements as appendices. M7M's consent agreement is contained in appendix E, and AECI New Madrid's consent agreement is contained in appendix F to the state plan.

consent agreements as the enforceable mechanism for satisfying several requirements of the area's attainment plan, including the control strategy, attainment demonstration, RFP, RACM/RACT, and contingency measures. These consent agreements are available in appendices E and F of the State's submission included in the docket for this action.

M7M is a primary aluminum reduction plant with two principal operations that emit SO_2: on-site carbon bake furnaces which produce carbon block anodes and electrolysis potlines which consume the anodes to produce metallic aluminum. As the carbon block anodes are baked in the furnaces, some sulfur in the raw coke and pitch is also "baked out" of the carbon block and released as SO_2 through relatively low-level stacks. In the potline electrolytic process, sulfur still present in the carbon blocks oxidizes to form SO_2. SO_2 emissions from the potlines are routed under negative pressure through fluoride scrubbers and then to a common stack, with a portion of the SO_2 also released as fugitive emissions through roof vents spanning the potline buildings.

The AECI New Madrid Power Plant operates two coal-fired steam boilers to generate electric power. They are the main sources of SO_2 emissions for this facility. The emissions from these boilers are routed through a dual stack that uses continuous emissions monitoring systems (CEMS) to measure actual hourly SO_2 emissions from each of the two boilers.

Although the largest sources of SO_2 emissions in the nonattainment area are the M7M potlines and the New Madrid Power Plant coal-fired boilers, the State determined based on air dispersion modeling analyses that the most significant contributions to elevated ground-level SO_2 concentrations are from SO_2 emissions released from relatively low-level stacks of the M7M's carbon bake furnaces. For this reason, the State developed a control strategy focused on rerouting SO_2 emissions from the existing low-level carbon bake furnace stacks to a new yet-to-be-constructed taller stack to improve dispersion of these emissions. The control strategy also includes new emission limitations and monitoring requirements for AECI New Madrid that were applicable beginning on January 1, 2023, as required by the consent agreement.

The requirement for M7M to cease all SO_2 emissions from the low-level carbon bake stacks was made enforceable by the State through a consent agreement with M7M. The State also established new SO_2 emission limits for M7M's carbon bake and potline emission release points. The M7M Consent Agreement paragraph 1.A.v. prohibits any SO_2 emissions from the existing carbon bake furnaces unless such emissions have been re-routed to the new stack by December 31, 2023. This provision applies to emissions from carbon bake furnaces 1, 2, and 3 (in the event carbon bake 3 is restarted and goes through the New Source Review process), as identified in appendix A of the consent agreement. It further states that this deadline may be extended up to but no later than January 1, 2025. In a letter dated August 10, 2023, MoDNR extended the December 31, 2023, deadline to January 28, 2024.[5]

M7M curtailed operations in January 2024[6] and has not yet constructed the new carbon bake stack. M7M retains all of its operating permits so the facility could restart at any time and remains subject to the requirements of the state consent agreement. Therefore, should the company restart operations, it must comply with the hourly emissions limits and the prohibition to emit any SO_2 emissions from the carbon bake stacks unless emissions are routed to the new carbon bake stack, among other requirements.

For the reasons discussed throughout this document, the EPA is proposing to approve the state's attainment plan submittal, including the M7M and AECI New Madrid source-specific consent agreements, as meeting the relevant CAA requirements and thereby proposing to incorporate by reference the underlying requirements to become federally enforceable. During the state's public comment period, the EPA notified the state that the consent agreements contain

[5] This letter and other relevant correspondence between the MoDNR and M7M are included in the docket for this action.

[6] As referenced in a letter dated February 16, 2024, from the Missouri Attorney General to M7M and in various media articles, the M7M smelter ceased operations and laid off the majority of remaining workers on January 28, 2024. The letter can be found in the docket for this action and at this link: https://ago.mo.gov/wp-content/uploads/2024.02.16-Magnitude-7-Metals-Letter.pdf. Examples of media articles: Allison Kite, "One of nation's only aluminum smelters set to close in Missouri Bootheel," *Missouri Independent*, January 25, 2024 (https://missouriindependent.com/2024/01/25/one-of-nations-only-aluminum-smelters-set-to-close-in-missouri-bootheel); and Jason Plautz, "Aluminum shortage threatens US clean energy plans, *E&E News by Politico*, March 13, 2024 (https://www.eenews.net/articles/aluminum-shortage-threatens-us-clean-energy-plans/).

provisions that could be interpreted to allow the state and the affected source to modify or terminate them without following the statutorily-mandated process for SIP revisions.[7] *See* sections 110(i) and 110(l). Modification or termination of the consent agreements is also contrary to sections 110(a)(2)(a) and 172(c)(7) of the CAA which require the state to adopt enforceable emission limitations and control measures which provide for the implementation, maintenance, and enforcement of the NAAQS. Further, modification or termination of the consent agreements may complicate future redesignation of the area. The EPA may only redesignate a nonattainment area if it has determined that the improvement in air quality is due to "permanent and enforceable reductions in emissions" resulting from implementation of the SIP, among other requirements in section 107(d)(3)(E) of the CAA. While the EPA allows consent agreements or permit requirements to be incorporated by reference into a state's SIP to meet SIP requirements (see 40 CFR part 51, appendix V, section 2.1.(b)), the state must ensure that any such approved provisions cannot be altered by subsequent changes to the underlying agreements or permits unless the SIP is revised. Once approved by the EPA into the SIP as meeting the applicable SIP requirements, only changes made through the statutory SIP revision process may modify the approved requirements of the state's SIP.

In the sections that follow, the EPA explains its interpretation of several consent agreement provisions, including those that could result in a modification of the consent agreement. Specifically, the EPA explains its interpretation of those provisions in which a revision to the SIP would be necessary if the consent agreement is modified following the EPA's codification of the consent agreement into the SIP.

A. Termination of the Consent Agreements Upon Action by the EPA

The EPA has previously expressed its view that termination provisions that render the consent agreements unenforceable depending on the nature of the action the EPA takes are

[7] See the EPA's comment letter on the State's public notice draft dated December 19, 2022, included in the docket for this action.

inconsistent with the requirements of the CAA. *See* 89 FR 55140. The EPA's position is that enforceable mechanisms relied upon for attainment plan requirements, such as the consent agreements provided by Missouri as part of the New Madrid attainment plan, should not include provisions which would automatically, or at the source's or the State's option, terminate the agreement based on the EPA's action. For example, the M7M consent agreement termination provision states that, "This consent agreement shall also terminate if the SIP revision for the New Madrid County SO_2 Nonattainment Area or this Consent Agreement are disapproved by the U.S. Environmental Protection Agency." Further, the termination-related provisions included in the AECI New Madrid agreement provide for automatic termination of the agreement upon the effective date of a full disapproval and for optional termination after the effective date of a partial disapproval by the EPA.

Several provisions in the consent agreements state that, once the EPA approves their inclusion into the SIP, the agreements cannot be terminated or modified unless the SIP is revised. For example, paragraph 5 in "Other Provisions" of the AECI New Madrid agreement states that, "The parties further agree that after EPA has approved the SIP revision that contains this Consent Agreement, any subsequent modifications to this Consent Agreement, subject to the termination provisions in paragraph 13 of this Consent Agreement, will require approval from EPA before such modifications would take effect." Similarly, paragraph 7 of the M7M agreement includes this same language.

