



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R09-OAR-2020-0109; FRL-10014-84-Region 9]

#### **Partial Approval and Partial Disapproval of Air Quality Implementation Plans; Arizona; Nonattainment Plan for the Hayden SO<sub>2</sub> Nonattainment Area**

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

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is finalizing a partial approval and partial disapproval of an Arizona state implementation plan (SIP) revision for attaining the 2010 1-hour primary sulfur dioxide (SO<sub>2</sub>) national ambient air quality standard (NAAQS or “standard”) for the Hayden SO<sub>2</sub> nonattainment area (NAA). This SIP revision (hereinafter called the “Hayden SO<sub>2</sub> Plan” or “Plan”) includes Arizona’s attainment demonstration and other elements required under the Clean Air Act (CAA or “Act”). The EPA is approving the base year and projected emissions inventories and affirming that the new source review requirements for the area have been met. We are disapproving the attainment demonstration, as well as other elements of the Plan tied to this demonstration, namely, the requirement for meeting reasonable further progress (RFP) toward attainment of the NAAQS, reasonably available control measures and reasonably available control technology (RACM/RACT), enforceable emissions limitations and control measures, and contingency measures.

**DATES:** This rule will be effective on **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** The EPA has established a docket for this action under Docket No. EPA-R09-OAR-2020-0109. All documents in the docket are listed on the <https://www.regulations.gov>

website. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available through <https://www.regulations.gov>, or please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section for additional availability information. If you need assistance in a language other than English or if you are a person with disabilities who needs a reasonable accommodation at no cost to you, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

**FOR FURTHER INFORMATION CONTACT:** Ashley Graham, EPA Region IX, Air Division, Air Planning Office, 75 Hawthorne St., San Francisco, CA 94105. By phone: (415) 972-3877 or by email at [graham.ashleyr@epa.gov](mailto:graham.ashleyr@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document, “we,” “us,” and “our” refer to the EPA.

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### **I. Background**

On June 22, 2010, the EPA promulgated a new 1-hour primary SO<sub>2</sub> NAAQS of 75 parts per billion (ppb) (hereinafter called “the 2010 SO<sub>2</sub> NAAQS” or “the SO<sub>2</sub> NAAQS”). This standard is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of daily maximum 1-hour average concentrations does not exceed 75 ppb, as

determined in accordance with appendix T of 40 CFR part 50.<sup>1</sup> On August 5, 2013, the EPA designated 29 areas of the country as nonattainment for the 2010 SO<sub>2</sub> NAAQS, including the Hayden SO<sub>2</sub> NAA within Arizona.<sup>2</sup> These area designations became effective on October 4, 2013. Section 191(a) of the CAA directs states to submit SIP revisions for areas designated as nonattainment for the SO<sub>2</sub> NAAQS to the EPA within 18 months of the effective date of the designation, i.e., in this case by no later than April 4, 2015. Under CAA section 192(a), these SIP submissions are required to include measures that will bring the NAA into attainment of the NAAQS as expeditiously as practicable, but no later than five years from the effective date of designation. The attainment date for the Hayden SO<sub>2</sub> NAA was October 4, 2018.

Nonattainment plans for SO<sub>2</sub> must meet sections 110, 172, 191, and 192 of the CAA. The EPA's regulations governing nonattainment SIP submissions are set forth at 40 CFR part 51, with specific procedural requirements and control strategy requirements residing at subparts F and G, respectively. Soon after Congress enacted the 1990 Amendments to the CAA, the EPA issued comprehensive guidance on SIP revisions in the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" ("General Preamble").<sup>3</sup> Among other things, the General Preamble addressed SO<sub>2</sub> SIP submissions and fundamental principles for SIP control strategies.<sup>4</sup> On April 23, 2014, the EPA issued guidance for meeting the statutory requirements in SO<sub>2</sub> SIP submissions in a document titled, "Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions" ("2014 SO<sub>2</sub> Guidance").<sup>5</sup> In the 2014 SO<sub>2</sub> Guidance, the EPA described the statutory requirements for a complete nonattainment plan, which include:

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<sup>1</sup> 75 FR 35520 (codified at 40 CFR 50.17(a)-(b)).

<sup>2</sup> 78 FR 47191 (codified at 40 CFR part 81, subpart C).

<sup>3</sup> 57 FR 13498 (April 16, 1992).

<sup>4</sup> *Id.* at 13545-13549, 13567-13568.

<sup>5</sup> EPA, Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions, April 23, 2014, available at [https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance\\_nonattainment\\_sip.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf).

an accurate emissions inventory of current emissions for all sources of SO<sub>2</sub> within the NAA; an attainment demonstration; a demonstration of RFP; implementation of RACM (including RACT); new source review; enforceable emissions limitations and control measures; conformity; and adequate contingency measures for the affected area.

