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2022 Regional SO₂ Emissions and Milestone Report

Submitted [Date]

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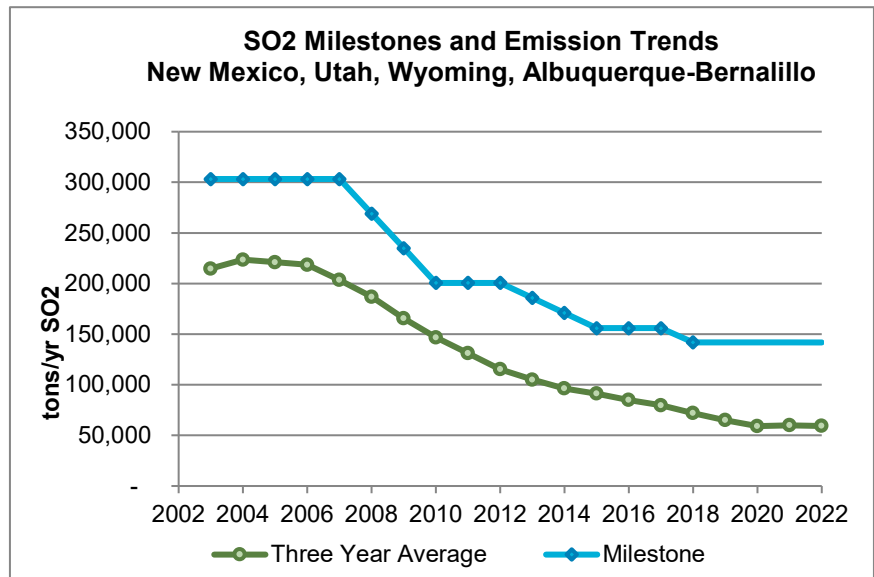
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2022 Regional SO₂ Emissions and Milestone Report

Executive Summary

Under Section 309 of the Federal Regional Haze Rule, nine western states, and tribes within those states, have the option of submitting plans to reduce regional haze emissions that impair visibility at 16 Class I areas on the Colorado Plateau. Five states – Arizona, New Mexico, Oregon, Utah, and Wyoming – and Albuquerque-Bernalillo County initially exercised this option by submitting plans to the Environmental Protection Agency (EPA) by December 31, 2003. Oregon elected to cease participation in the program in 2006 and Arizona elected to cease participation in 2010. The tribes were not subject to the deadline and still can opt into the program at any time. Under the Section 309 plans, the three participating states and Albuquerque-Bernalillo County have tracked the emissions of the applicable stationary sources as part of the pre-trigger portion of the SO₂ Milestone and Backstop Trading Program. The Western Regional Air Partnership (WRAP) is assisting these states and county with the implementation and management of the regional emission reduction program. As used in this document, “Section 309 states” means New Mexico, Utah, Wyoming, and Albuquerque-Bernalillo County. (For CAA purposes, this report treats Albuquerque-Bernalillo County as a state because it has authority under federal and state law to administer the CAA separately from the rest of New Mexico).

As part of this program, Section 309 states must submit an annual Regional Sulfur Dioxide (SO₂) Emissions and Milestone Report that compares emissions to milestones. A milestone is a maximum level of annual emissions for a given year. The states submitted the first report in 2004 for the calendar year 2003. Over the course of the program, the states have consistently stayed below the milestones.



From 2003 to 2017 states compared the milestone to a three-year average of SO₂ emissions as required by their State Implementation Plans (SIP). The states’ SIPs require them to compare the final 2018 regional milestone to 2018 emissions rather than the three-year average. The regional milestone for 2018 is 141,849 tons. Section 309 of the Regional Haze Rule requires that states continue showing compliance with the final 2018 milestone beyond the first Regional Haze implementation period. In this document, the states report the 2022 adjusted emissions as required by Section 309 of the CAA. We compared the adjusted 2022 emissions to the final 2018 milestone to determine whether the states continue to meet the milestone. The adjustments to reported emissions were

required to allow the basis of current emission estimates to be comparable to the emissions monitoring or calculation method used in the most recent base year inventory.