Termination provisions that are triggered upon the EPA's exercise of its statutory partial approval authority found in CAA section 110(k)(3) essentially limits or nullifies the effect of the EPA's action and is particularly problematic where there is more than one source and more than one enforceable mechanism. Because the EPA is proposing to fully approve the New Madrid attainment plan including the consent agreements for both M7M and AECI New Madrid, these termination provisions are not triggered by the EPA's full approval, and the agreements are therefore not terminated outside the EPA SIP approval process.

B. Modification of Emission Limits in the Magnitude 7 Metals Consent Agreement

Paragraph 1.A.xii. of the M7M consent agreement details the process by which the source may request a new 30-day rolling average emission limit to replace the hourly emission limits contained in paragraph 1.A.vii. in the consent agreement, and for the State to approve these replacement limits. The process includes updating the source's operating permit after state approval of the replacement limit. The State outlines the process by which the comparably stringent 30-day rolling average limits would be calculated based on data collected by the yet to be installed CEMS.

As part of the EPA's proposed approval of the state's attainment plan, the EPA approves the process for development and state approval of a new 30-day rolling average emission limit, but not the resulting 30-day rolling average emission limit. Modification of the relevant emissions limit relied on to meet the requirements of CAA section 172(c)(6)[8] would materially change the attainment plan and the basis for the EPA's approval of Missouri's attainment plan. A SIP revision would be necessary to incorporate a new (or replace the existing) emissions limit relied upon in the state's attainment plan. Such change also requires a justification to meet the requirements of section 110(l) of the CAA.

Therefore, any 30-day rolling average emission limit established either under the terms of the consent agreement or otherwise must go through public notice and comment and must be approved by the EPA before it could replace the hourly emission limits in the control strategy. Specifically, the new numeric emissions limit, averaging period, and the technical basis for such limit must all be made available for public review and comment before submission to the EPA for review and approval as a SIP revision.

C. Relocation of Monitors in the Magnitude 7 Metals Consent Agreement

[8] CAA section 172(c)(6): "Such plan provisions shall include enforceable emission limitations, […] as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date […]"

Paragraph 1.B.i. of the M7M consent agreement allows the source to request and the State to approve the relocation of any of the three existing ambient air SO_2 monitors surrounding the M7M property. Paragraph 1.B.ii. clearly limits the ability of the source to discontinue (or the State to approve such discontinuation) any of the three existing ambient air monitors surrounding the M7M property without going through the necessary EPA approval through the State's adherence to the annual monitoring network plan review process. The EPA agrees with this wording describing the process the State and source must follow to discontinue monitors.

The wording of paragraph 1.B.i., however, does not contain such limitations and therefore appears to circumvent the required process for review and approval by the EPA before relocation of required ambient air monitors. Specifically, 40 CFR 58.14(b) and other related provisions require that state agencies submit monitoring network changes to the EPA for review and approval, this is typically handled through annual network plans. The relocation of monitors (or other modifications to the ambient monitoring network) must be reviewed and approved by the EPA, per requirements in 40 CFR 58.14. However, 40 CFR 58.14(c)(6) provides that a monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site. Because the state's attainment plan relies on the continued operation of these monitors for contingency measure triggering language, they should not be moved in a manner that changes the scale of representation for the nonattainment area. The Data Requirements Rule (DRR) at 40 CFR 51.1203(c) also provides requirements for monitoring sites established pursuant the DRR, specifically that they must be operated similarly to SLAMS (state or local air monitoring stations) and be subject to the same SLAMS requirements of 40 CFR part 58. If the source or state significantly relocate any of the monitors as provided for under Paragraph 1.B.i. of the M7M consent agreement, such that they would no longer be appropriately sited to capture maximum impacts from the primary sources in the nonattainment area and therefore to serve as

the mechanism for triggering contingency measures, the EPA finds this would materially change the attainment plan and the basis for EPA's approval of Missouri's attainment plan. Therefore, a SIP revision would be necessary to incorporate a new (or replace the existing) reliance on the monitors in their current locations as a triggering mechanism for contingency measures.

D. Choice of Law Provisions

Both the M7M and AECI New Madrid consent agreements include provisions termed as "choice of law" clauses. Specifically, paragraph 10 of the M7M agreement and paragraph 8 of the AECI New Madrid agreement state, "*This Consent Agreement shall be construed and enforced according to the laws of the State of Missouri, and the terms stated herein shall constitute the entire and exclusive agreement of the parties hereto with respect to the matters addressed herein.*" The EPA interprets this provision to bind the "parties" to the consent agreement, namely the State of Missouri and AECI New Madrid and Magnitude 7 Metals, respectively. Furthermore, following approval of the consent agreements into the SIP by the EPA, enforcement of the consent agreement under sections 113 or 304 of the CAA would be governed by federal law.

E. Force Majeure Provisions

Both the Magnitude 7 Metals and AECI New Madrid consent agreements include "force majeure" provisions which excuse a source from liability if an event, such as a natural disaster, act of terrorism, labor dispute or stoppage, war, national or regional emergency, pandemic, epidemic, local disease outbreak, public health emergency, or quarantine, occurs which causes performance of an obligation under the consent agreement to be practically impossible, despite the source's best efforts to fulfill the obligation. If a force majeure event occurs that meets the criteria of the consent agreement, the consent agreement requires the source to notify the State within five business days following commencement of the force majeure event, and include actions taken to minimize the impact thereof. According to the terms of each consent agreement,

the source and the State agree that the pertinent obligations and deliverables of the consent agreement will be rescheduled rather than cancelled.

The EPA has evaluated the force majeure provisions in the consent agreements in light of CAA requirements for SIP provisions. The EPA interprets them to provide the sources an affirmative defense to any form of liability, whether monetary penalties or injunctive relief, in the event of violations of the emission limitations or other control requirements applicable to the sources, so long as the source meets the requirements to qualify for the force majeure provision. As such, these force majeure provisions constitute a "complete" affirmative defense and are thus consistent with CAA requirements for SIP provisions.

The EPA notes that the U.S. Court of Appeals for the District of Columbia Circuit (the DC Circuit) has issued decisions that are relevant to affirmative defense provisions. In the first, *Env't Comm. of the Fla Elec. Power Coordinating Grp, Inc. v. EPA*, the court held that affirmative defense type provisions that only preclude monetary penalties as a remedy for violations of emission limitations or other SIP requirements, *i.e.*, a "partial" affirmative defense, are invalid. *Env't Comm. of the Fla Elec. Power Coordinating Grp, Inc. v. EPA*, 94 F.4th 77, 116 (D.C. Cir. 2024). More recently, in *SSM Litigation Group v. EPA*, the court further clarified that an affirmative defense type provision that instead precludes any form of liability or remedy for violations of emission limitations or other SIP requirements, *i.e.*, a "complete" affirmative defense, is valid. *SSM Litigation Group v. EPA, et al.*, 150 F.4th 593 (D.C. Circ. 2025). In that decision, the D.C. Circuit held in part that a complete affirmative defense is permissible because it does not function as an exemption from applicable emission standards. 150 F.4th at 600 ("[a]n affirmative defense allows a defendant to avoid liability, but it does not alter the underlying legal requirements"). The court reasoned that a "complete affirmative defense to liability does not render an emission limitation non-continuous under 42 U.S.C. 7602(k)." *Id.* Although the court's decision in *SSM Litigation Group* pertained specifically to an affirmative defense provision that a state may elect to include in title V permits for sources in such state, the court's reasoning

would apply more broadly to affirmative defenses that a state may elect to include in its SIP provisions applicable to sources outside of the title V permit context.