For the EPA to fully approve a SIP revision as meeting the requirements of CAA sections 110, 172, 191, and 192, and the EPA's regulations at 40 CFR part 51, the plan for the affected area needs to demonstrate that each of the aforementioned requirements has been met. Under CAA section 110(l), the EPA may not approve a plan that would interfere with any applicable requirement concerning NAAQS attainment and RFP, or any other applicable requirement. Under CAA section 193, no requirement in effect (or required to be adopted by an order, settlement, agreement, or plan in effect before November 15, 1990) in any area that is a NAA for any air pollutant may be modified in any manner unless it ensures equivalent or greater emission reductions of such air pollutant.

The EPA published a notice on March 18, 2016, finding that Arizona and other states had failed to submit the required SO<sub>2</sub> nonattainment plans for the Hayden SO<sub>2</sub> NAA and several other areas by the submittal deadline.<sup>6</sup> This finding, which became effective on April 18, 2016, initiated a deadline under CAA section 179(a) for the potential imposition of new source review offset and highway funding sanctions. Additionally, under CAA section 110(c), the finding triggered a requirement that the EPA promulgate a federal implementation plan within two years of the effective date of the finding unless the State has submitted, and the EPA has approved, the nonattainment plan as meeting applicable requirements.

In response to the EPA's finding, the Arizona Department of Environmental Quality

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<sup>6</sup> 81 FR 14736 (March 18, 2016).

(ADEQ) submitted the Hayden SO<sub>2</sub> Plan on March 9, 2017, and submitted associated final rules on April 6, 2017.<sup>7</sup> The EPA issued letters dated July 17, 2017, and September 26, 2017, finding the submittals complete and halting the sanctions clock under CAA section 179(a).<sup>8</sup>

## II. Public Comments and EPA Responses

The EPA proposed to partially approve and partially disapprove the Hayden SO<sub>2</sub> Plan on May 22, 2020.<sup>9</sup> Our proposed action contains more information on the basis for this rulemaking and on our evaluation of the submittal. In a separate, concurrent action, we also proposed a limited approval and limited disapproval of Arizona Administrative Code, Title 18, Chapter 2, Article 13, Section R18-2-B1302 (“Rule B1302”).<sup>10</sup>

The EPA’s proposed action for the Hayden SO<sub>2</sub> Plan provided a 30-day public comment period. During this period, we received comments from Freeport-McMoRan Incorporated (FMI) and ASARCO LLC (“Asarco”).<sup>11,12</sup> We also received comments from ADEQ, submitted to the docket for our related proposal on Rule B1302, that are relevant to our proposed action on the Hayden SO<sub>2</sub> Plan.<sup>13</sup> All comments received on both proposals, including the comments from

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<sup>7</sup> Letters dated March 8, 2017, and April 6, 2017, from Tim Franquist, Director, Air Quality Division, ADEQ, to Alexis Strauss, Acting Regional Administrator, EPA Region IX. Although the cover letter for the Hayden SO<sub>2</sub> Plan was dated March 8, 2017, the Plan was transmitted to the EPA on March 9, 2017.

<sup>8</sup> Letters dated July 17, 2017, and September 26, 2017, from Elizabeth Adams, Acting Air Division Director, EPA Region IX, to Tim Franquist, Director, Air Quality Division, ADEQ.

<sup>9</sup> 85 FR 31118.

<sup>10</sup> 85 FR 31113 (May 22, 2020).

<sup>11</sup> Letter dated June 22, 2020, from Todd Weaver, Senior Counsel, Freeport-McMoRan, to Rulemaking Docket EPA-R09-2020-0109, Subject: “Re: Comments on Partial Approval and Partial Disapproval of Air Quality Implementation Plans; Arizona Nonattainment Plan for the Hayden SO<sub>2</sub> Nonattainment Area (EPA-R09-OAR-2020-0109) and Limited Approval, Limited Disapproval of Arizona Plan Revisions, Hayden Area; Sulfur Dioxide Control Measures – Copper Smelters (EPA-R09-OAR-2020-0173).”

<sup>12</sup> Letter dated June 22, 2020, from Amy Veek, Environmental Manager, Asarco Hayden Operations, ASARCO LLC, to Ashley Graham, Air Planning Office, Air Division, EPA Region 9, Subject: “Re: Comments of ASARCO LLC on (1) “Partial Approval and Partial Disapproval of Air Quality Implementation Plans; Arizona; Nonattainment Plan for the Hayden SO<sub>2</sub> Nonattainment Area, 85 Fed. Reg. 31118 (May 22, 2020), Docket No. EPA-R09-OAR-2020-0109. (2) “Limited Approval, Limited Disapproval of Arizona Air Plan Revisions, Hayden Area; Sulfur Dioxide Control Measures—Copper Smelters, 85 Fed. Reg. 31113 (May 22, 2020), Docket No. EPA-R09-OAR-2020-0173.”