As presented in Table ES-1, the Section 309 states reported 50,022 tons of SO₂ emissions for the calendar year 2022. The total emissions increased to 59,364 tons of SO₂ after adjusting to account for changes in monitoring, calculation methods, and enforcement actions. The adjustments result in an additional 9,342 tons of SO₂ emissions.

Based on this adjusted annual emissions estimate, Section 309 states determined that emissions in 2022 were below the regional SO₂ milestone for 2018. The states' Section 309 plans contain provisions to adjust the milestones to account for enforcement actions (to reduce the milestones where an enforcement action identified that emissions in the baseline period were greater than allowable emissions). Based on emissions data received from the states and plan requirements regarding adjustments to the milestones, no enforcement action adjustment is required.

The plans also require that the annual report identify, first, changes in the total number of sources from year to year and, second, significant changes in a source's emissions from year to year. The significant emission changes from 2021 to 2022 are included in Section 6 of this report. A list of facilities added to, or removed from, the list of subject sources in the original base year inventories is included in Appendix B.

**Table ES-1
Overview of 2022 Regional Milestones and Emissions for Section 309 Participating States**

<u>2018 Sulfur Dioxide Milestones</u>	
Regional 2018 Milestone*	141,849 tons
Adjusted 2018 Milestone	141,849 tons
<u>2022 Sulfur Dioxide Emissions</u>	
Reported 2022 Emissions	50,022 tons
Adjustments**	
Emission Monitoring, Calculation Methods, and Enforcement Actions	9,342 tons
Adjusted 2022 Emissions (rounded number)	59,364 tons
<u>Comparison of Emissions to Milestone</u>	
2022 Adjusted Emissions	59,364 tons
Adjusted Three-State 2018 Milestone	141,849 tons
Difference (Negative Value = Emissions < Milestone)	-82,485 tons
2022 Emissions as Percent of 2018 Milestone	42%

* See the Regional Milestones section of each state's 309 plan.

** See the Annual Emissions Report section of each state's 309 plan.

2022 Regional SO₂ Emissions and Milestone Report

1.0 Introduction

1.1 Background

Under Section 309 of the Federal Regional Haze Rule (40 CFR Part 51), nine western states, and the tribes within those states, have the option of submitting State Implementation Plans (SIPs) to reduce regional haze emissions that impair visibility at 16 Class I areas on the Colorado Plateau. Five states — Arizona, New Mexico, Oregon, Utah, and Wyoming — and Albuquerque-Bernalillo County exercised this option by submitting SIPs to the EPA by December 1, 2003. In October 2006, when EPA modified Section 309, Oregon elected to cease participation in the SO₂ Milestone and Backstop Trading Program by not resubmitting SIP under 309. In 2010, Arizona elected to cease participation in the program. The tribes were not subject to this deadline and still can opt into the program at any time.

Under the Section 309 SIPs, these three states and one local air agency have been tracking emissions under the pre-trigger requirements of the SO₂ Milestone and Backstop Trading Program since 2003. The Western Regional Air Partnership (WRAP) is assisting these states with the implementation and management of this regional emission reduction program.

Under the milestone phase of the program, Section 309 states have established annual SO₂ emissions targets (from 2003 to 2018). These voluntary emissions reduction targets represent reasonable progress in reducing emissions that contribute to regional haze. If the participating sources fail to meet the milestones through this voluntary program, then the states will trigger the backstop trading program and implement a regulatory emissions cap for the states, allocate emissions allowances (or credits) to the affected sources based on the emissions cap, and require the sources to hold sufficient allowances to cover their emissions each year.

This report is the twentieth annual report for the milestone phase of this program. The report provides background on regional haze and the Section 309 program, the milestones established under the program, and the emissions reported for 2022. Based on the last nineteen years of data, the voluntary milestone phase of the program is meeting its reasonable progress targets, and emissions are well below the target levels.

What is Regional Haze?

Regional haze is air pollution that is transported long distances and reduces visibility in national parks and wilderness areas across the country. Over the years, this haze has reduced the visual range from 145 kilometers (90 miles) to 24 – 50 kilometers (15 – 31 miles) in the East, and from 225 kilometers (140 miles) to 56 – 145 kilometers (35 – 90 miles) in the West. The pollutants that create this haze are sulfates, nitrates, organic carbon, elemental carbon, and soil dust. Human-caused haze sources include industry, motor vehicles, agricultural and forestry burning, and windblown dust from roads and farming practices.