The force majeure provision in each consent agreement at issue in this attainment plan functions as a complete affirmative defense because it allows a defendant to avoid liability if the failure to perform an obligation under the consent agreement has been caused by a force majeure event, but it does not alter the underlying legal requirements that are applicable to the source pursuant to the consent agreement. Accordingly, any emission limitations or other emission controls requirements in the consent agreements apply continuously, in accordance with section 302(k) of the CAA. Furthermore, in accordance with section 110 of the CAA, following approval of the consent agreement into the SIP, any modification of the consent agreement would require the state to submit, and the EPA to approve, the revised consent agreement as a revision to the SIP. Accordingly, the EPA proposes to approve the force majeure provisions in each consent agreement as complete affirmative defense provisions.

The state's attainment plan also includes a modeled attainment demonstration, based on the emissions limits and operational requirements set through the new source-specific consent agreements, which is further discussed in section IV. of this preamble as well as in the TSD included in the docket with this action. The other requirements addressed through Missouri's attainment plan are discussed further in section V. of this preamble.

IV. Review of Modeled Attainment Demonstration

The following discussion evaluates various features of the modeling that Missouri used in its attainment demonstration.[9] Missouri's submission contains a modeling demonstration that includes an assessment of the air quality impacts the State expected to result from emissions limitations and operational changes governing M7M and the AECI New Madrid Power Plant. The State's attainment demonstration modeling shows that the control strategy of a to-be-

[9] The input files used in the modeling demonstration are available by request from the contact listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

constructed carbon bake stack at M7M and new SO_2 emission limitations for both facilities results in modeled attainment of the 2010 1-hour primary SO_2 NAAQS throughout the New Madrid nonattainment area. This section discusses the EPA's review of the state's attainment demonstration. The EPA's Technical Support Document (TSD) included in the docket for this action provides greater detail about our technical review of the state's submission.

A. Modeling Approach and Receptor Grid

As previously stated, AERMOD is the preferred model for this application. Missouri's final attainment demonstration modeling analysis utilized AERMOD version 21112, the most current version available at the time of plan development. The State asserts that all analyses were conducted with the EPA's regulatory default options and considering the EPA's guidance documents, including the 2014 SO_2 SIP guidance and appendix W. The most recently available version of AERMAP (18081) was used to import terrain and source elevations from the National Elevation Dataset (NED). All building downwash analyses were conducted using the most recently available version (04274) of the EPA's Building Profile Input Program with Plume Rise Enhancements (BPIPPRM). The EPA finds the selection and use of these inputs to AERMOD, AERMAP and BPIPPRM to be appropriate and in accordance with appendix W and the 2014 SO_2 SIP guidance.

The receptor grid for the final attainment demonstration used 100-meter spacing throughout the nonattainment area outside of M7M's property boundary and 50-meter spacing along M7M's property boundary. The State also extended the receptor grid beyond the nonattainment area using 200-meter spacing to evaluate whether modeled violations occur outside the nonattainment area boundary. In addition, the State prepared a second modeling scenario with receptors placed at 100-meter spacing throughout the nonattainment area, but excluding receptors inside the New Madrid power plant's property boundary, to evaluate whether emissions from the power plant contribute to modeled violations within the M7M's

property boundary. The EPA's TSD includes further detail on the various receptor grid configurations utilized by Missouri.

B. Meteorological Data

Modeling for the New Madrid area attainment plan was conducted using the surface station data from the Cape Girardeau airport and upper air data from the Springfield airport, and used consecutive years from 2017-2021. This represents the most recent, readily available 5-year period at the time of the initial analysis per section 8.3.1.2 of appendix W. The State selected the Cape Girardeau and Springfield airport stations as best representative of meteorological conditions within the area of analysis, consistent with the nonattainment boundary designation. The State utilized meteorological data processed with AERMET version 21112, in combination with 1-minute Automated Surface Observing Stations (ASOS) wind data processed with AERMINUTE version 15272, to generate hourly average winds for input to AERMET. The EPA finds the selection and use of these meteorological inputs to AERMET to be appropriate and in accordance with appendix W and the 2014 SO_2 SIP guidance.

C. Emissions Data

Missouri's modeled attainment demonstration and control strategy focuses on the two largest sources of SO_2 in the area: M7M and the New Madrid Power Plant. One minor source, Alubar, was also included in the modeling due to its proximity and relation to M7M. Alubar produces aluminum rods from molten aluminum purchased from M7M. The plant's three rod mills and ancillary processes were previously part of M7M's operations until purchased by Alubar in December 2021. There are seven additional small point sources of SO_2 within and nearby the nonattainment area that the State evaluated for their potential contribution to concentrations in the area. Table 3 in EPA's TSD lists these sources. The combined total potential to emit for these seven sources is 1.4 tons per year of SO_2. Consistent with section 8.3.3 of appendix W, the State accounted for these minor point sources, as well as mobile and area (i.e., stationary non-point) sources of SO_2 emissions, through the use of a background SO_2

concentration in the modeling because they do not cause significant concentration gradients in the vicinity of the sources of interest. Section V.A. of this preamble contains more information on the emissions inventory element of the New Madrid attainment plan.

To determine the SO_2 emission rates to use in the attainment demonstration modeling, the State followed appendix W section 8.2.2.b and table 8-1, which specify that stationary point sources should be modeled at maximum allowable emissions levels assuming continuous operation (i.e., all hours of the time period under consideration) to demonstrate NAAQS compliance and/or establish appropriate SIP emission limits. The modeled hourly SO_2 emission rates used for M7M's main SO_2 emission release points (potline stack, potline roof vents, and proposed new carbon bake stack) and the New Madrid power plant stack are consistent with SO_2 emission limits established in the new consent agreements for M7M and the New Madrid Power Plant. Specifically, the State used hourly SO_2 emission rates for M7M of 1,015.42 lb/hr for the potline stack (EP61), 111.11 lb/hr for the potline fugitives roof vents (EP59A, 59B, 60A, and 60B), and 1,390.52 lb/hr for the new carbon back stack (EPAAA, to be constructed) in the attainment demonstration modeling, which are equivalent to the 1-hour SO_2 emission limits in section 1.A.vii of the M7M Consent Agreement. In addition, the State used a modeled hourly SO_2 emission rate of 6,412.8 lb/hr for both units at New Madrid Power Plant combined, which the State asserts is of comparable stringency to the 30-day rolling average SO_2 emission limit of 5,523 lb/hour in paragraph 1.A. of the consent agreement for New Madrid Power Plant. For the remainder of the explicitly modeled sources (the smaller SO_2 emission units at M7M and Alubar), the State based the modeled emission rates on potential to emit. All modeled hourly emission rates were held constant assuming continuous operation over the entire five-year period, 2017-2021. The final attainment demonstration modeling assumes the New Madrid Power Plant is operating both of its units at 100% load. The State also conducted a series of supplemental modeling runs that assumed the power plant is operating at 50% and 75% loads to ensure that the attainment demonstration modeling accounts for maximum potential impacts

from the power plant. The additional load scenarios are intended to address section 8.2.2.d. of appendix W, which specifies that at a minimum, a source should be modeled using the design capacity (100% load). It further states that sources which operate at substantially less than design capacity should also be modeled at loads such as 50% and 75% if the changes in the stack parameters associated with the operating conditions could lead to higher ground level concentrations.

