6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R08-OAR-2019-0340; FRL-9996-64-Region 8]

Designation of Areas for Air Quality Planning Purposes; Montana; Redesignation Request and Associated Maintenance Plan for East Helena SO_2 Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: On October 26, 2018, the Montana Department of Environmental Quality (MDEQ) submitted a request to the EPA for redesignation of the East Helena, Montana 1971 sulfur dioxide (SO_2) National Ambient Air Quality Standards (NAAQS) nonattainment area (NAA) to attainment, and to approve a State Implementation Plan (SIP) revision for a maintenance plan of the East Helena area. After review and analysis of Montana's submittal, the EPA is proposing to redesignate the East Helena, Montana SO_2 nonattainment area to attainment for the 1971 primary 24-hour and annual, and secondary 3-hour SO_2 NAAQS, and to approve Montana's SIP revision for continued maintenance and attainment of the 1971 primary 24-hour and annual, and secondary 3-hour SO_2 NAAQS in East Helena, Montana.

DATES: Written 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-R08-OAR-2019-0340, to the Federal Rulemaking Portal: https://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from www.regulations.gov. The EPA may publish any comment received to its public docket.

Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Air and Radiation Division, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado 80202-1129. The EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding federal holidays.

FOR FURTHER INFORMATION CONTACT: Adam Clark, (303) 312-7104, clark.adam@epa.gov, or Clayton Bean, (303) 312-6143, bean.clayton@epa.gov, Air and Radiation Division, U.S. EPA, Region 8, Mail-code 8ARD-QP, 1595 Wynkoop Street, Denver, Colorado, 80202-1129.

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

I. Background for the EPA's proposed actions

A. The 1971 SO_2 NAAQS

In 1971, the EPA promulgated new primary and secondary NAAQS for SO_2.[1] The primary standard addressed 24-hour and annual average ambient SO_2 concentrations. The secondary standard addressed 3-hour and annual average ambient SO_2 concentrations. In 1973, the EPA revoked the secondary annual average standard.[2] Thus, the 1971 SO_2 NAAQS is comprised of a primary 24-hour standard of 0.14 parts per million (ppm) not to be exceeded more than once per year, a primary annual average standard of 0.03 ppm, and a secondary 3-hour standard of 0.5 ppm not to be exceeded more than once per year.[3]

On June 2, 2010, the EPA revised the primary SO_2 NAAQS, thus establishing a new 1-hour SO_2 standard of 75 parts per billion (ppb). Although the 1971 primary SO_2 NAAQS have been revised to the 2010 1-hour SO_2 NAAQS, today's proposed action only addresses the 1971 SO_2 NAAQS for the East Helena NAA. The EPA notes that all of Lewis and Clark County, Montana, including the East Helena SO_2 NAA, is designated as "attainment/unclassifiable" under the 2010 SO_2 NAAQS.[4]

B. Nonattainment Designation and Development of the East Helena SO_2 Attainment SIP

The American Smelting and Refining Company (ASARCO) lead smelter began operating in 1888 in the city of East Helena, Montana. ASARCO has been the cause of SO_2 violations

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[1] 36 FR 8186, April 30, 1971.
[2] 38 FR 25678, September 14, 1973.
[3] Table of historical SO_2 NAAQS. *See* https://www3.epa.gov/ttn/naaqs/standards/so2/s_so2_history.html.
[4] *See* 40 CFR section 81.327. *See also* the EPA's "Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard—Round 3," 83 FR 1098, January 9, 2018.

throughout the history of the East Helena area,[5] as will be described further below, and was permanently shut down in 2001.

On September 19, 1975 the EPA approved a revision to the Montana SIP for SO_2 control strategies providing for attainment and maintenance of the 1971 SO_2 NAAQS near the ASARCO lead smelter in East Helena. SIP-approved emission limitations for SO_2 at the ASARCO smelter were limited to 80 tons per day (tpd) and 20 tons per six hours.[6]

Section 107(d) of the 1977 CAA Amendments gave the EPA authority to designate areas as nonattainment without a state's request.[7] On March 3, 1978 the EPA designated the "East Helena Area"[8] as nonattainment for the primary and secondary SO_2 NAAQS.[9] The East Helena SO_2 NAA is demarcated by a circle centered on the previously existing ASARCO sinter storage building[10] with a radius of 0.67 km (0.43 miles).

On November 20, 1980 the EPA conditionally approved a SIP revision for the East Helena SO_2 NAA. This SIP revision identified the continued SO_2 violations as being caused by low-level downwash emissions from the three 110-foot stacks serving the smelter's blast furnace operations. The control strategy identified in the SIP revision included replacing the three 110-foot stacks with a single 425-foot stack and setting new emission limits on the 425-foot stack.[11] The EPA's action was conditioned upon adequate demonstration of good engineering practice (GEP) stack height for the new blast furnace stack, and revised dispersion modeling if GEP

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[5] 60 FR 5313, January 27, 1995.
[6] 40 FR 43216, September 19, 1975.
[7] After the EPA's initial designation of areas as attainment/unclassifiable or nonattainment in 1978, however, subsequent designations could be made only at a State's request. In that same year, the EPA published, for the first time, a list of all section 107(d) nonattainment areas in 40 CFR part 81, which included East Helena.
[8] Generally, where the EPA promulgated a designation for SO_2 the minimum area was to be the county in which the violating monitoring site was located. If states had monitoring data to substantiate the size of areas they designated, they would be acceptable by the EPA regardless of size. *See* 43 FR 8962, March 3, 1978.
[9] 43 FR 8962, March 3, 1978.
[10] NAD27 UTM Zone 12, 429484 mE, 5158997 mN.
[11] 45 FR 76685, November 20, 1980.

height was determined to be below 375 feet. ASARCO completed a field tracer study demonstration in 1982, and subsequently proceeded to complete construction of its new stack based on the study results justifying a stack height of 375 feet as necessary to overcome the effects of downwash, which had been identified as the cause of monitored ambient SO_2 violations near the smelter site.[12] On July 5, 1983 the EPA proposed to approve[13] the SIP and GEP demonstration as satisfying the conditional approval requirements, yet pending litigation[14] over federal stack height regulations postponed final EPA action until years later.

The CAA Amendments of 1990 reaffirmed the nonattainment designation of East Helena with respect to the primary and secondary SO_2 NAAQS under section 107(d).[15] Pursuant to the CAA Amendments of 1990, any state that lacked a fully-approved SIP complying with the requirements of the Act for an area designated as nonattainment with respect to the primary SO_2 NAAQS, was to resubmit a SIP fully meeting the requirements of the CAA by May 15, 1992. For the secondary SO_2 NAAQS SIP for East Helena, the EPA established November 15, 1993 as the submittal due date.[16]

Given that the East Helena primary SO_2 SIP was not submitted by May 15, 1992, the EPA made a finding of failure to submit, pursuant to section 179 of the Act, and notified the Governor in a findings letter dated June 16, 1992.[17] The date of the findings letter started the mandatory 18-month sanction clock and established a two-year deadline by which the EPA was required to promulgate a federal implementation plan ("FIP").

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[12] 60 FR 5313, January 27, 1995.
[13] 48 FR 30696 July, 5, 1983.
[14] Sierra Club v. Environmental Protection Agency, 719 F.2d 436 (D.C. Cir. 1983).
[15] *See* 56 FR 56694, November 6, 1991, "Designation of Areas for Air Quality Planning Purposes" at 56706.
[16] The Act did not explicitly specify a deadline for the secondary SO_2 NAAQS, however, section 172(b) provides that the Administrator shall establish a schedule for plan submissions, but that such submissions shall not extend longer than three years from the date of nonattainment designation.
[17] 57 FR 48614, October 27, 1992.

In our October 7, 1993 "Deadline for SIP Submittal" action (58 FR 52237) the EPA recognized that for the ASARCO smelter, the primary and secondary SO_2 NAAQS do not require the same level of controls. Modeling results indicated an additional 35 percent reduction in emissions was needed (beyond those reductions to achieve the primary SO_2 NAAQS) in order to comply with the secondary SO_2 NAAQS.[18] We therefore concluded that attainment of the secondary SO_2 NAAQS will require significant emission reductions, beyond what was required for attainment of the primary SO_2 NAAQS.

After the East Helena primary SO_2 Attainment SIP was submitted by the State on March 30, 1994, the EPA found the submittal complete pursuant to section 110(k)(1) of the Act and notified the Governor accordingly in a letter dated May 12, 1994. This completeness determination corrected the State's deficiency and, therefore, terminated the 18-month sanctions clock for the primary SO_2 SIP under section 179 of the Act.[19]

On January 27, 1995 the EPA fully approved the East Helena primary SO_2 Attainment SIP for the East Helena NAA. The EPA noted in that approval action that Montana's SIP revision only addressed the 24-hour and annual primary SO_2 NAAQS, and did not address the 3-hour secondary SO_2 NAAQS.[20] The modeling conducted by the State to demonstrate attainment of the 1971 primary NAAQS by the applicable attainment deadline of November 15, 1995, which the EPA approved in our January 27, 1995 final rulemaking, will be discussed further in Section III.A. of today's proposed rulemaking action.