<sup>13</sup> Letter dated June 18, 2020, from Daniel Czecholinski, Air Quality Division Director, ADEQ, to Rulemaking

ADEQ, are included in the docket for this action. The comments from FMI pertain to Rule B1302 and are addressed in our final action on the rule. Copies of these responses are also included in the docket for this action.<sup>14</sup> The comments from ADEQ and from Asarco, along with our responses, are summarized below.

*A. Comments from ADEQ*

*Comment:* ADEQ’s comment letter expresses concern that the EPA’s proposed action does not clearly acknowledge the work that ADEQ and Asarco have completed since identifying the modeling error that was part of the basis for the EPA’s proposed disapproval of the modeled attainment demonstration and related elements. ADEQ describes the modeling error that was discovered in 2017 after the SIP revision was submitted to the EPA and discusses the extensive work that was conducted to develop a revised modeling methodology. These efforts include additional analyses, work to justify new assumptions and modeling parameters, and the development of new modeling files and a modeling technical support document (TSD), draft versions of which were shared with EPA staff for review. ADEQ does not dispute the modeling error and acknowledges that the EPA was required to take action on the SIP revision submitted in March 2017. However, ADEQ expresses concern that the language in the EPA’s proposal could lead the reader to believe that it knowingly submitted a SIP revision containing a flawed attainment demonstration, that the error was a recent discovery, or that it has taken no action to resolve the modeling issue. ADEQ contends that a clarification regarding the additional

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Docket EPA-HQ-OAR-2020-0109, Subject: “Partial Approval Partial Disapproval of Air Quality Implementation Plans; Arizona; Nonattainment Plan for the Hayden SO<sub>2</sub> Nonattainment Area, Docket ID Number: EPA-HQ-OAR-2020-0109.” ADEQ’s comment letter mistakenly references Rulemaking Docket “EPA-HQ-OAR-2020-0109” instead of the rulemaking docket for this action, “EPA-R09-OAR-2020-0109,” and was submitted to the rulemaking docket for our related proposal on Rule B1302, “EPA-R09-OAR-2020-0173.”

<sup>14</sup> Response to Comments Document for the EPA’s Final Actions on the “Arizona State Implementation Plan Revision: Hayden Sulfur Dioxide Nonattainment Area for the 2010 SO<sub>2</sub> NAAQS” and Rule R18-2-B1302, “Limits on SO<sub>2</sub> Emissions from the Hayden Smelter” (September 2020).

modeling efforts would help avoid any misunderstanding. Finally, ADEQ asserts that the new modeling methodology shows attainment of the NAAQS and that it was approved by the EPA in 2018.

*Response:* We agree that extensive work has been done by ADEQ and Asarco, in consultation with EPA staff, to correct the flawed modeling in the March 2017 submittal. While we noted in our proposal that ADEQ has been working with Asarco and the EPA on revised modeling, we acknowledge that the high level of effort that has gone into that work was not clearly presented in our proposed action and the sequence of ADEQ submitting the SIP revision in March 2017, identifying the error later in 2017, and subsequently working extensively with Asarco and the EPA to correct the error was not discussed.

In response to the statement that the new methodology was approved by the EPA in 2018, we would like to clarify that, while ADEQ and Asarco consulted with EPA staff to revise the modeling, and has shared new modeling files and a modeling TSD with EPA staff, these documents have not undergone ADEQ public notice and comment or been formally submitted to the EPA as a SIP revision. Therefore, the revised modeling has not been formally approved by the EPA and was not evaluated as part of our proposed action. Only upon such future submission, if it occurs, will the EPA be able to formally evaluate and make a determination regarding its adequacy to demonstrate attainment of the 2010 SO<sub>2</sub> NAAQS.

*B. Comments from Asarco*

*Comment:* Asarco notes that it has spent considerable time and resources since 2011, in collaboration with ADEQ and the EPA, to achieve attainment of the 2010 SO<sub>2</sub> NAAQS in the Hayden NAA. The commenter states that Asarco's efforts, including improvements to the capture and control systems, retrofits and rebalancing of the converter aisle to enhance sulfur

recovery at the acid plant, and installation of an improved preheater system to reduce startup emissions, have resulted in SO<sub>2</sub> emission reductions of approximately 90 percent relative to pre-2010 levels.

*Response:* The EPA acknowledges the efforts that Asarco has undertaken to reduce SO<sub>2</sub> emissions and improve air quality in the Hayden SO<sub>2</sub> NAA. A summary of the equipment and process upgrades that have been implemented was included in our proposed action,<sup>15</sup> and a more detailed discussion was included in the TSD accompanying our proposed action on Rule B1302.<sup>16</sup>

*Comment:* Asarco asserts that the statement in the EPA's proposal that an error in ADEQ's modeling "changed predicted SO<sub>2</sub> concentrations such that the modeling no longer shows attainment of the 2010 SO<sub>2</sub> NAAQS"<sup>17</sup> is disingenuous because ADEQ's revised modeling demonstration shows attainment of the 2010 SO<sub>2</sub> NAAQS. Asarco believes that the accompanying footnote<sup>18</sup> in the proposed action suggests that the modeling error was discovered in 2020, rather than in 2017, and suggests that the EPA should have acknowledged that ADEQ's revised modeling shows attainment even if the EPA felt compelled to act only on the submitted version of the plan.