The attainment demonstration modeling used good engineering practice (GEP) stack heights[10] as determined by BPIPPRM in accordance with appendix W and the 2014 SO_2 SIP guidance. M7M provided stack parameters for the facility's emission release points, including engineering design parameters for the proposed new carbon bake stack (to be constructed). AECI provided stack parameters for the various load scenarios for the New Madrid Power Plant. The state characterized emissions from the two New Madrid units as a combined stack in the modeling. BPIPPRM was used to input building parameters into AERMOD for M7M, New Madrid Power Plant, and Alubar.

The derivation of the modeled emission rates, modeled stack parameters, and the various load scenarios for the New Madrid Power Plant are discussed further in the TSD.

D. Emissions Limits

Section 172(c)(6) of the CAA requires that the State's attainment plan include enforceable emission limitations, and such other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emission rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to provide for attainment of the standard in the area by the applicable attainment date. *See* General Preamble at 13567-68. Part of the review of the State's attainment plan must address the use of these limits, both with respect to the general suitability of using such limits for the purpose

[10] See 40 CFR 51.118 and 40 CFR 51.100(hh) for more information on the EPA's stack height regulations and definition of good engineering practice stack height.

of meeting the requirements of CAA section 172(c)(6) and with respect to whether the particular limits included in the plan have been suitably demonstrated to provide for attainment. As specified in section 172(c)(6) and section 110(a)(2)(A) of the CAA and the 2010 1-hour SO_2 NAAQS at 75 FR 35520, emission limitations, control measures and other elements in the SIP must be enforceable by the State and the EPA.

1. Enforceability

Working with M7M and AECI New Madrid, the State developed a control strategy designed to bring the area into attainment of the 1-hour SO_2 NAAQS. Missouri's attainment plan for the New Madrid area relies on new consent agreements between the State and M7M and AECI New Madrid, respectively, as the enforceable mechanisms for the control strategy. The control strategy establishes source-specific control measures that include more stringent SO_2 emissions limits at both facilities and operational changes, specifically rerouting of emissions from the carbon bake furnaces through construction of a new stack at M7M. The M7M consent agreement prohibits emissions from the existing carbon bake stacks after December 31, 2023, unless those emissions have been re-routed to a new Carbon Bake stack. The consent agreement states that this deadline may be extended by MoDNR up to but no later than January 1, 2025. As noted previously, MoDNR extended the December 31, 2023, deadline to January 28, 2024.[11] The state's attainment plan relies on these new source consent agreements to satisfy required elements such as the control strategy and modeled attainment demonstration, RFP, RACM/RACT, and contingency measures.

The State relied on the final attainment demonstration modeling to determine the necessary emission limits for the New Madrid Power Plant and M7M that would result in modeled attainment of the NAAQS. [12]In addition to the 1-hour SO_2 emission limits established

[11] See correspondence between MoDNR and M7M related to deadline extensions as included in the docket for this action.

[12] The modeled attainment demonstration accounts for emissions from the two carbon bake furnaces as operating at their full hourly emissions limits as emitted from the yet-to-be-constructed Carbon Bake stack. This is conservative in nature because per the requirements and deadlines of the consent agreement, M7M is currently prohibited from operating the carbon bake furnaces.

for M7M, the State also established a 5,000 tons per year (tpy) facility-wide SO_2 emission limit for the facility in the consent agreement.[13] This annual facility-wide SO_2 emission limit was not set based on the attainment demonstration modeling and is not linked to attainment of the 2010 1-hour SO_2 NAAQS. The purpose of establishing a 5,000 tpy SO_2 limit for M7M is to allow credit in the attainment demonstration modeling for the dispersion characteristics of the proposed new carbon bake stack. Per the federal definition of dispersion technique at 40 CFR 51.100(hh)(2)(v), credit for certain dispersion techniques, including but not limited to increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack, is allowed in the model if the resulting total allowable SO_2 emissions from the facility do not exceed 5,000 tons per year. The EPA agrees that M7M could merge multiple uncontrolled SO_2 emission streams from its carbon bake furnaces into a single, taller stack constructed at GEP height in accordance with federal stack regulations, as long as the facility is subject to a 5,000 tpy SO_2 emission limit. The AECI New Madrid Power Plant emissions limits contained in the consent agreements and relied on as part of the area's control strategy are 30-day average emission limits. In accordance with EPA policy, the 30-day average limit is set at a lower level than the shorter-term emission rate used in the attainment demonstration; the relationship between these two values is discussed in more detail in the following section.

2. Longer-Term Average Limits

Table 13 in the TSD for this rulemaking presents results of the different load scenarios for the New Madrid Power Plant. Based on this table and our review, the EPA agrees that the 100% load scenario captures the maximum modeled impacts from the power plant and that using the modeled emissions rate from the 100% load scenario as the basis for establishing the emission limit for the power plant is appropriate.

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[13] Paragraph 1.A.vi of the M7M Consent Agreement states: *Facility-wide SO_2 emissions from Magnitude 7 shall not exceed 4,999.99 tons in any rolling 12-month period*. This is referred to as a 5,000 tpy emission limit for the purpose of this NPRM.

The State followed the procedure in appendix C of the 2014 SO_2 guidance to convert the New Madrid Power Plant's modeled hourly SO_2 emission rate to a 30-day rolling average SO_2 emission limit. The procedure is based on determining the ratio between 99th percentile emission rates for the applicable averaging time (30 days in this case) and 1-hour 99th percentile emission rates. The State first determined that a modeled hourly SO_2 emission rate of 6,412.80 lb/hr for the New Madrid Power Plant's units 1 and 2 combined is equivalent to the CEV in the attainment demonstration modeling, taking into account all other explicitly modeled sources (M7M and Alubar) and the background SO_2 concentration. Based on CEMS data for New Madrid Power Plant units 1 and 2 for the 5-year period from 2016-2020, the ratio between 99th percentile 30-day rolling average and 1-hour 99th percentile emission rates for both units combined was determined to be 0.86. This ratio is higher than the average ratio of 0.79 for sources with no control equipment listed in table 1 in appendix D of the EPA's 2014 SO_2 SIP Guidance, which indicates that the operations of New Madrid Power Plant's units are generally less variable than the average uncontrolled unit. The modeled hourly SO_2 emission rate of 6,412.80 lb/hr was then multiplied by 0.86, which results in a 30-day rolling average of 5,523 lb/hr for the two units combined.

Based on a review of the state's submittal, the EPA believes that the 5,523 lb/hr 30-day rolling average limit for both units 1 and 2 combined that is included in paragraph 1.A. of the Consent Agreement for the New Madrid Power Plant provides a suitable alternative to establishing a 1-hour average emission limit for this source. The state has used a suitable data base in an appropriate manner and has thereby applied an appropriate adjustment factor, yielding 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 rolling-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 EPA's 2014 SO_2 Nonattainment Guidance, the EPA has found that appropriately set longer-term average limits provide a reasonable basis by which nonattainment plans may provide for attainment. Based on its review of this general information as well as the particular information in Missouri's plan, the EPA finds that the 30-day rolling average limit for the New Madrid Power Plant, in combination with other limitations for M7M in the state's plan, will provide for attainment of the NAAQS. The EPA concludes that the modeling and comparably stringent longer-term emission limits in Missouri's plan adequately demonstrate that they provide for attainment of the 2010 primary 1-hour SO_2 NAAQS in the New Madrid County Nonattainment Area.