As the State of Montana failed to submit the East Helena secondary SO_2 Attainment SIP by November 15, 1993, the EPA acted pursuant to the non-discretionary requirement of section

[18] 58 FR 52237, October 7, 1993.
[19] 60 FR 5313, January 27, 1995.
[20] *Ibid*.

179 of the Act by notifying the Governor in a findings letter dated January 19, 1994, of the State's failure to submit the SO_2 SIP secondary standard.[21] In the letter, the EPA also notified Montana of sanctions available to the EPA under section 110(m) that could be imposed, including highway funding sanctions, 2:1 emission offsets, and promulgation of a FIP under section 179(a). The date of the findings letter started the mandatory 18-month sanction and the two-year FIP clocks. The sanction clock expired due to inaction by the State on July 19, 1995, and the FIP clock expired on January 19, 1996. The EPA did not promulgate a FIP upon expiration of the FIP clock. As the sanction clocks were never stayed or deferred, emissions offsets and highway sanctions were imposed by operation of law and have remained in place to date.[22]

The State of Montana indicated that they were in the process of revising the 3-hour secondary SO_2 SIP for East Helena when ASARCO shut down operations on April 4, 2001.[23] Initially, the ASARCO shutdown was to be a suspension of operations for an indeterminate amount of time. Accordingly, ASARCO did not request revocation of their Title V operating permit, nor their Montana Air Quality Permit (MAQP #2557-12). ASARCO's indeterminate suspension of operations later officially became a permanent shutdown, and the State of Montana never resumed work on the required secondary SO_2 SIP. Therefore, the 3-hour secondary SO_2 SIP revision for East Helena was never submitted to the EPA, causing the aforementioned sanctions to remain in place. On April 4, 2007, ASARCO's Title V permit (#OP2557-04)

[21] This letter is available in the docket for this action.
[22] *See* https://www.fhwa.dot.gov/environment/air_quality/highway_sanctions/sanctionsclock.cfm for the status of sanction clocks under the CAA, including East Helena's status.
[23] *See* "East Helena SO_2 Redesignation Request", October 26, 2018, at 5.

expired without renewal, and on January 5, 2010, MAQP #2557-12 was formally revoked by the State of Montana.[24]

On November 25, 2002 the EPA made a technical correction to the East Helena SO_2 SIP pursuant to our authority under 110(k)(6) of the CAA. (67 FR 70554). Specifically, we clarified that in our January 27, 1995 approval of the East Helena primary SO_2 Attainment SIP (60 FR 5313), we failed to indicate that this approval superseded our approval of the East Helena SO_2 Attainment SIP on September 19, 1975 and terminated the East Helena SO_2 Attainment SIP approved on May 1, 1984. The November 25, 2002 action corrected these errors.

On October 26, 2018, the State of Montana submitted to the EPA a request for redesignation of the East Helena SO_2 NAA to attainment for the 1971 primary and secondary NAAQS (hereafter "East Helena SO_2 Redesignation Request"), and a SIP revision containing a maintenance plan for the East Helena attainment area (hereafter "East Helena SO_2 Maintenance Plan").[25] The details of Montana's East Helena SO_2 Redesignation Request and Maintenance Plan are discussed in greater detail below.

C. Additional History of the East Helena SO_2 Nonattainment Area

Between 1969 and 1983, concerns of contamination in the East Helena area led to investigations by the EPA and the State of Montana. High metal levels were found in air, soil, surface water, and dust in and around East Helena. In 1984, the EPA listed the 140-acre ASARCO smelter site and about 2,000 additional acres of surrounding land[26] on the Superfund

[24] The request to revoke MAQP (#2557-12), and MDEQ's letter in response confirming revocation, can be found in Appendix A of Montana's October 26, 2018 "Request for Redesignation of East Helena SO_2 Nonattainment Area."
[25] The submissions are collectively referred to as the "East Helena SO_2 Redesignation Request and Maintenance Plan."
[26] The East Helena Superfund site encompasses and extends beyond the exterior boundary of the East Helena SO_2 NAA.

program's National Priorities List (NPL).[27] In 1998, the United States Department of Justice issued a Consent Decree requiring ASARCO to resolve major environmental compliance issues under the Resource Conservation and Recovery Act (RCRA). ASARCO began dismantling the smelter site following the 2001 shutdown. ASARCO filed for bankruptcy in 2005, and on June 5, 2009, the Bankruptcy Court approved the Consent Decree and a Settlement Agreement.[28] In part, the settlement agreement transferred the East Helena ASARCO properties and administration thereof to the appointed Custodial Trustee, the Montana Environmental Trust Group (METG), who assumed responsibility of corrective action cleanup under oversight of the EPA. The three remaining smelter stacks were felled in a controlled demolition on August 4, 2009.[29] Later, in December 2009, the smelter site was officially transferred from ASARCO to the METG.[30]

As of mid-2019 all that remains of the former ASARCO smelter site is a 65-acre slag pile, and 65-acres of contaminated land that has been capped with an evapotranspiration cover. Restorative actions have allowed open meadows, grasslands, and wetlands to flourish on the former site; and one and a half miles of the Prickly Pear Creek has been successfully restored.[31] The site is privately held by METG, and public access is restricted. In the future, deed restrictions will be placed on the property that will prevent another facility from being constructed on the cap.

II. CAA Requirements for Redesignation Requests and Maintenance Plans

A. Statutory Provisions

[27] "Fourth Five-Year Review Report for the East Helena Superfund Site," September 2016. *See* https://semspub.epa.gov/work/08/1768518.pdf. This document is also available in the docket for this action.
[28] *Ibid*.
[29] *See* https://missoulian.com/news/state-and-regional/asarco-smokestacks-in-east-helena-toppled-in-early-morning-demolition/article_a86273aa-88e1-11de-9466-001cc4c03286.html.
[30] "Fourth Five-Year Review Report for the East Helena Superfund Site," September 2016. *See* https://semspub.epa.gov/work/08/1768518.pdf. This document is also available in the docket for this action.
[31] *See* https://www.mtenvironmentaltrust.org/east-helena/photo-galleries/east-helena-site-videos/.

The CAA provides the requirements for redesignating a nonattainment area to attainment. Specifically, section 107(d)(3)(E) of the CAA allows for redesignation of a nonattainment area provided that: (1) The Administrator determines that the area has attained the applicable NAAQS; (2) the Administrator has fully approved the applicable implementation plan for the area under section 110(k); (3) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable SIP and applicable federal air pollutant control regulations and other permanent and enforceable reductions; (4) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A; and (5) the state containing such area has met all requirements applicable to the area for purposes of redesignation under section 110 and part D of title I of the CAA.

CAA section 175A provides the general framework for maintenance plans. The maintenance plan must provide for maintenance of the NAAQS for at least 10 years after redesignation, including any additional control measures as may be necessary to ensure such maintenance. In addition, maintenance plans are to contain such contingency provisions as we deem necessary to assure the prompt correction of a violation of the NAAQS that occurs after redesignation. The contingency measures must include, at a minimum, a requirement that the state will implement all control measures contained in the nonattainment SIP prior to redesignation. Beyond these provisions, however, CAA section 175A does not define the content of a maintenance plan.

B. EPA Guidance Applicable to the East Helena SO_2 Redesignation Request and Maintenance Plan

On April 16, 1992, the EPA provided guidance on redesignation in the General Preamble for the Implementation of title I of the CAA Amendments of 1990 (57 FR 13498) and supplemented this guidance on April 28, 1992 (57 FR 18070). The EPA has provided further guidance on processing redesignation requests in several guidance documents. Our primary guidance on maintenance plans and redesignation requests is a September 4, 1992 memo from John Calcagni, entitled "Procedures for Processing Requests to Redesignate Areas to Attainment" (hereafter referred to as the "Calcagni Memo"). Specific guidance on SO_2 redesignations also appears in a January 26, 1995 memo from Sally L. Shaver, entitled "Attainment Determination Policy for Sulfur Dioxide Nonattainment Areas" (hereafter referred to as the "Shaver Memo"). The recommendations for addressing the redesignation request requirements of CAA section 107(d)(3)(E) and the maintenance plan requirements of 175A provided in these guidance documents will be referenced throughout the forthcoming sections. Guidance specific to areas lacking ambient monitoring data, and whose historic violations were caused by a major point source that is no longer in operation, is found in an October 18, 2000 memo from John S. Seitz entitled "Redesignation of Sulfur Dioxide Nonattainment Areas in the Absence of Monitored Data" (hereafter referred to as the "Seitz Memo"). The Seitz Memo exempts eligible areas from the maintenance plan requirements of continued monitoring. The Seitz Memo also describes how attainment and continued maintenance should be demonstrated in such areas and how sources currently shut down should be treated if they resume operation. The EPA finds that the East Helena SO_2 NAA is an appropriate area for application of the guidance laid out in the Seitz Memo. Therefore, as will be discussed further in the EPA's review of the State's 175A maintenance plan (Section III.B.), the EPA is proposing to find that the East Helena maintenance area should not require ambient monitoring to verify continued attainment.