*Response:* As discussed in our response to ADEQ's comments in Section II.A of this notice, the EPA does not dispute that the modeling error was discovered in 2017. We referenced the 2020 email<sup>19</sup> in our proposed action because we did not have contemporaneous documentation of the discovery of the modeling error to cite in our proposal. We did not intend

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<sup>15</sup> 85 FR 31118, 31122.

<sup>16</sup> EPA, "Technical Support Document for the EPA's Rulemaking for the Arizona State Implementation Plan; Arizona Administrative Code, Title 18, Chapter 2, Article 13, Part B – Hayden, Arizona, Planning Area, R18-2-B1302 – Limits on SO<sub>2</sub> Emissions from the Hayden Smelter," April 2020 ("Rule B1302 TSD").

<sup>17</sup> 85 FR 31118, 31120.

<sup>18</sup> Id. at footnote 16.

<sup>19</sup> Email dated March 25, 2020, from Farah Esmaeili, ADEQ, to Rynda Kay, EPA Region IX.

for our proposal to suggest that the modeling error was identified in 2020 and acknowledge the extensive work that has been done by ADEQ and Asarco to revise the modeling in the March 2017 SIP revision.

We also note that ADEQ and Asarco have informally sent draft revised modeling to EPA staff, who have provided feedback on the draft revised modeling. However, as previously noted, ADEQ has not yet released the revised modeling for public notice and comment or formally submitted the modeling to the EPA as a SIP revision. Accordingly, the EPA has not yet reviewed the revised modeling for approvability under the applicable requirements of the CAA and EPA regulations.

*Comment:* Asarco asserts that under CAA section 172(c)(6), “other control measures, means or techniques” may be sufficient to achieve and demonstrate attainment of the NAAQS, and therefore, it does not agree that the Hayden SO<sub>2</sub> Plan cannot be approved without numeric fugitive emissions limits. Asarco contends that the EPA improperly relied upon selective citation of the CAA and EPA regulations and non-binding guidance to conclude that a numeric fugitive emissions limit is required. Asarco lists the “other control measures, means or techniques” provided for in the Hayden SO<sub>2</sub> Plan, which it asserts are sufficient “to achieve and demonstrate attainment of the 2010 SO<sub>2</sub> NAAQS,” including new and upgraded capture and control equipment, operation and maintenance plans for process and control equipment, numeric emissions limits on the main stack, a new preheater system to reduce startup emissions, work practice controls for fugitive emissions, and fugitive emissions studies to evaluate the efficacy of the improved gas capture and control equipment.

*Response:* We disagree with this comment. Section 172(c)(6) of the CAA requires attainment plans to include “enforceable emission limitations, and such other control measures,

means or techniques” as necessary or appropriate to provide for attainment. The guidance documents we cited in our proposal (i.e., the General Preamble and the 2014 SO<sub>2</sub> Guidance) describe and interpret CAA section 172(c)(6) and other binding statutory and regulatory requirements. While the guidance documents are not themselves binding, they guide the EPA’s review of SIP submittals for compliance with the relevant requirements. In any case, the text of section 172(c)(6) is clear that the EPA must determine whether a submitted SIP includes all enforceable emission limitations and other measures that are necessary to provide for attainment. While measures other than emission limits might be sufficient by themselves in some circumstances (for example, where a particular source contributes little to the attainment problem or is not susceptible to a numeric limit due to technological limitations), such circumstances do not exist in this case, given that fugitive SO<sub>2</sub> emissions at the Hayden facility have the potential to cause or contribute to NAAQS violations and are capable of being continuously monitored.<sup>20</sup>

The measures listed in Asarco’s comment, while important components of the control strategy, do not ensure that fugitive emissions will remain at the level that was assumed in the attainment modeling. In particular, the installation of new and improved capture and control equipment was expected to reduce fugitive emissions, but, in the absence of ongoing monitoring, it is not known whether these changes were sufficient to reduce emissions to the level necessary to achieve attainment. Similarly, operation and maintenance requirements and work practice controls are helpful for ensuring that process and control equipment are properly operated, but they do not correspond to or assure achievement of any particular level of emissions.