Notably, the State provided both the New Madrid Power Plant's CEV and the 30-day limit, along with the underlying analysis used to derive the 30-day limit, for public notice and comment prior to submission to the EPA for inclusion in the SIP. The State's calculations used to convert the New Madrid Power Plant's CEV to a 30-day rolling average limit of comparable stringency are discussed in greater detail in the TSD.

For M7M, the State determined the maximum hourly emissions rate for each emission point that would result in modeled attainment. Specifically, the State determined that maximum hourly SO_2 emission rates of 317.47 lb/hr for the new carbon bake furnace stack (to be constructed), 1,015.42 lb/hr for the existing pot line stack for pot lines 1 and 2, and 111.11 lb/hr for the pot line roof vents, which are equivalent to the hourly limits included in paragraph 1.A.vii of the M7M Consent Agreement, result in modeled attainment in combination with the SO_2 emission limits for the New Madrid Power Plant. These hourly limits are also presented as the CEV that the State would use to derive longer-term average limits once enough hourly data is recorded by the yet-to-be-installed CEMS. However, as described further in section III. above, it is the EPA's interpretation that the State may not revise the applicable emissions limit in the control strategy after EPA approval which codifies the emissions limits and operational requirements into federal regulations ensuring the limits as approved remain permanent and

federally enforceable. Therefore, in order for any revised emissions limits to become federally enforceable or replace limits that were already approved into the SIP, the state would need to follow the SIP revision process including public notice and EPA review and approval. Any subsequent changes made by the state to the control strategy or aspects of the attainment plan after approval by the EPA, would only change state enforceability not federal enforceability until approved as a formal SIP revision by the EPA.

E. Background Concentrations

The 2014 SO_2 Nonattainment Area SIP guidance recommends developing a uniform monitored background concentration based on monitored design values for the latest three-year period, regardless of the years of meteorological data used in the modeling. The guidance further states that in cases of nonattainment areas designated based on a monitor's data showing a NAAQS violation, it may be necessary to use a different representative monitor outside of the nonattainment area, particularly where the monitor has a high number of observations impacted by modeled sources. The 2024 Guidance on Developing Background Concentration for Use in Modeling Demonstrations[14] (2024 Background Concentration Guidance) provides guidance on the selection of nearby sources to explicitly model in the demonstration and the representativeness of the background concentration of sources not modeled explicitly.

Because the New Madrid nonattainment area was designated based on monitoring data and the SO_2 monitors in the area are impacted by the modeled sources, the State chose to rely on the regional rural background monitor located at Mark Twain State Park, which is approximately 236 miles (380 kilometers) northwest of the nonattainment area. Based on the Mark Twain State Park's 3-year design value for 2019-2021, the State selected a background SO_2 concentration of

[14] U.S. Environmental Protection Agency, 2024. Guidance on Developing Background Concentrations for Use in Modeling Demonstrations. Publication No. EPA–454/R–24–003. Office of Air Quality Planning and Standards, Research Triangle Park, NC. (https://www.epa.gov/system/files/documents/2024-11/background-concentrations.pdf).

13.08 micrograms per cubic meter (μg/m^3), equivalent to 5.0 ppb, which was held constant throughout the modeled time period.

Section 3.3 of the 2024 Background Concentration Guidance lists criteria to consider when determining representativeness of ambient monitoring data, including whether the monitor is located in an urban or rural setting similar to the project area, consistency of the wind and terrain patterns at the monitor to the project area, and whether data from the monitor have been used in previous analysis for the project area, among other factors. The EPA finds that the West Entrance monitor would be more representative of SO_2 background concentrations in the New Madrid nonattainment area based on the consistency of the wind and terrain patterns at this monitor due to its location within the nonattainment area. The EPA performed an analysis of 2020-2022 SO_2 concentrations measured at the West Entrance monitor when the monitor was not impacted by SO_2 emissions from explicitly modeled sources (the New Madrid Power Plant, M7M, or Alubar). Namely, the EPA performed a wind sector analysis at this monitor to determine ambient concentrations when winds originate from sectors not impacted by the modeled sources, in this case when winds originate from the south. Based on our analysis, we calculated an SO_2 background concentration of 10.5 μg/m^3 (4 ppb). The EPA's TSD included in the docket for this action includes more details on our analysis.

The EPA finds that an SO_2 concentration of 10.5 μg/m^3 (4 ppb) is representative of background SO_2 levels in the New Madrid nonattainment area. In addition, the EPA agrees that it is appropriate to represent SO_2 emissions from all sources in the area other than M7M, New Madrid Power Plant, and Alubar with the background concentration included in the modeling analysis, and that further consideration of these other sources/sectors as part of the area's control strategy is unnecessary.

F. Summary of Results

As described in this section of the preamble, the State's final attainment demonstration modeling relied on maximum allowable hourly SO_2 emission limits for the M7M potline stack,

potline roof vents, and proposed new carbon bake stack (yet to be constructed), as contained in the M7M Consent Agreement paragraph 1.A.vii. The modeling similarly relied on both of the New Madrid Power Plant's units operating at 100% load using an hourly SO_2 emission rate of comparable stringency to the 30-day rolling average SO_2 emission limit in the New Madrid Power Plant Consent Agreement paragraph 1.A. for both units combined. Hourly SO_2 emission rates based on potential to emit (PTE) for the smaller SO_2 sources at M7M and the Alubar rod mill were also included in the model. The final attainment demonstration modeling results show a maximum total modeled SO_2 concentration of 195.7 $\mu g/m^3$ (equivalent to 74.7 ppb). Table 14 of the TSD summarizes the results for the final attainment demonstration modeling, including the maximum modeled SO_2 contributions from individual sources, as well as the background SO_2 concentration. These results indicate that the control strategy established in the consent agreements for M7M and AECI New Madrid Power Plant result in modeled concentrations throughout the nonattainment area that comply with the 2010 1-hour SO_2 NAAQS of 75 ppb . The attainment modeling demonstration meets the technical requirements of appendix W and the 2014 SO_2 Nonattainment Area SIP guidance and shows modeled attainment throughout the nonattainment area, therefore the EPA is proposing to approve the attainment demonstration as meeting CAA sections 172(c)(1), (2), (6) and (9).

V. Review of Emissions and Emissions Controls

A. Emissions Inventory and the Quantification of Emissions

Section 172(c)(3) of the CAA requires that the state's attainment plan include a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in the area, including such periodic revisions as the Administrator may determine necessary to assure that the requirements of the CAA are met. Section 172(c)(4) of the CAA requires that the state's attainment plan expressly identify and quantify the emissions, if any, of any pollutant or pollutants which will be allowed, in accordance with section 703(a)(1)(B) of the CAA, from the construction and operation of major new or modified

stationary sources in the area. Section 172(c)(4) of the CAA also requires the plan demonstrate that the quantified emissions are consistent with the achievement of reasonable further progress and will not interfere with attainment of the NAAQS by the attainment date.