III. EPA's Evaluation of the East Helena SO_2 Redesignation Request and Maintenance Plan

A. EPA Review of CAA Section 107(d)(3)(E) Requirements

The EPA's evaluation of the East Helena SO_2 Redesignation Request was based on consideration of the five redesignation criteria provided under CAA section 107(d)(3)(E). We analyze each of these criteria individually, below. Based on this analysis, we propose to find that the State of Montana has met the redesignation criteria of CAA section 107(d)(3)(E).

1. Criteria (1) Determination that the East Helena Area Has Attained the 1971 SO_2 NAAQS

   a. Review of Ambient Monitoring and Emissions Data

In the East Helena SO_2 Redesignation Request, the State primarily relied on historic SO_2 ambient data which indicated attainment of the 1971 primary and secondary NAAQS for the 15 years preceding the ASARCO facility shutdown in 2001. Ambient SO_2 monitoring began in the East Helena area as early as 1968. An enhanced ambient SO_2 monitoring network was established in 1993. This was the result of extensive efforts between ASARCO and the State of Montana (in coordination with the EPA) to identify maximum pollutant impact areas using tracing studies, monitored atmospheric dispersion parameters, dispersion modeling, and ambient SO_2 concentrations.[32] The ambient SO_2 monitoring network for the East Helena area was discontinued on May 31, 2001 following the ASARCO shutdown.

After reviewing the East Helena SO_2 Redesignation Request and the historic ambient SO_2 monitoring data, the EPA concludes that the monitoring data were collected, and quality assured in accordance with EPA guidelines.[33] Table 1 below shows for all of the 1971 SO_2 NAAQS the

[32] "Primary SO_2 NAAQS SIP Revision for East Helena, Montana, Technical Support Document, October 4, 1994," at pages 13-15.
[33] Calcagni Memo at 2.

highest monitored SO_2 value in the East Helena area annually from 1987 to 2001 throughout the enhanced monitoring network.[34].

Table 1: Ambient SO_2 Monitoring in East Helena, 1987-2001

Year	Max 3-Hour Value (500 PPM Secondary NAAQS)	Monitor	Max 24-Hour Block Average (140 PPB Primary NAAQS)	Monitor	Max Annual Average (30 PPB Annual Primary NAAQS)	Monitor
1987	380	Water Tank	114.6	Water Tank	14.88	Microwave
1988	446.6	Water Tank	107.1	Water Tank	9.35	Water Tank
1989	396.6	Water Tank	120	Water Tank	6.28	Water Tank
1990	443.4	Water Tank	67.1	Water Tank	6.95	Water Tank
1991	406.6	Water Tank	57.5	Water Tank	5.01	Kennedy Park
1992	279*	Kennedy Park	123*	Kennedy Park	12.93*	Kennedy Park
1993	201.6*	Water Tank	54.3*	Water Tank	5.35*	Kennedy Park
1994	230.6	Water Tank	78.2	McClellan Rd #6	10.41	Kennedy Park
1995	356	Microwave	112.7	McClellan Rd #6	10.76	Microwave
1996	223.3	McClellan Rd #6	56	McClellan Rd #6	9.24	McClellan Rd #4
1997	166	McClellan Rd #6	62.7	McClellan Rd #6	5.64	Water Tank
1998	199	Water Tank	42.7	Water Tank	5.33	Kennedy Park
1999	151	Water Tank	46.6	McClellan Rd #6	5.23	Kennedy Park

[34] From 1986 to 1992 six SO_2 monitoring sites operated. One site was removed June 1992. In 1993, the enhanced monitoring network added eight additional SO_2 sites. In 1997, eight SO_2 sites were removed from the network, thereby leaving five (Microwave, McClellan Creek Road #4, McClellan Creek Road #6, Water Tank, Kennedy Park) SO_2 monitoring sites in the East Helena area. These five remaining sites, together making up the "enhanced monitoring network," were located in areas of historic violations and modeled maximum pollutant impact areas.

2000	188.3	McClellan Rd #6	62	McClellan Rd #6	8.61	Kennedy Park
2001	196.6*	McClellan Rd #6	91.2*	McClellan Rd #6	5.71*	McClellan Rd #6

*Indicates site did not have at least 75% data completeness for all 4 quarters this year[35]

As Table 1 shows, there were no monitored violations of any of the 1971 SO_2 NAAQS from 1987 until the ASARCO shutdown in 2001 at which time monitoring was discontinued. For the purposes of determining whether an area has attained the SO_2 NAAQS predicated upon monitoring data, the EPA requires no fewer than two consecutive years of clean data (*i.e.*, eight quarters with no observed violations) as recorded in EPA's Air Quality System (AQS).[36] In addition, to qualify for attainment determination purposes, the annual average and second-highest 24-hour average concentrations must be based upon hourly data that are at least 75 percent complete in each calendar quarter.[37]

The East Helena NAA has recorded more than eight consecutive quarters of quality-assured monitoring data that is free of NAAQS violations while ASARCO operated. Specifically, the three enhanced network monitors (Microwave, Water Tank, Kennedy Park) operating in the period between 1987 and 1992 each showed five consecutive years (or 20 consecutive quarters) of complete, quality-assured attaining monitoring data from 1987 to 1991. As shown, the East Helena enhanced SO_2 monitoring network experienced data completeness issues in 1992 and 1993. Complete data are available for every year from 1994 to 2000 for all five enhanced network monitors (the aforementioned and the McClellan Road #4 and McClellan Road #6 monitors, both added as part of the enhanced network in 1993), which show seven

[35] The data collected in 2001 did not meet data completeness owing to the ASARCO facility shutdown in April 2001, after which the monitoring network was discontinued in June 2001.
[36] *See* EPA Memo "Section 107 Questions and Answers," G.T. Helms, December 23, 1983, in the docket for this action.
[37] 40 CFR 50.4.

consecutive years (or 28 consecutive quarters) of complete, quality-assured attaining monitoring data from 1994-2000. Further, from 1996 until 2001 (between the period of time from EPA's approval of the 1995 East Helena primary SO_2 Attainment SIP until ASARCO's shutdown), none of the East Helena area ambient SO_2 monitors recorded a maximum value equivalent to or above 50% of a primary or secondary 1971 SO_2 NAAQS. This decrease in monitored emissions is in alignment with emissions data, as the average annual SO_2 emissions from ASARCO dropped from 14,792 tons per year (tpy) from 1990-1995, to 10,000 tpy from 1996-2000.[38] These data indicate that the East Helena area was attaining the NAAQS before the ASARCO closure.

In the East Helena SO_2 Redesignation Request, the State also measured these monitor data alongside the emissions from the two SO_2 emitting sources in or near the East Helena NAA.[39] The State asserted that these emissions data, presented in Table 2, below, indicate that the attaining SO_2 monitor values were driven almost entirely by SO_2 emissions from ASARCO, and that it is therefore reasonable to conclude that the monitored concentrations would have decreased substantially (and thus continued attaining the NAAQS) following the ASARCO shutdown.

Table 2. Emissions Data for SO_2 sources[40] in and near the East Helena SO_2 NAA

Year	ASARCO Emissions	Ash Grove Emissions	Percentage of Total Emissions from ASARCO
1996	10,181.97	102.88	99.0
1997	10,246.02	96.78	99.1
1998	9,797.69	95.7	99.0
1999	9,819.84	240.89	97.6

[38] *See* East Helena SO_2 Redesignation Request and Maintenance Plan, at 8.
[39] The EPA is not including emissions from the American Chemet facility, which is located within the East Helena SO_2 NAA, because this facility has not emitted a ton of SO_2 in any single year since 1990.
[40] *Ibid*.