The fugitive emissions studies, the first of which began last year, will provide better

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<sup>20</sup> Letter dated April 29, 2019, from Elizabeth Adams, Air Division Director, EPA Region IX, to Timothy Franquist, Air Director, ADEQ, Subject: “Re: Comments on draft letter regarding R18-2-B1302” (“April 2019 Comment Letter”).

information regarding the actual level of fugitive emissions from the facility. However, these studies will last for only one year each and do not correspond to any numeric emission limit. Therefore, if one of the studies were to show that fugitive emissions exceeded the levels assumed in the attainment modeling, this would not constitute a violation of an emissions limit that could give rise to an enforcement action. Rather, it would simply trigger a requirement for Asarco to conduct new modeling to assess whether the NAAQS would still be attained at the higher emissions levels.<sup>21</sup> If that modeling shows an increased likelihood of a NAAQS exceedance, then Asarco would have to submit to ADEQ a proposed revision to its operations and maintenance plan and associated modeling to demonstrate attainment of the NAAQS. ADEQ would then submit revisions to the operational limits and volumetric flow monitoring provisions, and a revised attainment demonstration to the EPA as a SIP revision.

There is substantial risk that fugitive emissions from the facility could cause or contribute to violations of the 2010 SO<sub>2</sub> NAAQS. Consequently, the Plan must assure that these emissions are limited in an enforceable manner. A process for future evaluation of fugitive emissions and potential future SIP revisions contingent on the results of that evaluation cannot substitute for enforceable limitations on fugitive emissions. Moreover, if fugitive emissions were to increase during the period between the two studies or after the second study, there would be no mechanism to address those increased emissions. In contrast, if the Plan were to rely on enforceable numeric fugitive emissions limits corresponding to the modeled fugitive emissions levels, with ongoing monitoring, recordkeeping and reporting requirements, then an exceedance of any of these emissions levels would be a violation of the SIP that could result in an immediate enforcement action by ADEQ, the EPA, or a third party. Such an approach would satisfy the

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<sup>21</sup> See Arizona Administrative Code R18-2-C1302 Appendix 14 paragraphs A.14.8 and 9.

requirement of CAA section 172(c)(6) for enforceable limits and other measures that provide for attainment of the 2010 SO<sub>2</sub> NAAQS.

Finally, Asarco lists the stack emission limits among the control measures that it believes are sufficient to demonstrate attainment. As discussed in our proposal, the stack emission limits would be enforceable were it not for the flaws in monitoring, recordkeeping and reporting requirements. In any case, the stack limits have no bearing on the SIP's flaw in not imposing an enforceable limit for fugitive SO<sub>2</sub> emissions.

For the foregoing reasons, we conclude that the requirements for enforceable limits and other measures that provide for attainment of the SO<sub>2</sub> NAAQS under CAA section 172(c)(6) have not been satisfied.

*Comment:* Asarco reiterates its view that the EPA's proposal is dismissive of the progress that Asarco has made in reducing total SO<sub>2</sub> emissions at the Hayden smelter, and that it implies that fugitive emissions controls at the smelter are inadequate. Asarco cites emissions reductions observed based on the initial data collected during the first fugitive emissions study to assert that fugitive emissions are well below what is needed to ensure attainment of the 2010 SO<sub>2</sub> NAAQS.

*Response:* The EPA acknowledges the progress that has been made to reduce SO<sub>2</sub> emissions at the Hayden smelter. As discussed in Asarco's comments and in the TSD accompanying our proposed action on Rule B1302, Asarco's SO<sub>2</sub> control strategy includes several equipment and process upgrades, including replacement of the electrostatic precipitator and flash furnace with a new vent gas baghouse system; replacement of five 13-foot diameter converters with new 15-foot diameter units that operate more efficiently; installation of extended secondary and tertiary hooding in the converter aisle to maximize ventilation gas capture during charging, transfer, and tapping operations; and improvements to the acid plant with an upgraded

pre-heater system.<sup>22</sup> ADEQ has estimated that the converter retrofit project would reduce SO<sub>2</sub> emissions from the smelter by 90 percent between 2011 and 2019.

With regards to the adequacy of the fugitive emissions controls, the EPA disagrees that there are sufficient data to conclude that fugitive emissions are below the level needed to ensure attainment. Asarco references emissions reductions based on initial data collected during the first fugitive emissions study, stating that “[u]nder the Plan, fugitive emissions fall from a maximum annual average of 295 pounds/hour to an average range between 4.3 and 39.8 pounds/hour.” However, Asarco has not provided the hourly emissions data from specific roofline sources over an extended period that would be necessary to assess whether the recently monitored levels of fugitive emissions have been consistently at or below the levels necessary for attainment. Moreover, even if recent fugitive emissions have been below the modeled level, there is no assurance that these levels will be maintained over the long-term because, as described in the previous response, the Plan and Rule B1302 do not include any ongoing requirements to measure fugitive emissions or assure that these emissions remain low.

*Comment:* Regarding the EPA’s position that Rule B1302 subsection (E)(4) “provides an option for alternative sampling points that could undermine the enforceability of the stack emission limit by providing undue flexibility to change sampling points without undergoing a SIP revision,”<sup>23</sup> the commenter states that the EPA’s concern is not justified and lacks merit because the provision requires Asarco to demonstrate to ADEQ’s satisfaction that the measurement “would yield inaccurate results or would be technologically infeasible” prior to using an alternative sampling point. Asarco asserts that it would be indefensible for the EPA to require inaccurate results be used to demonstrate attainment. Lastly, Asarco notes that it has

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<sup>22</sup> Rule B1302 TSD, 5.