The emissions inventory and source emission rate data for an area serve as the foundation for air quality modeling and other analyses that enable states to: 1) estimate the degree to which different sources within a nonattainment area contribute to violations within the affected area; and 2) assess the expected improvement in air quality within the nonattainment area due to the adoption and implementation of control measures. As noted above, the state must develop and submit to the EPA a comprehensive, accurate and current inventory of actual emissions from all sources of SO_2 emissions in each nonattainment area, as well as any sources located outside the nonattainment area which may affect attainment in the area. *See* CAA section 172(c)(3) and the EPA's 2014 SO_2 Nonattainment Guidance.

Section 3 of the New Madrid attainment plan contains the emissions inventory element pursuant to the requirements of CAA section 172(c)(3) and 172(c)(4). The base year inventory establishes a baseline that is used to evaluate emissions reductions achieved by the control strategy and to assess reasonable further progress requirements. According to the EPA's 2014 SO_2 guidance, the SIP should also include a projected attainment year inventory that includes estimated emissions for all emission sources of SO_2 that were determined to have an impact on the affected nonattainment area for the year in which the area is expected to attain the standard, consistent with the attainment demonstration. The inventory should reflect projected emissions for the attainment year for all SO_2 sources in the nonattainment area.

The State's attainment SIP noted that, at the time, the most recent and available triennial inventory year was 2017, and the State found that it served as a suitable base year. Because the attainment date for this area is April 30, 2026, Missouri selected 2026 as the attainment year. Table 1 summarizes the 2017 base year SO_2 emissions inventory data for all emissions categories covering the entirety of New Madrid County. Table 2 summarizes the 2026 attainment year SO_2

emissions inventory data for all emissions categories covering the entirety of New Madrid county. The full emissions inventories for base and attainment years are included in the State's submission, included in the docket for this action, in appendices A and B, respectively. The State also confirms it meets the CAA section 172(c)(3) requirement for periodic revisions to such inventories by its continued compliance with 40 CFR part 51, subpart A, the air emissions reporting rule (AERR) and through submitting the relevant emissions data to the triennial national emissions inventory (NEI).

The State's attainment plan acknowledges that, although SO_2 emissions in and near the nonattainment area are principally attributable to point sources, a comprehensive emissions inventory should include an assessment of the other source sectors. The State asserted that it accomplished this by using estimates of air emissions for the onroad, nonroad, and nonpoint (area) sources from the EPA's 2017 National Emissions Inventory (NEI) datasets.[15] According to the State's sector summary analyses using the EPA's SCC (source classification code) full detail data files from the 2017 NEI, approximately 4.18 tons of SO_2 were emitted by onroad mobile sources in all of New Madrid County (this includes areas within and outside of the nonattainment area) which accounts for 0.02% of the county's total emissions. Nonroad mobile sources (which include non-road equipment, locomotives, commercial marine vessels, and aircraft) contributed approximately 1.10 tpy of SO_2, or 0.01% of the total. Nonpoint (area) contributed approximately 9.25 tpy of SO_2, or 0.05% of the total. As with the mobile sectors, the nonpoint totals also represent sums across all of New Madrid County. In contrast, the point source total emissions account for 17,254.74 tpy of SO_2, or 99.92% of the total emissions in New Madrid County. In 2017, M7M was not operating, so this point source estimate includes 2017 actual emissions from all other point sources and actual emissions from Magnitude 7 as reported for 2019. For the 2026

[15] Data, summaries, and documentation of the 2017 NEI are available at https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data.

attainment year, the state relied on projected emissions data from the EPA's 2016v2 modeling platform.[16]

Table 1. New Madrid County Base Year SO_2 Emissions Inventory Summary

Emission category	2017 SO_2 emissions (tpy)	Percent of total emissions
Point Source Total (does not include Magnitude 7 since they did not operate in 2017)	13,548.73	78.46%
Magnitude 7 (2019 emissions)	3,706.01	21.46%
Point source total with Magnitude 7 2019 emissions	17,254.74	99.92%
Non-point total	9.25	0.05%
Nonroad total	1.10	0.01%
Onroad total	4.18	0.02%
Total	17,269.27	

Table 2. New Madrid County Attainment Year SO_2 Emissions Inventory Summary

Emission category	2026 SO_2 emissions (tpy)	Percent of total emissions	Difference between 2026 and 2017 (negative value indicates decrease)
Point Source Total	21,440.75	99.98%	4,186.01
Non-point total	2.30	0.01%	-6.95
Nonroad total	0.52	0.00%	-0.58
Onroad total	1.73	0.01%	-2.45
Total	21,445.30		4,176.03

Table 2 shows a projected SO_2 emissions increase of 4,176 tons per year between the 2017 base year inventory and 2026. The State describes this projected increase is due to projected emissions from the New Madrid Power Plant as estimated by the EPA's Integrated Planning Model (IPM) projection tool in the 2016v2 modeling platform for 2026. Despite the projected increase in actual SO_2 emissions, the State points to the attainment demonstration which shows modeled attainment of the 2010 SO_2 NAAQS based on new emissions limits for

[16] Data, summaries, and documentation of the EPA's 2016v2 modeling platform are available at https://www.epa.gov/air-emissions-modeling/2016v2-platform.

both New Madrid Power Plant and M7M (totaling approximately 34,400 tons per year) and potential to emit for other point sources in the nonattainment area. [17]

As already noted, the State's attainment SIP must identify and quantify the emissions which will be allowed from the construction and operation of major new or modified stationary sources in the area (see CAA section 172(c)(4)). The State must demonstrate that such emissions will be consistent with RFP requirements and will not interfere with attainment of the 1-hour SO_2 NAAQS. These requirements are met by the state's preconstruction permitting program and implementation of the Nonattainment New Source Review Rules (NNSR). See section V.C. Nonattainment New Source Review of this document below, for more information. The EPA is proposing to determine that the State has met the requirements of CAA section 172(c)(3) and 172(c)(4). Therefore, the EPA proposes to approve the emission inventory element of Missouri's SO_2 attainment SIP for New Madrid.

B. Reasonably Available Control Measures/Reasonably Available Control Technology

CAA section 172(c)(1) states that attainment plans should "provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the [NAAQS]." CAA section 192(a) requires that attainment plans for the SO_2 NAAQS provide for future attainment as expeditiously as practicable, but no later than 5 years from the effective date of the area's designation as nonattainment. For areas designated nonattainment effective April 30, 2021, attainment plans were required to contain demonstrations that the area would attain as expeditiously as practicable, but no later than April 30, 2026.

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[17] For M7M, annualized SO_2 emissions totaling 6,325.3 tons/year were included in the attainment demonstration modeling (6,324.7 tons/year based on SO_2 emission limits in the Consent Agreement for the potline and carbon bake processes plus 0.6 tons/year potential to emit for other smaller SO_2 sources at the facility). For the New Madrid Power Plant, annualized SO_2 emissions totaling 28,088.1 tons/year were included in the attainment demonstration modeling consistent with the SO_2 limits in the Consent Agreement. See the TSD for more details on modeled emission rates for these facilities, in particular section 3 and tables 4, 5, and 6.

Missouri's plan for attaining the 1-hour SO_2 NAAQS in the New Madrid nonattainment area is based on a variety of control measures and emissions limits at M7M and AECI New Madrid. Those measures were included in the State's attainment SIP as consent agreements between the State and the relevant source.[18] Missouri's plan required compliance with these measures no later than January 1, 2025. Missouri has determined that these measures suffice to provide for timely attainment.