What U.S. EPA Requirements Apply?

In 1999, the EPA issued regulations to address regional haze in 156 national parks and wilderness areas across the country. EPA published these regulations in the Federal Register on July 1, 1999 (64 FR 35714). The goal of the Regional Haze Rule (RHR) is to prevent any future,

and remedy any existing, visibility impairment from anthropogenic air pollution in certain national parks and wilderness areas. It contains strategies to improve visibility over the next six decades and requires states to adopt implementation plans.

The EPA's RHR provides two paths to address regional haze. One is 40 CFR 51.308 (Section 308) and requires most states to develop long-term strategies out to the year 2064. States must show that these strategies make "reasonable progress" in improving visibility in Class I areas inside the state and in neighboring jurisdictions. The other is 40 CFR 51.309 (Section 309), and is an option for nine states — Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah, and Wyoming — and the 211 tribes located within these states to adopt regional haze strategies for the period from 2003 to 2018. These strategies are based on recommendations from the Grand Canyon Visibility Transport Commission (GCVTC) for protecting the 16 Class I areas on the Colorado Plateau. Adopting these strategies constitutes reasonable progress until 2018. These nine western states and tribes can also use the same strategies to protect the other Class I areas within their own jurisdictions.

The EPA revised the RHR on July 6, 2005 (70 FR 39104), and again on October 13, 2006 (71 FR 60612) in response to two legal challenges. The October 13, 2006 revisions modified Section 309 to provide a methodology consistent with the Court's decision for evaluating the equivalence of alternatives to Best Available Retrofit Technology (BART), such as the alternative Section 309 strategy based on the GCVTC recommendations.

How Have the WRAP States Responded to EPA Requirements?

Of the nine states, and tribes within those states, that have the option under Section 309 of participating in a regional strategy to reduce SO₂ emissions, five states originally submitted Section 309 SIPs to EPA. These states were Arizona, New Mexico, Oregon, Utah, and Wyoming. In addition, Albuquerque-Bernalillo County also submitted a Section 309 SIP. Due to legal challenges, EPA did not approve the initial SIP submittals. EPA did, however, fully approve the regional milestone and backstop trading program in 2012.

Oregon and Arizona have opted out of submitting a revised Section 309 SIP under the modified RHR, which leaves three participating states and Albuquerque-Bernalillo County. To date, no tribes have opted to participate under Section 309, and the other four states of the original nine opted to submit SIPs under Section 308 of the RHR.

The following summarizes SO₂ related elements of the Section 309 process for the participating Section 309 states:

1. Section 309(d)(4)(i) requires SO₂ milestones in the SIP and includes provisions for adjusting these milestones, if necessary. The milestones must provide for steady and continuing emission reductions through 2018 and greater reasonable progress than BART.
2. Section 309(d)(4)(iii) requires monitoring and reporting of stationary source SO₂ emissions to ensure the SO₂ milestones are met. The SIP must commit to reporting to the WRAP as well as to EPA.

3. Section 309(d)(4)(iv) requires that a SIP contain criteria and procedures for activating the trading program within five years if an annual milestone is exceeded. A Section 309 SIP must also require assessments of the state's progress in 2013 and 2018.
4. Section 309(d)(4)(vi)(A) requires that unless and until a revised implementation plan is submitted in accordance with § 51.308(f) and approved by EPA, the implementation plan shall prohibit emissions from covered stationary sources in any year beginning in 2018 that exceed the year 2018 milestone.

This report responds to Item 2, above, and provides the annual report that compares the 2022 emissions against the milestones for the states and city that have submitted Section 309 SIPs to EPA.

What Elements Must the Regional SO₂ Emissions and Milestone Report Contain?

To facilitate compliance with the Section 309 SIPs, the WRAP has committed to compiling a regional report on emissions for each year. In accordance with the SIPs, the WRAP will compile the individual state emission reports into a summary report that includes:

1. Reported regional SO₂ emissions (tons/year).
2. Adjustments to account for:
 - Changes in emissions monitoring or calculation methods; or
 - Enforcement actions or settlement agreements as a result of enforcement actions.
3. As applicable, average adjusted emissions for the last three years (which are compared to the regional milestone). Per requirements in the Section 309 SIPs, it is understood that a single year of emissions are used in the report beginning in 2018.