<sup>23</sup> 85 FR 31118, 31120.

recommended that ADEQ withdraw subsection (E)(4) because Asarco and ADEQ have agreed that the monitoring points are yielding acceptable results so this issue should be resolved upon ADEQ's submittal of a revised plan.

*Response:* The EPA disagrees that this issue lacks merit. The EPA is not suggesting that inaccurate sampling points be required to be used to demonstrate attainment, but rather that any change to sampling points should be the subject of EPA and public review through a SIP revision. As noted in our proposal, one of four basic principles that apply to all SIPs and control strategies is replicability, which means that “where a rule contains procedures for changing the rule, interpreting the rule, or determining compliance with the rule, the procedures are sufficiently specific and non-subjective such that two independent entities applying the procedures would obtain the same result.”<sup>24</sup> We find that the language in Rule B1302 subsection (E)(4) allowing for “measurement of the flow rate at an alternative sampling point” where the measurement in the outlet of the control equipment “would yield inaccurate results or would be technologically infeasible” is too general and subjective to ensure that two independent entities applying this standard would reach the same conclusion. For example, ADEQ might find that measurement of stack gas volumetric flow rate in the outlet of a particular piece of SO<sub>2</sub> control equipment is technologically infeasible in a situation where the EPA might conclude that such measurement is feasible. Moreover, the rule does not specify any procedures or criteria for determining whether measurement at the alternative sampling point would yield accurate and representative results. Therefore, this provision of the rule is inconsistent with the principle of replicability.

As stated in the April 2019 Comment Letter conveying the EPA's comments to ADEQ

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<sup>24</sup> General Preamble, 13568.

regarding Rule B1302, the EPA agrees that withdrawal of subsection (E)(4) is appropriate and will resolve this issue, if such withdrawal occurs.

*Comment:* Asarco objects to the EPA's position that Rule B1302 subsection (E)(6) "allows for nearly 10 percent of total facility SO<sub>2</sub> emissions annually to be exempt from continuous emissions monitoring systems; this deficiency could compromise the enforceability of the main stack emission limit."<sup>25</sup> The commenter asserts that there is no deficiency and the basis for disapproval lacks merit because the provision to allow Asarco to petition ADEQ to replace the continuous emissions monitoring system (CEMS) with annual stack testing and report emissions rates as a pounds per hour (lb/hr) or pounds per ton production factor would still allow calculation of the emissions rates. Asarco states that there were legitimate concerns that it would not be able to perform a relative accuracy test audit (RATA) of the CEMS due to the low concentrations of SO<sub>2</sub> present, but that it has now determined that it can perform a RATA of the relevant CEMS and has requested that ADEQ withdraw subsection (E)(6) in ADEQ's submittal of a revised plan to resolve this issue.

*Response:* The EPA disagrees that this issue lacks merit. While the rule language does provide for an emissions value that can allow for the calculation of an overall stack emissions rate, we do not consider this sufficient to ensure the enforceability of the one-hour main stack emissions limit given the large variability in hourly emissions from the Asarco facility. The commenter asserts that units encompassed by the provision typically emit less than 75 lb/hr SO<sub>2</sub>; however, we note that Asarco's emissions estimate for these units forecasts a maximum emission rate as high as 417 lb/hr SO<sub>2</sub> (out of a total 1069.1 lb/hr or 1518 lb/hr main stack limit).<sup>26</sup> In addition, we note that source test results represent a "snapshot" of unit emissions (and of

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<sup>25</sup> 85 FR 31118, 31120.

<sup>26</sup> See B-1j\_Forecast\_Emissions\_20160927.xlsx in the rulemaking docket for this action.

corresponding unit operations) at the time of the source test. Generally, source tests must be performed at approximately 80 to 100 percent of maximum operating levels, and emissions limits relying upon a source test for demonstrating compliance typically require continuous monitoring of one or more parameters of unit operation. This allows for the determination that unit operations are representative of source test conditions and ensures the validity of the source test result. Rule B1302 subsection (E)(6), however, relies solely on source test results for demonstrating compliance, which we do not consider sufficient to ensure enforceability of the main stack emissions limit. As stated in our April 2019 Comment Letter, the EPA agrees that withdrawal of subsection (E)(6) is appropriate and will resolve this issue, if such withdrawal occurs.

*Comment:* Asarco objects to the EPA's position that Rule B1302 "lacks a method for measuring or calculating emissions from a shutdown ventilation flue; this omission could compromise the enforceability of the main stack emission limit."<sup>27</sup> Asarco asserts that the concern is unfounded and lacks merit. Asarco explains the purpose of the shutdown ventilation flue and describes the procedure for calculating emissions for planned and unplanned shutdowns. Asarco notes that the procedure and resulting values are included in the SIP documentation but that to resolve the issue, it has requested that ADEQ revise the operation and maintenance plan requirements in the SIP to document the SO<sub>2</sub> emitted during planned and unplanned use of the shutdown ventilation flue and require the use of the operation and maintenance plan value in compliance calculations.