Table 3 below lists all the sources included in the control strategy, contains descriptions of the control measures, and provides effective dates. Source specific allowable emission rates, compliance and monitoring obligations, reporting and recordkeeping requirements, and implementation deadlines are detailed in each source's consent agreement included with the SIP submittal, in the docket for this action.

Table 3. Summary of New Madrid Attainment Plan Control Strategy

Source	**Consent agreement reference**	**SO_2 emission limit/operational change**	**Effective date**
Magnitude 7 Metals	1.A.v.	Magnitude 7 shall not emit any SO_2 emissions from the current emission release points for the carbon bakes (EP 98, EP 99 and EP AA, as identified in appendix A) unless such emissions have been re-routed to the new stack (EP AAA) included in the Engineering Control Plan.	December 31, 2023, which may be extended up to but no later than January 1, 2025.
	1.A.vi.	Facility-wide SO_2 emissions from Magnitude 7 shall not exceed 4,999.99 tons in any rolling 12-month period.	State effective date of consent agreement, April 13, 2023.
	1.A.vii.	Magnitude 7 shall meet or emit less than the maximum 1-hour average SO_2 emissions rate limits in pounds per hour ("lbs/hr") as follows:	January 1, 2025.

[18] Appendices E and F to the state's attainment SIP contain the source specific consent agreements which define the RACM/RACT requirements.

		Pot Line Stack (EP 61): 1,015.42 lbs/hr Pot Line Fugitives (Roof Vents – EP's 59A, 59B, 60A, and 60B): 111.11 lbs/hr * New Carbon Bake Stack (EPAAA): 317.47 lbs/hr * The limit applies to the combined emissions from the identified roof vent emission points.	
AECI New Madrid Power Plant	1.A.	New Madrid Power Plant agrees to a combined maximum 30-day daily-rolling average SO_2 emissions rate of 5,523 lbs/hr for boilers EP-01 and EP-02	January 1, 2023.

Table 4. Air Monitoring Data from the New Madrid Nonattainment Area Monitors

		Design values (ppb)				**99th percentile daily max 1-hour SO_2 concentrations (ppb)**			
Monitor Site Name	**1-hour SO_2 NAAQS (ppb)**	**2019 - 2021**	**2020 - 2022**	**2021 - 2023**	**2022 - 2024**	**2021**	**2022**	**2023**	**2024**
AECI Water Tower	*75*	376	417	452	396	405	479	473	235
East Graveyard	*75*	333	291	291	241	285	304	283	136
West Entrance	*75*	83	95	115	94	88	128	128	26

The EPA concludes that the measures relied on by the State to satisfy the requirement in CAA section 172(c)(1) to adopt and submit all RACM as needed to attain the standards as expeditiously as practicable meet the relevant CAA requirements and therefore the EPA proposes to approve this element of the state's attainment plan.

C. Nonattainment New Source Review

Section 172(c)(5) requires that the State's attainment plan provisions shall require permits for the construction and operation of new or modified major stationary sources anywhere in the nonattainment area, in accordance with section CAA section 173. The EPA most recently approved revisions to the State's nonattainment new source review provisions as part of the state's construction permits required rule, 10 Code of State Regulations (CSR) 10-6.060, on April 23, 2026. (91 FR 21724) These provisions provide for appropriate new source review for SO_2 sources undergoing construction or major modification in the New Madrid nonattainment area without need for modification of the SIP-approved rule. Therefore, the EPA concludes that the requirements of CAA section 172(c)(5) have been met and therefore proposes to approve this element of the State's SO_2 attainment plan.

D. Reasonable Further Progress

Section 172 of the CAA requires that attainment plans include provisions to address reasonable further progress (RFP). As discussed in the EPA's 2014 SO_2 Nonattainment Area SIP Guidance, this requirement is more practically relevant and important for NAAQS pollutants impacted by emissions from numerous and diverse sources, where the relationship between any individual source and overall air quality is not easily discernable, and where NAAQS attainment may require inventory-wide emissions reductions. The relationship between ambient SO_2 concentrations and SO_2 emission sources is more directly quantifiable as compared to other NAAQS pollutants, and there is frequently only one (or few) primary source of SO_2 emissions responsible for poor air quality in a nonattainment area. Consequently, full progress to attainment is achieved as soon as the one (or few) emission source is subject to an enforceable emission limitation. Therefore, for SO_2 SIPs, which address a small number of affected sources, requiring expeditious compliance with attainment emission limits is sufficient to address the RFP requirement. CAA section 192(a) requires that SO_2 attainment plans provide for future attainment of the NAAQS as expeditiously as practicable, but no later than 5 years from the effective date of the area's designation as nonattainment. As noted in the State's attainment SIP,

the EPA has interpreted that RFP is best construed as "adherence to an ambitious compliance schedule" in previous rulemakings.[19]

Table 3 in section V.B. RACM/RACT notes the SO_2 emission limits and application of control technologies established for M7M and AECI New Madrid. The State asserts that this plan requires that affected sources implement appropriate control measures as expeditiously as practicable in order to ensure attainment of the standard by the applicable attainment date. The State again relies on the consent agreements established for M7M and AECI New Madrid to satisfy the RFP requirements. The State concludes that its plan provides for RFP in accordance with the approach to RFP described in the EPA's 2014 SO_2 Nonattainment Area SIP guidance, and the EPA proposes that Missouri's plan meets the requirements for RFP as contained in CAA section 172(c)(2).

E. Contingency Measures

Section 172(c)(9) of the CAA requires that the state's attainment plan include additional measures, called contingency measures, which will take effect if an area fails to meet RFP or fails to attain the NAAQS by the applicable attainment date. The EPA's 2014 SO_2 Nonattainment Guidance describes special features of SO_2 attainment planning that influence the suitability of alternative means of addressing the requirement in CAA section 172(c)(9) for contingency measures for SO_2. That is, an SO_2 NAAQS attainment plan contains the emission limitations and other control measures that are directly and quantifiably necessary to attain the SO_2 NAAQS in the area, and consequently, the area would be unlikely to fail to attain the NAAQS if the state implements such attainment plan requirements.[20] Therefore, the EPA's longstanding approach is that an appropriate means of satisfying the contingency measures requirement for the SO_2 NAAQS is for the state to have a comprehensive enforcement program that identifies sources of violations of the SO_2 NAAQS and for the state to undertake aggressive

[19] See 57 FR 13498, at 13547 (April 16, 1992).
[20] See 75 FR 35520 at 35576 (June 22, 2010) and the 2014 SO_2 Nonattainment Guidance.

follow-up for compliance and enforcement. *See* the Indiana, PA NFRM (89 FR 74836, Sept. 13, 2024). States may additionally or alternatively include other forms of contingency measures as part of the attainment plan.

While the state's attainment plan contains specific contingency measures that apply to M7M, the State of Missouri submitted a clarification letter to the EPA on December 11, 2025, explaining that its enforcement program would also serve as a contingency measure. The letter is included in the docket for this action. In that letter, the State provides that the existing SIP-approved enforcement program is authorized to identify sources of violations of the SO_2 NAAQS and to undertake aggressive follow-up for compliance and enforcement. As noted previously, the EPA's policy is that a State may reference its comprehensive enforcement program as an appropriate means of satisfying the contingency measures requirement for the SO_2 NAAQS.