2000	9,957.31	229.23	97.7

As shown in Table 2, the Ash Grove Cement plant ("Ash Grove") contributed less than 2.5% of total emissions in or near the East Helena NAA area in each of the final five years of complete ambient SO_2 monitoring. Ash Grove is located outside the geographic boundary of the East Helena SO_2 NAA, at a distance of 3 km to the south of the NAA's southern boundary and remains in operation. Ash Grove's allowable SO_2 emissions are limited to 386 tpy by its MAQP #2005-13 and Title V operating permit #OP2005-09.[41] Based on the emissions data provided above, and consistent with our past conclusions regarding the East Helena NAA,[42] the EPA proposes to concur with MDEQ's assertion that ASARCO emitted nearly all of the SO_2 in the East Helena area prior to its 2001 shutdown, and to concur with the State that monitored SO_2 concentrations in the area would have decreased substantially following the ASARCO shutdown.

As Montana submitted the East Helena SO_2 Redesignation Request to the EPA on October 26, 2018, contemporaneous ambient SO_2 monitoring data was not available due to the discontinuation of the East Helena monitoring network on May 31, 2001. Generally, for a redesignation, the *most recent* eight quarters of ambient monitoring data must show compliance with the NAAQS.[43] For this reason and based on the recommendations of applicable guidance discussed further below, the EPA also found it appropriate to review available air quality modeling to complete our determination of attainment analysis.

b. Review of Air Quality Modeling Data

[41] These permits are available in the docket for this proposed rulemaking action.
[42] As noted in the EPA's "Establishment of Due Date for Sulfur Dioxide SIP for the Secondary NAAQS for East Helena, MT," ASARCO "is the only major source of SO_2 emissions in the East Helena area." *See* 58 FR 52237, October 7, 1993.
[43] EPA Memo "Section 107 Designation Policy Summary," Sheldon Meyers, April 21, 1983.

Generally, for redesignating a nonattainment area to attainment, the CAA requires the EPA to determine that the area has attained the applicable NAAQS.[44] For some pollutants, this determination relies solely on air quality monitoring data. However, for SO_2, monitoring data alone is generally insufficient to assess an area's attainment status. The EPA's Calcagni Memo states that for SO_2 and specified other pollutants, "dispersion modeling will generally be necessary to evaluate comprehensively sources' impacts." Typically, attainment planning for SO_2 involves dispersion modeling used to demonstrate that the emission limits adopted by the state suffice to assure attainment. With such modeling available, the EPA can generally determine an area to be attaining the standard without further modeling, provided monitoring data also support that determination. As noted, dispersion modeling was provided by the State and ASARCO and approved by the EPA to show attainment of the primary, but not secondary, SO_2 NAAQS. Because the EPA has approved Montana's primary SO_2 NAAQS dispersion modeling and attainment demonstration but has not received a secondary SO_2 NAAQS dispersion modeling and attainment demonstration from the State, we cannot rely on dispersion modeling as the sole basis for redesignation. Therefore, we have combined our analysis of monitoring and emissions data, listed above, with the modeling data discussed here to reach our proposed conclusion that the East Helena SO_2 NAA currently attains the 1971 SO_2 primary and secondary NAAQS.

In 1992, after promulgation of the CAA Amendments of 1990, MDEQ, ASARCO, and the EPA had been working together through compliance schedules and work plans to address issues found with early modeling studies to predict the ambient impacts of SO_2 emissions from the ASARCO smelter. These model results indicated that the NAAQS were violated when the

[44] CAA section 107(d)(3)(E)(i).

facility operated at allowable emissions limits. Modeling results predicted SO_2 exceedances in two areas to the south and southeast of the smelter. The EPA concluded from these early modeling runs that there is an ambient SO_2 problem caused by ASARCO's emissions.[45] Consequently, ASARCO opted to establish an enhanced ambient monitoring network in the areas where initial modeling results indicated maximum SO_2 concentrations.

Based on the results of the early dispersion modeling, ASARCO developed an updated modeling protocol and refined dispersion modeling studies to demonstrate compliance with the primary SO_2 NAAQS. Control strategies to meet the NAAQS in this scenario included production and process limitations that would be put into place with the, as of that time, yet to be submitted East Helena primary SO_2 Attainment SIP approved by the EPA on January 27, 1995 (60 FR 5313).

The General Preamble of the Act details the EPA's interpretation of reasonably available control measures (RACM), including reasonably available control technology (RACT), requirements, and defines RACT for SO_2 as the control technology necessary to achieve the NAAQS.[46] As part of the EPA-approved ISCST and RTDM dispersion models used to predict ambient SO_2 concentrations around the ASARCO smelter, multiple modeling runs were performed to test SO_2 concentrations related to emissions from each stack. The results were then used to develop the emission limits and operating stipulations below for several of the major emission points of the ASARCO smelter.

From the modeling results, ASARCO developed a set of parameters for combined emissions of the two largest SO_2 emission points, the sinter and blast furnace stacks, in order to

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[45] "Primary SO_2 NAAQS SIP Revision for East Helena, Montana, Technical Support Document, October 4, 1994." *See* Appendix E, October 9, 1992 letter from Douglas Skie to Jeffery Chaffee, with enclosure, discussing ASARCO's acceptance of the *de minimis* GEP height of 65 m for the blast furnace stack.

[46] 57 FR 13547, April 16, 1992; at 13560 – 13561.

provide operating flexibility while still providing for attainment of both the annual and 24-hour primary SO_2 NAAQS. These emissions compliance parameters were approved as a set of three linear equations[47] regulating the sinter stack and blast furnace stack daily SO_2 emissions. Per these parameters, the emissions rate from the sinter stack would limit the allowable emissions rate at the blast furnace to a level that provided for protection of the annual and 24-hour primary SO_2 NAAQS. If the sinter stack daily emissions fell within one of the three equation ranges, then the daily emissions of the blast furnace stack must not exceed a corresponding given value determined by that equation.

In addition to the compliance parameters developed for regulating combined emissions of the sinter and blast furnace stacks, maximum daily SO_2 emission limits were also established for these and other ASARCO emission points. The maximum allowable SO_2 emissions for the sinter and blast furnace stacks were set at 60.27 tons per calendar day and 29.64 tons per calendar day, respectively. Daily emissions of SO_2 from the double-contact sulfuric acid plant stack were not to exceed 4.30 tons per calendar day. ASARCO was required to operate continuous emission monitoring systems (CEMS) to determine compliance with the emission limitations for the sinter plant stack, blast furnace stack, and acid plant stack. SO_2 emissions from the concentrate storage and handling building stack (including the exhaust from the sinter plant ventilation system baghouse) were not to exceed 46 pounds per hour or 0.552 tons per calendar day.

The SIP-approved daily maximum emission limits, and also the compliance parameters for the combined emissions of the sinter and blast furnace stacks, went into effect September 1, 1994.[48] Two additional emission limitations on minor stack sources at the ASARCO smelter took

[47] "Primary SO_2 NAAQS SIP Revision for East Helena, Montana, Technical Support Document, October 4, 1994," at 20.
[48] 60 FR 5313, January 27, 1995.

effect on June 30, 1995; SO_2 emissions from the crushing mill baghouse stacks #1 and #2 were not to exceed 0.19 and 0.37 tons per calendar day, respectively.

As well as the aforementioned emission limitations, the EPA also imposed additional provisions[49] on ASARCO's operating stipulations to ensure that SO_2 emissions from miscellaneous volume and fugitive sources would not increase beyond their current levels. Moreover, ASARCO's previously approved catalyst screening maintenance procedures were prohibited.[50] As a result, sulfur dioxide emissions were no longer allowed to bypass the double-contact sulfuric acid plant for catalyst screening while the blast furnace was operating. The East Helena primary SO_2 Attainment SIP set the sunset date of the catalyst screening exemption as November 15, 1995. The above emissions limitations and stipulations imposed on ASARCO were incorporated into the control strategy that the EPA fully approved for the East Helena primary SO_2 Attainment Plan's RACM (including RACT) as attaining the primary SO_2 NAAQS by November 15, 1995.

In addition to these modeled emission rates for the ASARCO smelter, Ash Grove was also included in the modeling for Montana's East Helena SO_2 Attainment SIP. The facility was modeled at a constant rate of 28.71 grams/second, equivalent to 998 tpy of SO_2. As noted, Ash Grove's current allowable SO_2 emissions are limited to 386 tpy by MAQP #2005-13 and Title V operating permit #OP2005-09.[51]

The EPA's criteria for evaluation of the modeling and attainment demonstration was the most recent version (at that time) of the EPA's *Guideline on Air Quality Models* at 40 CFR part

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[49] "Primary SO_2 NAAQS SIP Revision for East Helena, Montana, Technical Support Document, October 4, 1994," at 21.

[50] During catalyst screening maintenance, SO_2 that would normally be transformed into sulfuric acid and recovered as a product, instead was bypassing the acid plant pollution controls and was directly emitted to the atmosphere. *See* 49 FR 18482, May 1, 1984.

[51] These permits are available in the docket for this proposed rulemaking action.