*Response:* The EPA disagrees that the concern is unfounded and lacks merit. While the procedure for calculating emissions for planned and unplanned shutdowns and the value are

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<sup>27</sup> 85 FR 31118, 31120.

included in supporting documentation for the Plan, they are not included in Rule B1302 or elsewhere in the SIP; therefore, they are not currently enforceable.

*Comment:* Regarding the EPA’s position that Rule B1302 “lacks a method for calculating hourly SO<sub>2</sub> emissions,”<sup>28</sup> Asarco asserts that the calculation method is presented in subsections (F)(1) and (F)(2) and acknowledges that there was a typographical omission of the “valid hour” definition that was included in Arizona’s submission. Asarco notes that it has submitted to ADEQ the same definition included in the EPA-approved plan for the 2010 SO<sub>2</sub> NAAQS for the Miami, Arizona area and that Asarco has requested that ADEQ include it in a revised submittal to resolve the issue.

*Response:* The omission of the “valid hour” definition leads to ambiguity in how hourly emissions are calculated, thus undermining enforceability. However, the EPA agrees that inclusion of a “valid hour” definition will clarify the method for calculating hourly SO<sub>2</sub> emissions for the Hayden facility and will resolve this issue, if submitted to the EPA in a future SIP revision.

*Comment:* The commenter states that Asarco is disappointed that the EPA has not evaluated a fundamental part of the Hayden SO<sub>2</sub> control strategy – i.e., the “dual limit.” Asarco discusses its rationale for the dual limit, states that there is no basis for the EPA to question it, and states that it is presumptively approvable under the EPA’s SO<sub>2</sub> Guidance.

*Response:* As noted in our proposal on Rule B1302, we are approving the main stack emission limit because it is more stringent than the existing requirements in state law, as well as new operational standards and monitoring, recordkeeping, and reporting requirements for the smelter.<sup>29</sup> However, as noted in our proposed action on the Hayden SO<sub>2</sub> Plan, we are not

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<sup>28</sup> Id.

<sup>29</sup> 85 FR 31113, 31115.

evaluating its adequacy to ensure attainment of the 2010 SO<sub>2</sub> NAAQS because (1) ADEQ has not demonstrated that the emission limits in Rule B1302 are sufficient to provide for attainment, and (2) the stack emission limit is not fully enforceable due to various deficiencies in Rule B1302.<sup>30</sup>

*Comment:* Asarco states that it disagrees with the EPA's conclusion that the modeling in the Hayden SO<sub>2</sub> Plan is flawed. It notes that the revised modeling that was informally submitted to EPA staff indicates that the Converter Retrofit Project meets the RACM/RACT requirements and that Asarco's understands that the revised modeling will be submitted to the EPA as a SIP revision.

*Response:* As discussed above, the EPA has not reviewed the revised modeling because, as Asarco acknowledges, it has not been formally submitted to the EPA as a SIP revision. The EPA's proposal to disapprove the RACM/RACT demonstration is based on the modeling that was submitted as part of the March 2017 SIP submittal. Both ADEQ and Asarco acknowledge the error in the modeling in the March 2017 submittal. The EPA will review any revised modeling upon formal submission of such modeling to the EPA as a SIP revision.

*Comment:* Asarco states that ADEQ intends to submit a SIP revision that includes updated modeling that shows attainment; removal of Rule B1302, Section (E)(4); removal of Rule B1302, Section (E)(6); a provision in the operation and maintenance plan to demonstrate the quantity of SO<sub>2</sub> present during planned and unplanned use of the shutdown ventilation flue; and a "valid hour" definition that is the same as the definition in the approved Miami SO<sub>2</sub> SIP. Asarco reiterates its position that the CAA does not require the Hayden SO<sub>2</sub> SIP to include numeric fugitive emissions limits but notes that it is working with ADEQ to establish workable

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<sup>30</sup> 85 FR 31118, 31120.

emissions limits and monitoring provisions for demonstrating compliance with such limits.

Asarco also states that the submission of the SIP revision is imminent and recommends that the EPA prioritize action on the pending revised submittal rather than development of a new plan.

*Response:* As discussed above, the EPA disagrees with the commenter's assertion that the CAA does not require enforceable emissions limitations for fugitive emissions. Section 172(c)(6) of the Act requires attainment plans to include "enforceable emission limitations, and such other control measures, means or techniques" as necessary and appropriate to provide for attainment. With regards to the SIP revision that ADEQ and Asarco have been working on, the EPA will review the submittal for approvability under the applicable requirements of the CAA and EPA regulations once it has undergone ADEQ public notice and comment and been formally submitted to the EPA. While the EPA looks forward to reviewing the prospective submittal, the EPA must also fulfill its obligation under section 110(k) of the CAA to act on ADEQ's 2017 submittal.