The State also included specific contingency measures in the M7M agreement. Paragraph 1.D.i. and ii. of the M7M agreement contains the contingency measure triggering language, which states, "*i. Beginning 60 calendar days after commencement of operation of the new Carbon Bake stack, Magnitude 7 shall be subject to contingency measures in the event the fourth highest 1-hour daily maximum SO_2 concentration recorded at any of the individual three ambient SO_2 monitors surrounding the facility exceeds 75 ppb in a single calendar year. ii. Contingency Measure 1. Following Department notification to Magnitude 7 that the first triggering event has occurred, Magnitude 7 shall respond in writing within 14 calendar days of the notification acknowledging the triggering event and committing to the following contingency measure –*" Subparagraph 1.D.ii.a. contains the first measure which includes an enhanced leak detection plan including inspections and repair requirements. If another triggering event occurs nine months or more after implementation of this first measure, the facility must implement additional contingency measures, including purchasing anodes offsite and cessation of the carbon bake furnaces or more stringent sulfur limits either with or without installation of flue gas

desulfurization control technology (see subparagraphs 1.D.iii. through vi. of the M7M consent agreement).

At the time of the State's SIP development and negotiations with M7M, the triggering language specifying the measures would be triggered beginning 60 calendar days after commencement of operation of the new Carbon Bake stack, was reasonable. Specifically, the language was drafted under the assumption that M7M would fully implement and comply with the control strategy requirements of the attainment plan, such as constructing the new stack, on the established deadlines. However, due to events occuring after the State submitted its attainment plan to the EPA, the source curtailed operations and has not yet constructed the new Carbon Bake stack. Should the source restart operations, the source would immediately be subject to the requirements of the consent agreement including the prohibition to emit from the existing carbon bake furnace stacks unless the emissions are re-routed to the new carbon bake stack.[21] In this situation where the source resumes operations and complies with the control strategy by constructing and operating the new carbon bake stack, the contingency measures and triggering language would apply as originally intended by the state.

If the source chose to resume operations without building the new Carbon Bake stack and instead purchases anodes offsite (which is listed as Contingency Measure Option A in 1.D.iii.a.), operation of the existing carbon back furnaces would not be necessary.[22] It is unclear as to whether an exceedance would trigger contingency measures since the new stack has not been constructed. In this hypothetical scenario, the requirements of the consent agreement alone would not satisfy the contingency measure requirements of CAA § 172(c)(9). However, the EPA finds that the robust enforcement program described in the State's December 11, 2025, letter operates as an adequate contingency measure in any operating scenario.

The State's December 11, 2025, clarification letter also commits to revising the M7M

[21] See paragraph 1.A.v. of the M7M consent agreement.
[22] M7M requested to pursue this option of purchasing offsite anodes in January 2024, but did not pursue this and curtailed operations. See correspondence between M7M and MoDNR included in the docket for this action.

consent agreement and submitting a formal SIP revision should the company restart operations without building the stack. This subsequent agreement and associated SIP revision would then codify the revised control strategy requirements and commensurate contingency measures.

As explained previously, the EPA finds the control strategy contained in the state's attainment plan, which primarily relies on construction of a new carbon bake stack and associated emissions limits, meets the relevant CAA requirements for attainment plans. The attainment plan includes contingency measures required by CAA section 172(c)(9) that are commensurate with the control strategy. In addition, the state's December 11, 2025, clarification letter describes how its comprehensive enforcement program identifies sources of violations of the SO_2 NAAQS and the process it will undertake in the event the M7M facility resumes operations without constructing the new stack. The EPA proposes to approve the state's robust enforcement program and the contingency measures provisions of the M7M consent agreement as meeting the requirements of CAA section 172(c)(9).

VI. Proposed Action

The EPA is proposing to approve Missouri's SIP submission, which the state submitted to the EPA on May 3, 2023, as it provides for attainment of the 2010 1-hour SO_2 NAAQS for the New Madrid SO_2 nonattainment area and satisfies other nonattainment area planning requirements. This SO_2 attainment plan includes Missouri's attainment demonstration for the New Madrid area. In addition to an attainment demonstration, Missouri's plan addresses the requirements for meeting reasonable further progress (RFP) toward attainment of the NAAQS, reasonably available control measures and reasonably available control technology (RACM/RACT), base-year and projection-year emission inventories, nonattainment new source review (NNSR), emission limitations necessary to provide for attainment, and contingency measures.

The EPA has determined that Missouri's SO_2 attainment plan meets applicable requirements of section 172 of the CAA. The EPA's analysis is discussed in this proposed

rulemaking. In addition, the technical support document (TSD) is also available in the docket for this action. The TSD provides additional explanation of the EPA's analysis supporting this proposal.

The EPA is soliciting public comments for 30 days following the publication of this proposed action in the *Federal Register* and will take these comments into consideration in its final action.

VII. Incorporation by Reference

In this document, the EPA is proposing to include regulatory text in an EPA final rule that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to add incorporation by reference of the following source-specific consent agreements as requested by the State of Missouri: APCP-2022-047A and APCP-2022-048A. These agreements are discussed in sections III. through V. of this preamble and as set forth below in the proposed amendments to 40 CFR part 52. The EPA has made, and will continue to make, these materials generally available through https://www.regulations.gov and at the EPA Region 7 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

VIII. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Is not an Executive Order 14192 (90 FR 9065, February 6, 2025) regulatory action because

this action is not significant 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 (Pub. L. 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where 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.

Dated: April 28, 2026.

James Macy,
Regional Administrator,
Region 7.

For the reasons stated in the preamble, EPA proposes to amend 40 CFR part 52 as set forth below:

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 AA–Missouri

2. In § 52.1320:

a. The table in paragraph (d) is amended by adding the entries "(39)" and "(40)" in numerical order.

b. The table in paragraph (e) is amended by adding the entry "(86)" in numerical order.

The additions read as follows:

§ 52.1320 Identification of plan.

* * * * *

(d) * * *

EPA-Approved Missouri Source-Specific Permits and Orders

Name of source	Order/Permit number	State effective date	EPA Approval date	Explanation
* * * * * * *				
(39) Magnitude 7 Metals	APCP-2022-047A	4/13/2023	**[Date of publication of the final rule in the Federal Register]**, 91 FR **[Federal Register page where the document begins of the final rule]**	[EPA-R07-OAR-2026-2938; FRL-13334-01-R7].

(40) AECI New Madrid	APCP-2022-048A	4/13/2023	**[Date of publication of the final rule in the Federal Register]**, 91 FR **[Federal Register page where the document begins of the final rule]**	[EPA-R07-OAR-2026-2938; FRL-13334-01-R7].

* St Louis County.

(e) * * *

EPA-Approved Missouri Nonregulatory SIP Provisions

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State submittal date	EPA approval date	Explanation
* * * * * * *				
(86) 2010 1-hour Primary SO_2 National Ambient Air Quality Standard Attainment Plan for the New Madrid Nonattainment Area	A portion of New Madrid County	5/3/2023	**[Date of publication of the final rule in the Federal Register]**, 91 FR **[Federal Register page where the document begins of the final rule]**	[EPA-R07-OAR-2026-2938; FRL-13334-01-R7].

[FR Doc. 2026-09054 Filed: 5/6/2026 8:45 am; Publication Date: 5/7/2026]