51, Appendix W. Through the modeling provided, Montana demonstrated that the emission limits ensured compliance with both the 24-hour and annual primary NAAQS. The EPA determined that the modeling indicated that both primary SO_2 NAAQS would be attained by November 15, 1995, thereby complying with the attainment date stipulated in the CAA Amendments of 1990. The ASARCO modeling and the East Helena primary SO_2 Attainment SIP were approved by the EPA on January 27, 1995 (60 FR 5313).[52]

As noted in our January 27, 1995 approval of the East Helena primary SO_2 Attainment SIP (and elsewhere in this notice), the State of Montana was to provide the EPA with its 3-hour secondary NAAQS Attainment SIP in a forthcoming submittal. This was due to issues with compliance with the NAAQS, as discussed further below. After the promulgation of the CAA Amendments of 1990, the State of Montana was to provide modeling as part of an attainment demonstration showing compliance with the secondary 3-hour SO_2 NAAQS. Due to early modeled NAAQS violations, ASARCO elected to perform additional dispersion modeling using CTDMPLUS/ISCST2 and CTSCREEN models, and control strategy evaluations to show attainment with the secondary SO_2 NAAQS. Additionally, an enhanced meteorological monitoring network (to include doppler SODAR) was established to collect data for the complex CTDMPLUS dispersion model. Despite these efforts, the required submittal (including the modeled attainment demonstration) never materialized before the ASARCO smelter ceased operations in 2001.

As discussed earlier in this notice, ASARCO determined that the allowable emission rates modeled to achieve the primary 1971 SO_2 NAAQS in the East Helena primary SO_2 Attainment SIP would need to reduce emissions an additional 35 percent to achieve modeled

[52] "Primary SO_2 NAAQS SIP Revision for East Helena, Montana, Technical Support Document, October 4, 1994." *See* C. Dispersion Modeling and Attainment Demonstration, at 16.

compliance with the secondary SO_2 NAAQS. In our October 7, 1993 "Deadline for SIP Submittal" action, we noted that the substantial emissions reductions required to model attainment of the secondary SO_2 NAAQS cannot reasonably be achieved through production or process changes. ASARCO estimated that if production were reduced by 35 percent, annual revenue would be reduced by more than $12.4 million. ASARCO contended that such a reduction in revenue would make continued operation of the East Helena smelter economically infeasible. Though the EPA could not confirm the projected level of revenue loss, we noted that the economic impact to the industry and the community would be significant. We agreed with the State of Montana and ASARCO that the only feasible way to meet the secondary SO_2 NAAQS, based on modeling results, would be to install new air pollution control equipment or new process technologies.[53] Because Montana failed to submit the required secondary SO_2 NAAQS SIP, highway and offset sanctions were imposed by operation of law pursuant to a finding of failure to submit for a designated nonattainment area (42 USC 7509(a)(1)) on December 16, 1993.[54]

Considering ASARCO's estimate (based on dispersion modeling)[55] that an additional 35 percent emissions reduction would be necessary to meet the secondary SO_2 NAAQS, the EPA concludes that this level of reduction was far surpassed by the ASARCO shutdown. ASARCO's maximum allowable SO_2 emissions were permitted at 18,773 tpy when the EPA determined that this level of control was sufficient to attain the 1971 primary SO_2 NAAQS, and thus approved the East Helena primary SO_2 Attainment SIP.[56] As noted, Ash Grove was also included in this

[53] 58 FR 52237, October 7, 1993.
[54] *See* EPA's January 19, 1994 letter to Montana Governor Racicot in the docket for this action.
[55] 58 FR 52237, October 7, 1993.
[56] ASARCO's enforceable SO_2 emission limits have been comprised of permit limits and SIP-approved limits. ASARCO's MAQP SO_2 emission limit was 18,733 tpy before the permit was revoked in 2010. The East Helena

attainment modeling, with a modeled constant emission rate of 28.71 grams per second, equivalent to 998 tpy of SO_2. Hence, an additional reduction of 6,570.5 tpy (35 percent of 18,773) of SO_2 from ASARCO, or estimated allowable emissions 12,202.5 tpy, should suffice to meet the secondary SO_2 NAAQS even if Ash Grove were to emit 998 tpy of SO_2 annually, over 2.5 times current Ash Grove allowable emissions. The current allowable emissions in the East Helena area are 386.09 tpy of SO_2 (See Table 3), just 3 percent of the estimated allowable rates sufficient to attain the secondary SO_2 NAAQS. On this basis, the EPA is proposing to conclude that the modeling performed as part of the East Helena primary SO_2 Attainment SIP, considered alongside current allowable emissions in the East Helena area and the attaining monitoring listed in Table 1, demonstrate that the East Helena area is attaining the 3-hour secondary SO_2 NAAQS.

As will be discussed further in the EPA's review of 107(d)(3)(E) criteria 2 and 5, the EPA's longstanding interpretation of the nonattainment planning requirements of CAA section 172 is that once an area is attaining the NAAQS, those requirements are not "applicable" for purposes of CAA section 107(d)(3)(E)(ii) and therefore need not be approved into the SIP before the EPA can redesignate the area. The EPA is proposing to reach a similar conclusion regarding the State's outstanding requirement to submit to the EPA a 3-hour secondary NAAQS Attainment SIP. Specifically, because the EPA is proposing to conclude that the East Helena NAA is currently attaining the 3-hour secondary SO_2 NAAQS, the State is not required to also submit a SIP providing for such attainment.

c. EPA's Proposed Determination of Attainment

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primary SO_2 Attainment SIP further strengthened ASARCO's SO_2 emissions limits as discussed in detail above. All of ASARCO's emission limits, be they SIP-approved or permitted, are enforceable. Had ASARCO operated at its daily maximum emission limits as a constant yearlong rate, doing so would have violated the MAQP emission limit and the enforceable compliance parameters. The daily maximum emission limit was never intended as a constant maximum allowable emission rate. Rather, the 1995 primary SO_2 Attainment SIP emission limits and operating stipulations were developed to provide ASARCO with maximum operating flexibility.

As discussed above, the normal prerequisite for redesignation of a nonattainment area is submittal of quality-assured ambient data with no violations of the NAAQS for the most recent eight consecutive quarters.[57] Generally, a modeling demonstration is also necessary for SO_2 nonattainment areas seeking to redesignate.[58] The Seitz Memo recognizes that states should be provided an opportunity to request redesignation for areas where there is no contemporary monitoring data available if there is no reasonable basis for assuming that SO_2 violations persist after closure of the sources that were the cause of these violations.[59] We find that East Helena is such an area, and that available monitoring and modeling data discussed above also indicate current attainment of both the primary and secondary 1971 SO_2 NAAQS. We therefore propose to determine that the East Helena NAA is attaining the primary and secondary 1971 SO_2 NAAQS.

2. Criteria (2)—Montana Has a Fully Approved SIP Under Section 110(k); and Criteria (5)—Montana Has Met All Applicable Requirements Under Section 110 and Part D of Title I of the CAA

For redesignating a nonattainment area to attainment under a NAAQS, the CAA requires the EPA to determine that the state has met all applicable requirements for that NAAQS under section 110 and part D of title I of the CAA (CAA section 107(d)(3)(E)(v)) and that the state has a fully approved SIP under section 110(k) for that NAAQS for the area (CAA section 107(d)(3)(E)(ii)). The EPA proposes to find that Montana has met all applicable SIP requirements for the East Helena SO_2 NAA under section 110 of the CAA (general SIP requirements) for purposes of redesignation. Additionally, the EPA proposes to find that the

[57] Helms Memo at 1.
[58] Calcagni Memo at 3.
[59] Seitz Memo at 1.

Montana SIP satisfies the criterion that it meets applicable SIP requirements for purposes of redesignation under part D of title I of the CAA in accordance with section 107(d)(3)(E)(v). Further, the EPA proposes to determine that the SIP is fully approved with respect to all requirements applicable for the 1971 SO_2 NAAQS for purposes of redesignation in accordance with section 107(d)(3)(E)(ii). In making these determinations, the EPA ascertained which requirements are applicable to the East Helena SO_2 NAA and, if applicable, that they are fully approved under section 110(k).

a. The East Helena SO_2 NAA Has Met All Applicable Requirements Under Section 110 and Part D of the CAA

General SIP Requirements.

General SIP elements and requirements are delineated in section 110(a)(2) of title I, part A of the CAA. These requirements include, but are not limited to, the following: Submittal of a SIP that has been adopted by the state after reasonable public notice and hearing; provisions for establishment and operation of appropriate procedures needed to monitor ambient air quality; implementation of a source permit program; provisions for the implementation of part C requirements (Prevention of Significant Deterioration (PSD)) and provisions for the implementation of part D requirements (New Source Review (NSR) permit programs); provisions for air pollution modeling; and provisions for public and local agency participation in planning and emission control rule development.