### **III. The EPA's Final Action**

For the reasons discussed in our proposed action and above, the EPA is finalizing our partial approval and partial disapproval of the Hayden SO<sub>2</sub> Plan. The EPA is approving the emissions inventory element under CAA section 172(c)(3) and (4) and affirming that the State has met the new source review requirements for the Hayden SO<sub>2</sub> NAA under section 172(c)(5). We are disapproving the attainment demonstration, RACM/RACT, enforceable emission limitations, RFP, and contingency measure elements because they do not meet the requirements of the CAA for the 2010 SO<sub>2</sub> NAAQS. As a result of this final partial disapproval, the offset sanction in CAA section 179(b)(2) will be imposed 18 months after the effective date this action, and the highway funding sanction in CAA section 179(b)(1) six months after the offset sanction

is imposed. A sanction will not be imposed if the EPA determines that a subsequent SIP submission corrects the identified deficiencies before the applicable deadline.

#### **IV. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <http://www.epa.gov/laws-regulations/laws-and-executive-orders>.

##### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

##### *B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs*

This action is not an Executive Order 13771 regulatory action because SIP approvals, including limited approvals, are exempted under Executive Order 12866.

##### *C. Paperwork Reduction Act (PRA)*

This action does not impose an information collection burden under the PRA because this action does not impose additional requirements beyond those imposed by state law.

##### *D. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities beyond those imposed by state law.

##### *E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action does not impose additional requirements beyond those imposed by state law. Accordingly, no

additional costs to state, local, or tribal governments, or to the private sector, will result from this action.

*F. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

*G. Executive Order 13175: Coordination with Indian Tribal Governments*

This action does not have tribal implications, as specified in Executive Order 13175, because 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, and will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

*H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not impose additional requirements beyond those imposed by state law.

*I. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*J. National Technology Transfer and Advancement Act (NTTAA)*

Section 12(d) of the NTTAA directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The EPA believes that this action is not subject to the requirements of section 12(d) of the NTTAA because application of those requirements would be inconsistent with the CAA.

*K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

The EPA lacks the discretionary authority to address environmental justice in this rulemaking.

*L. Congressional Review Act (CRA)*

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

*M. Petitions for Judicial Review*

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[INSERT DATE 60 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see CAA section 307(b)(2)).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental

relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Volatile organic compounds.

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

Dated: October 10, 2020.

John Busterud,  
Regional Administrator,  
Region IX.

Part 52, Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

**PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

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

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

**Subpart D—Arizona**

2. In 52.120(e), amend Table 1 under the heading “Part D Elements and Plans (Other than for the Metropolitan Phoenix and Tucson Areas)” by adding an entry for “Arizona State Implementation Plan Revision: Hayden Sulfur Dioxide Nonattainment Area for the 2010 SO<sub>2</sub> NAAQS” after the entry for “SIP Revision: Hayden Lead Nonattainment Area, excluding Appendix C.”

**§52.120 Identification of plan.**

\* \* \* \* \*

(e) \* \* \*

**TABLE 1—EPA-APPROVED NON-REGULATORY AND QUASI-REGULATORY MEASURES**

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

Name of SIP provision	Applicable geographic or nonattainment area or title/subject	State submittal date	EPA approval date	Explanation
*****				
<b>Part D Elements and Plans (Other than for the Metropolitan Phoenix or Tucson Areas)</b>				
*****				
Arizona State Implementation Plan Revision: Hayden Sulfur Dioxide Nonattainment Area for the 2010 SO <sub>2</sub> NAAQS, Chapter 3, Chapter 8,	Hayden, AZ Sulfur Dioxide Nonattainment Area.	March 9, 2017	<b>[INSERT FEDERAL REGISTER CITATION], [INSERT DATE OF PUBLICATION]</b>	Adopted by the Arizona Department of Environmental Quality and submitted to the EPA as an attachment to letter dated March 8, 2017. The EPA

Appendix A, and Appendix B.				approved the emissions inventory element and affirmed that the State had met the new source review requirements for the area. The EPA disapproved the attainment demonstration, RACM/RACT, enforceable emission limitations, RFP, and contingency measure elements.
*****				

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

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3. Section 52.124 is amended by revising paragraph (c) to read as follows:

§ 52.124 Part D disapproval.

\* \* \* \* \*

(c) The following portions of the “Arizona State Implementation Plan Revision: Hayden Sulfur Dioxide Nonattainment Area for the 2010 SO<sub>2</sub> NAAQS” are disapproved because they do not meet the requirements of Part D of the Clean Air Act:

- (1) Attainment demonstration,
- (2) Reasonably available control measures/reasonably available control technology,
- (3) Enforceable emission limitations,
- (4) Reasonable further progress, and
- (5) Contingency measures.

[FR Doc. 2020-23030 Filed: 11/9/2020 8:45 am; Publication Date: 11/10/2020]