Section 110(a)(2)(D) requires that SIPs contain certain measures to prevent sources in a state from significantly contributing to air quality problems in another state. To implement this provision, the EPA has required certain states to establish programs to address the interstate transport of air pollutants. The section 110(a)(2)(D) requirements for a state are not linked with a

particular nonattainment area's designation and classification in that state. The EPA believes that the requirements linked with a particular nonattainment area's designation and classifications are the relevant measures to evaluate in reviewing a redesignation request. The transport SIP submittal requirements, where applicable, continue to apply to a state regardless of the designation of any one particular area in the state. Thus, the EPA does not believe that the CAA's interstate transport requirements should be construed to be applicable requirements for purposes of redesignation.

In addition, the EPA believes other section 110 elements that are neither connected with nonattainment plan submissions nor linked with an area's attainment status are applicable requirements for purposes of redesignation. The area will still be subject to these requirements after the area is redesignated. The section 110 and part D requirements which are linked with a particular area's designation and classification are the relevant measures to evaluate in reviewing a redesignation request. This approach is consistent with the EPA's existing policy on applicability (*i.e.,* for redesignations) of conformity and oxygenated fuels requirements, as well as with section 184 ozone transport requirements. *See* Reading, Pennsylvania, proposed and final rulemakings (61 FR 53174-53176, October 10, 1996), (62 FR 24826, May 7, 2008); Cleveland-Akron-Loraine, Ohio, final rulemaking (61 FR 20458, May 7,1996); and Tampa, Florida, final rulemaking at (60 FR 62748, December 7, 1995). *See also* the discussion on this issue in the Cincinnati, Ohio, redesignation (65 FR 37890, June 19, 2000), and in the Pittsburgh, Pennsylvania, redesignation (66 FR 50399, October 19, 2001).

Title I, Part D, applicable SIP Requirements.

Section 172(c) of the CAA sets forth the basic requirements of attainment plans for nonattainment areas that are required to submit them pursuant to section 172(b). Subpart 5 of

part D, which includes section 191 and 192 of the CAA, establishes requirements for SO_2, nitrogen dioxide and lead nonattainment areas. A thorough discussion of the requirements contained in sections 172(c) can be found in the General Preamble for Implementation of Title I (57 FR 13498).

Subpart 5 Section 172 Requirements.

Section 172(c)(1) requires the plans for all nonattainment areas to provide for the implementation of all RACM as expeditiously as practicable and to provide for attainment of the NAAQS. The EPA interprets this requirement to impose a duty on all nonattainment areas to consider all available control measures and to adopt and implement such measures as are reasonably available for implementation in each area as components of the area's attainment demonstration. Under section 172, states with nonattainment areas must submit plans providing for timely attainment and meeting a variety of other requirements.

The EPA's longstanding interpretation of the nonattainment planning requirements of section 172 is that once an area is attaining the NAAQS, those requirements are not "applicable" for purposes of CAA section 107(d)(3)(E)(ii) and therefore need not be approved into the SIP before the EPA can redesignate the area. In the 1992 General Preamble for Implementation of Title I, the EPA set forth its interpretation of applicable requirements for purposes of evaluating redesignation requests when an area is attaining a standard. *See* 57 FR 13498, 13564 (April 16, 1992). The EPA noted that the requirements for Reasonable Further Progress (RFP) and other measures designed to provide for attainment do not apply in evaluating redesignation requests because those nonattainment planning requirements "have no meaning" for an area that has already attained the standard. *Id.* This interpretation was also set forth in the Calcagni Memo. The EPA's understanding of section 172 also forms the basis of its Clean Data Policy, which was

articulated with regard to SO_2 in the 2010 SO_2 NAA Guidance and suspends a state's obligation to submit most of the attainment planning requirements that would otherwise apply, including an attainment demonstration and planning SIPs to provide for RFP, RACM, and contingency measures under section 172(c)(9). Courts have upheld the EPA's interpretation of section 172(c)(1) for "reasonably available" control measures and control technology as meaning only those controls that advance attainment, which precludes the need to require additional measures where an area is already attaining. *NRDC v. EPA*, 571 F.3d 1245, 1252 (D.C. Cir. 2009); *Sierra Club v. EPA*, 294 F.3d 155, 162 (D.C. Cir. 2002); *Sierra Club v. EPA*, 314 F.3d 735, 744 (5th Cir. 2002); *Sierra Club v. EPA*, 375 F.3d 537 (7th Cir. 2004). But see *Sierra Club v. EPA*, 793 F.3d 656 (6th Cir. 2015).

Therefore, because attainment has been reached in the East Helena SO_2 NAA, no additional measures are needed to provide for attainment, and section 172(c)(1) requirements for an attainment demonstration and RACM are not part of the "applicable implementation plan" required to have been approved prior to redesignation per CAA section 107(d)(3)(E)(ii). The other section 172 requirements that are designed to help an area achieve attainment—the section 172(c)(2) requirement that nonattainment plans contain provisions promoting reasonable further progress, the requirement to submit the section 172(c)(9) contingency measures, and the section 172(c)(6) requirement for the SIP to contain control measures necessary to provide for attainment of the NAAQS – are also not required to be approved as part of the "applicable implementation plan" for purposes of satisfying CAA section 107(d)(3)(E)(ii).[60]

Section 172(c)(3) requires submission and approval of a comprehensive, accurate, and current inventory of actual emissions. The East Helena primary SO_2 Attainment SIP contained an

[60] The EPA notes that MDEQ has met the requirements of CAA section 172(c)(1), (2), (6), and (9) for the 1971 primary SO_2 NAAQS, but not for the 1971 secondary SO_2 NAAQS. 60 FR 5315, January 27, 1995.

inventory which the EPA approved as meeting the requirements of CAA section 172(c)(3).[61] This inventory reported annual SO_2 emissions for the ASARCO facility at approximately 18,000 tpy, with approximately 280 tpy attributed to the Ash Grove kiln stacks. The more contemporary emissions inventory submitted as part of the maintenance plan for the East Helena SO_2 NAA will be discussed further in the maintenance plan portion of this proposed action.

Section 172(c)(4) requires the identification and quantification of allowable emissions for major new and modified stationary sources to be allowed in an area, and section 172(c)(5) requires source permits for the construction and operation of new and modified major stationary sources anywhere in the nonattainment area. The EPA has a longstanding interpretation that because Nonattainment NSR (NNSR) is replaced by PSD upon redesignation, nonattainment areas seeking redesignation to attainment need not have a fully approved part D NNSR program in order to be redesignated. A more detailed rationale for this view is described in a memorandum from Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled "Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment." Montana currently has a fully-approved PSD and part D NNSR program in place at Administrative Rules of Montana (ARM) Subchapter 8. Montana's PSD program will become effective in the East Helena SO_2 NAA upon redesignation to attainment.

Section 172(c)(7) requires the SIP to meet the applicable provisions of section 110(a)(2). As noted above, the EPA believes the Montana SIP meets the requirements of section 110(a)(2) applicable for purposes of redesignation.

Section 176 Conformity Requirements.

[61] 60 FR 5315, January 27, 1995.

Section 176(c) of the CAA requires states to establish criteria and procedures to ensure that federally supported or funded projects conform to the air quality planning goals in the applicable SIP. The requirement to determine conformity applies to transportation plans, programs, and projects that are developed, funded, or approved under title 23 of the United States Code (U.S.C.) and the Federal Transit Act (transportation conformity) as well as to all other federally supported or funded projects (general conformity). State transportation conformity SIP revisions must be consistent with federal conformity regulations relating to consultation, enforcement, and enforceability that the EPA promulgated pursuant to its authority under the CAA.

Montana has an approved general conformity SIP for the East Helena area. *See* 67 FR 62392 (October 7, 2002). Moreover, the EPA interprets the conformity SIP requirements as not applying for purposes of evaluating a redesignation request under section 107(d) because, like other requirements listed above, state conformity rules are still required after redesignation and federal conformity rules apply where state rules have not been approved. *See Wall* v. *EPA,* 265 F.3d 426 (6th Cir. 2001) (upholding this interpretation); *see also* 60 FR 62748 (December 7, 1995) (redesignation of Tampa, Florida).

For these reasons, the EPA proposes to find that Montana has satisfied all applicable requirements for purposes of redesignation of the East Helena SO_2 NAA under section 110 and part D of title I of the CAA.

b. The East Helena SO_2 NAA Has a Fully Approved Applicable SIP Under Section 110(k) of the CAA

The EPA has fully approved the applicable Montana SIP for the East Helena SO_2 NAA under section 110(k) of the CAA for all requirements applicable for purposes of redesignation.

As indicated above, the EPA believes that the section 110 elements that are neither connected with nonattainment plan submissions nor linked to an area's nonattainment status are not applicable requirements for purposes of redesignation. The EPA has approved all part D requirements applicable under the 1971 SO_2 NAAQS, as identified above, for purposes of this redesignation.

3. Criteria (3)—The Air Quality Improvement in the East Helena SO_2 NAA Is Due to Permanent and Enforceable Reductions in Emissions

For redesignating a nonattainment area to attainment, the CAA requires the EPA to determine that the air quality improvement in the area is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP, applicable federal air pollution control regulations, and other permanent and enforceable reductions (CAA section 107(d)(3)(E)(iii)). The EPA proposes to find that Montana has demonstrated that the observed air quality improvement in the East Helena SO_2 NAA is due to permanent and enforceable reductions in emissions. Specifically, the EPA considers the shutdown of the ASARCO smelter, identified as the cause of SO_2 NAAQS violations,[62] to be both permanent and enforceable due to the source's dismantling and permit revocation. The EPA notes that the ASARCO smelter was still operating during the 1987-2001 period during which the 1971 primary and secondary SO_2 NAAQS was attained across the East Helena enhanced monitoring network. Due to the ASARCO shutdown, the EPA reasonably concludes that the 1971 SO_2 NAAQS would have and will continue to be attained by a far greater margin following the facility's shutdown. As stated in the Calcagni Memo, "Emission reductions from source shutdowns can be considered permanent and enforceable to the extent that those shutdowns have been reflected in the SIP and

[62] 58 FR 52237, October 7, 1993.

all applicable permits have been modified accordingly."[63] As noted, MDEQ revoked ASARCO's MAQP #2557-12 on January 5, 2010, and the source's Title V permit #OP2557-04 expired on April 4, 2007.[64] Further, the ASARCO facility has been demolished, making its future operation impossible and thus exhibiting the permanence of the emissions reductions in the nonattainment area. Any new sources seeking to operate within the East Helena NAA would first be required to demonstrate that their new SO_2 emissions would not interfere with attainment and maintenance of the 1971 (and 2010) SO_2 NAAQS.[65] Therefore, the EPA is proposing to find that the air quality improvement in the East Helena SO_2 NAA is due to permanent and enforceable reductions in emissions.

4. Criteria (4)—The East Helena SO_2 Nonattainment Area Has a Fully Approved Maintenance Plan Pursuant to Section 175A of the CAA

To redesignate a nonattainment area to attainment, the CAA requires the EPA to determine that the area has a fully approved maintenance plan pursuant to section 175A of the CAA (CAA section 107(d)(3)(E)(iv)). In conjunction with its request to redesignate the East Helena SO_2 NAA to attainment for the 1971 primary and secondary SO_2 NAAQS, MDEQ submitted a SIP revision to provide for the maintenance of these NAAQS for at least 10 years after the effective date of redesignation to attainment. As will be discussed in further detail in Section III.B., "CAA Section 175A Requirements," the EPA is proposing to find that this

[63] Calcagni Memo at 10.
[64] Permit revocation letter is included in the docket for this action.
[65] All 1971 SO_2 NAAQS will continue to apply in the East Helena SO_2 NAA (in addition to the 2010 SO_2 NAAQS) after redesignation to attainment unless further action is taken by the State requesting 1971 primary SO_2 NAAQS revocation. As stated in the 2010 SO_2 NAAQS promulgation, "EPA is also providing that the annual and 24-hour NAAQS remain in place for any current nonattainment area…until the affected area submits, and EPA approves, a SIP with an attainment, implementation, maintenance and enforcement SIP which fully addresses the attainment and maintenance requirements of the new SO_2 NAAQS." See 75 FR 35581, June 22, 2010.

maintenance plan for the area meets the requirements for approval under section 175A of the CAA.

B. EPA Review of CAA Section 175A Requirements

1. Maintenance Plan Requirements

CAA section 175A sets forth the elements of a maintenance plan for areas seeking redesignation from nonattainment to attainment. Under section 175A, the plan must demonstrate continued attainment of the applicable NAAQS for at least 10 years after the Administrator approves a redesignation to attainment. Eight years after the redesignation, the state must submit a revised maintenance plan demonstrating that attainment will continue to be maintained for the 10 years following the initial 10-year period. To address the possibility of future NAAQS violations, the maintenance plan must contain contingency measures as the EPA deems necessary to assure prompt correction of any future SO_2 NAAQS violations. The Calcagni Memo provides further guidance on the content of a maintenance plan, explaining that a maintenance plan should address five requirements: the attainment emissions inventory; maintenance demonstration; monitoring; verification of continued attainment; and a contingency plan.[66]

As noted, the Seitz Memo provides maintenance plan guidance specific to nonattainment areas whose historic violations were caused by a major point source that is no longer in operation. The Seitz memo provides a path for such areas to justify exemption from maintenance plan requirements of continued monitoring and describes how attainment and continued maintenance could be demonstrated in such areas. Based on our review of the East Helena SO_2 Redesignation Request and relevant past rulemaking actions,[67] the EPA finds that the East Helena SO_2 NAA is an appropriate area for application of the guidance laid out in the Seitz

[66] Calcagni Memo at 8-13.
[67] 60 FR 5315, January 27, 1995.

Memo. The EPA has therefore elected to assess the East Helena SO_2 Maintenance Plan based on the recommendations provided in the Seitz Memo, as discussed further below.

2. Review of the East Helena SO_2 Maintenance Plan in the Context of the Seitz Memo

In order to allow areas to qualify for redesignation to attainment, the Seitz Memo policy requires that the maintenance plan address otherwise applicable provisions, and include: (1) Emissions inventories representing actual emissions when violations occurred, current emissions and emissions projected to the 10^{th} year after redesignation; (2) Dispersion modeling showing that no NAAQS violations will occur over the next 10 years and that the shut down source was the dominant cause of the high concentrations in the past; (3) Evidence that if the shut down source resumes operation, it would be considered a new source and be required to obtain a permit under the PSD provisions of the CAA; and (4) A commitment to resume monitoring before any major SO_2 source commences operation. The EPA will address these requirements individually, below.

a. Emissions Inventory

The Seitz Memo recommends a state's maintenance plan include emissions inventories representing actual emissions when violations occurred, current emissions and emissions projected to the 10^{th} year after redesignation. Montana's East Helena SO_2 Maintenance Plan included both past actual and future projected attainment emissions inventories[68] for the East Helena SO_2 NAA. The two sources included in these inventories are the American Chemet Corporation (Chemet) and Ash Grove, despite the latter facility's location outside of the East Helena SO_2 NAA. MDEQ's future projected attainment inventory used Chemet's permitted allowable SO_2 limit of 0.09 tpy (per MAQP #1993-19) and Ash Grove's permitted allowable

[68] East Helena SO_2 Redesignation Request and Maintenance Plan, October 26, 2018, at 13-14.

limit of 386 tpy, to calculate a total projection of 386.09 tpy of SO_2 emissions each year from 2017 to 2026. This attainment inventory is provided in Table 3, below, with actual emissions replacing the State's projected allowable limits for 2017. We conclude that the inventories provided by the State are complete, accurate, and consistent with applicable CAA provisions and the Seitz Memo.

The State also included historic emissions data for ASARCO and Ash Grove from 1990 to 2001.[69] Neither the State nor the EPA has emissions data available for these facilities prior to 1990, due to ASARCO's 2001 shut down and the passage of time. Therefore, there is not an inventory available that can provide actual emissions when violations occurred, as recommended by the Seitz Memo. We do not consider this to be an issue, as the historic emissions inventory provided by the State and our review of previous rulemaking actions for East Helena clearly show that the shut down source, ASARCO, was the cause of historic SO_2 violations.

Table 3. East Helena SO_2 Maintenance Area Projected Attainment Inventory

Year	Ash Grove	Chemet
2017	102*	0.02*
2018	386	0.09
2019	386	0.09
2020	386	0.09
2021	386	0.09
2022	386	0.09
2023	386	0.09
2024	386	0.09
2025	386	0.09
2026	386	0.09

* Indicates actual emissions

b. Dispersion Modeling

[69] Id. at 8.

Past EPA policy memoranda on SO_2 redesignations have recommended dispersion modeling. Per the Seitz Memo, the purpose of such modeling analysis is to show that; 1) No SO_2 NAAQS violations presently occur or can be projected to occur during the next 10 years anywhere within the nonattainment area, and 2) point sources, which have since shut down, were the dominant sources contributing to high SO_2 concentrations in the airshed.[70] The State elected not to submit an updated dispersion modeling analysis to the EPA as part of the East Helena SO_2 Maintenance Plan. For this reason, the EPA is relying on the dispersion modeling conducted in coordination with ASARCO, the MDEQ, and the EPA in the 1990's as part of the East Helena primary SO_2 Attainment Plan, to make this two-part showing. An in depth discussion on this modeling is presented in section III.A.1., above.

The EPA finds that the dispersion modeling for the East Helena primary SO_2 Attainment Plan is adequate to make the two-part showing recommended by the Seitz Memo. First, the SO_2 limits relied upon to model attainment of the 1971 primary SO_2 NAAQS, and the additional 35 percent SO_2 reduction necessary to model attainment of the secondary SO_2 NAAQS, both projected annual ASARCO emissions above 10,000 tpy and Ash Grove emissions at 998 tpy. Because current allowable emissions in the East Helena area are just 386.09 tpy, we find this sufficient evidence that no violations presently occur or can be projected to occur during the next 10 years anywhere within the nonattainment area. Second, the information provided throughout today's proposed rulemaking, most notably Table 2, clearly demonstrate that ASARCO was the dominant source contributing to high SO_2 concentrations in the East Helena area. For these reasons, the EPA finds that the ambient SO_2 modeling requirement for redesignations and maintenance plans is met.

[70] Seitz Memo at 3.

c. Permitting of New or Modified Sources

For the East Helena SO_2 NAA, the NNSR permit program responsibilities are held by MDEQ. MDEQ has longstanding, SIP-approved PSD and minor NSR permitting programs.[71] In conjunction with all SIP-approved requirements of MDEQ's SIP-approved PSD permitting program, the Source Impact Analysis requires "[t]he owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emission increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of any national ambient air quality standard in any air quality control region or any applicable maximum allowable increase over the baseline concentration in any area."[72]

Furthermore, in conjunction with all SIP-approved requirements of MDEQ's SIP-approved minor source permitting program, Conditions For Issuance or Denial of Permit,[73] requires that, "[a] Montana air quality permit may not be issued for a new or modified facility or emitting unit unless the applicant demonstrates that the facility or emitting unit can be expected to operate in compliance with the Clean Air Act of Montana and rules adopted under that Act, the Federal Clean Air Act and rules promulgated under that Act (as incorporated by reference in ARM 17.8.767), and any applicable requirement contained in the Montana State Implementation Plan (as incorporated by reference in ARM 17.8.767), and that it will not cause or contribute to a violation of any Montana or national ambient air quality standard." MDEQ is committed to continuing to implement its SIP-approved major and minor source permitting programs in the

[71] ARM Title 17, Chapter 8, Subchapters 7, 8, 9 and 10.
[72] ARM 17.8.820.
[73] ARM 17.8.749.

East Helena maintenance area to ensure that any new or modified (or reopened)[74] industrial source of SO_2 emissions will not cause or contribute to a subsequent SO_2 NAAQS violation in the area. Further, any appropriate changes to the ARM will be submitted to the EPA for approval as a SIP revision.

These programs will apply to any major source wishing to locate in the East Helena NAA once the it is redesignated to attainment. The MDEQ commitment to treat any major source in or near East Helena as "new" under the PSD program satisfies the preconstruction permit provision of the Seitz Memo as one of the prerequisites to redesignation.

d. Monitoring

In the East Helena SO_2 Maintenance Plan, the State requires installation of appropriate SO_2 monitoring for a minimum of three years if a major source of SO_2 attempts to locate within the East Helena SO_2 NAA and the source's modeling indicates that the SO_2 impacts are greater than 75 percent of the NAAQS including background to ensure that the NAAQS are adequately protected. Moreover, Montana's PSD program also requires that permit applicants conduct preconstruction monitoring to identify baseline concentrations. Together, these commitments address the monitoring provision of the Seitz Memo.

3. Review of Remaining Maintenance Plan Provisions

As discussed above, CAA section 175A sets forth the statutory requirements for maintenance plans, and the Calcagni and Shaver memos cited above contain specific EPA guidance. The only maintenance plan element not covered by the Seitz Memo is the contingency provision. CAA Section 175A provides that maintenance plans "contain such contingency

[74] The EPA does not foresee any new source operating within the boundaries of the East Helena NAA due to its Superfund designation, completed remediation activities to date, and institutional controls imposed on the East Helena Site (including future deed restrictions).

provisions as the Administrator deems necessary to assure that the State will promptly correct any violation of the standard which occurs after the redesignation of the area as an attainment area."

The East Helena SO_2 Maintenance Plan includes the State's commitment to continue to implement and enforce measures necessary to maintain the SO_2 NAAQS. MDEQ's current operating permit program places limits on SO_2 emissions from existing sources. Should an existing facility (such as Chemet) want to increase SO_2 emissions by 40 tpy or more, the facility would be subject to the PSD program. Should a new facility be constructed in the East Helena maintenance area, the facility would also be subject to PSD.

The Calcagni Memo emphasizes the importance of specific contingency measures, schedules for adoption, and action levels to trigger implementation of the contingency plan. The Calcagni Memo also states that a contingency plan must require that the state implement all measures contained in the part D nonattainment plan. Since all of the measures contained in the East Helena primary SO_2 Attainment Plan (which satisfied part D for the 1971 primary NAAQS) specifically addressed the ASARCO facility, the EPA does not find it reasonable to contain such measures in the East Helena SO_2 Maintenance Plan now that the facility does not exist. Additionally, the EPA is proposing to conclude that the projected allowable SO_2 emissions limits for the two remaining sources in the East Helena area (Ash Grove and Chemet) are protective of the NAAQS. For these reasons, the State's contingency plan focuses on ensuring that new sources or modifications of existing permitted sources are protective of the SO_2 NAAQS. We agree with the State that any new source planning to locate within the maintenance area or

existing source proposing a significant[75] increase in SO_2 emissions would be subject to Montana's SIP-approved PSD and minor NSR permitting programs.[76] Thus, we find that MDEQ's permitting program is sufficient to track future air quality trends and to assure that the East Helena maintenance area will not violate the NAAQS. If Montana identifies the potential for a NAAQS violation through the permitting process, the State would be required to ascertain what measures must be taken to avoid the violation. We are therefore proposing to conclude that the East Helena SO_2 Maintenance Plan satisfactorily addresses the "contingency plan" requirement of CAA section 175A.

The EPA generally requires that a state continue ambient monitoring to meet the maintenance plan requirement for verification of continued attainment. However, the Seitz Memo provides the opportunity for redesignated areas to be exempt from continued ambient monitoring of maintenance areas when the dominant source of SO_2 in the area has shut down.[77] As discussed earlier in this proposed notice, we find that the East Helena SO_2 NAA's unique circumstances are appropriate for application of the Seitz Memo guidance. Therefore, we determine that in this instance, an exemption to continued monitoring would be appropriate. If today's action is finalized as proposed, MDEQ will not be monitoring to verify SO_2 NAAQS compliance in the East Helena area unless required by Montana's permitting program following the introduction of a new or modified source to the area. The state has provided evidence that SO_2 monitoring conducted between 1987 and ASARCO's shutdown in 2001 met the applicable NAAQS with no violations observed during that time (See Table 1). Additionally, due to the total removal of the ASARCO facility, the source of the SO_2 NAAQS violations have been

[75] Per 40 CFR 52.21(b)(23)(i), a net emissions increase or potential to emit of 40 tpy or greater is considered "significant" for SO_2.
[76] ARM Title 17, Chapter 8, Subchapters 7, 8, 9 and 10.
[77] Seitz Memo at 1.

eliminated. With ASARCO removed from the total SO_2 emissions in the East Helena area, available evidence indicates attainment will be met by a wide margin. We agree with MDEQ that maintenance of the SO_2 NAAQS in the East Helena SO_2 maintenance area can be tracked through updates to the emissions inventory and operating permit applications received for SO_2 emitting sources for verification of continued attainment.

C. EPA's Proposed Conclusion

Based on the EPA's analysis of the East Helena SO_2 Redesignation Request and Maintenance Plan, provided in sections III.A. and III.B., the EPA is proposing to determine that the State has met all applicable requirements of CAA sections 107(d)(3)(E) and 175A.

IV. Proposed Action

After review and analysis of Montana's submittal, the EPA is proposing to redesignate the East Helena, Montana SO_2 NAA to attainment for the 1971 primary 24-hour and annual, and secondary 3-hour SO_2 NAAQS. The EPA is also proposing to approve the State's plan for continued maintenance and attainment of the 1971 primary 24-hour and annual, and secondary 3-hour SO_2 NAAQS in East Helena, Montana for ten years following redesignation to attainment.

V. Statutory and Executive Order Reviews

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

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not proposed 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, Nitrogen dioxide, Particulate matter, Sulfur oxides.

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

Dated: July 11, 2019.

Gregory Sopkin,
Regional Administrator,
EPA Region 8.

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