How Is Compliance with the SO₂ Milestone Determined?

While the WRAP assists with the preparation of this report, each Section 309 state reviews the information in the report and proposes a draft determination that the regional SO₂ milestone is either met or exceeded for that year. Each state submits the draft determination for public review and comment, in accordance with its SIP, during the first part of 2024, culminating in a final report sent to EPA by March 31, 2024.

1.2 Report Organization

This report presents the regional SO₂ emissions and milestone information required by the 309 SIPs for the states that opted into the program. The report is divided into the following sections, including two appendices:

- Reported SO₂ Emissions in 2022;
- Emissions Adjustments Related to Monitoring Methodology or Enforcement Actions;
- 2022 Adjusted Emissions;
- Enforcement Milestone Adjustments;
- Quality Assurance (Including Source Change Information);
- Milestone Determination;
- Appendix A -- Facility Emissions and Emissions Adjustments; and
- Appendix B -- Changes to SO₂ Emissions and Milestone Source Inventory.

2.0 *Reported SO₂ Emissions in 2022*

The Section 309 SIPs require all stationary sources with reported emissions of 100 tons or more per year in the year 2000, or any subsequent year, to report annual SO₂ emissions. Table 1 summarizes the annual reported emissions from applicable sources in each state. The 2022 reported SO₂ emissions for each applicable source are in Appendix A, Table A-1.

Table 1. Reported 2022 SO₂ Emissions by State

State	Reported 2022 SO ₂ Emissions (tons/year)
Albuquerque-Bernalillo	99
New Mexico	2,232
Utah	8,952
Wyoming	38,739
TOTAL	59,364

3.0 *Emissions Adjustments Related to Monitoring Methodology or Enforcement Actions*

The annual emissions reports for each state include proposed emissions adjustments to ensure consistent comparison of emissions to the milestone. Each state adjusted the reported emissions levels so that they are comparable to the levels that would result if the state used the same emissions monitoring or calculation method used in the base year inventory (2006). The net impact throughout the region, because of adjustments related to the monitoring methodology, is an increase of 1,337 tons from the reported 2022 emissions.

Utah adjusted the emissions from the Carbon Power Plant due to an enforcement action. As part of Utah's BART alternative for NO_x, they required that the Carbon Power Plant shut down. Though there is an actual emissions reduction of 8,005 tons of SO₂ per year, the Utah Air Quality Board approved a Commitment SIP stating that the emissions reductions from the closure will not be counted for both the SO₂ Milestone program and the BART alternative controls. Therefore, an additional 8,005 tons of SO₂ are included in the calculations for this milestone report. Table 2 summarizes the emissions adjustments made for changes in monitoring methodology or enforcement actions.

Table 2. Adjustments for Changes in Monitoring Methodology or Enforcement Actions

State	Source	Reported 2022 SO ₂ Emissions (tons)	Adjusted 2022 SO ₂ Emissions (tons)	Monitoring Methodology Adjustment (tons)	Enforcement Action Adjustment (tons)	Description
UT	Holcim-Devil's Slide Plant	126	471	345		Now using CEM data
UT	PacifiCorp -- Carbon Power Plant	0	8,005		8,005	An Utah Enforceable Commitment SIP resolves that SO ₂ emissions reductions from the closure of the Carbon plant will not be counted as part of achieving the SO ₂ Milestones and as part of the Alternative to BART SIP for NO _x . Therefore, 8,005 tons of SO ₂ are included in the emissions totals.
UT	Chevron Products Co. -- Salt Lake Refinery	34	865	831		Increase in Adjusted SO ₂ Emissions is due to a correction in the calculation of Adjusted SO ₂ Emissions. The previous formula used to calculate SO ₂ included flowmeters and engineering judgement etc. The current formula for calculating now incorporates CEM data.
UT	Big West Oil Company - Flying J Refinery	66	228	162		Now using CEM data
UT	Materion Natural resources - Delta Mill (was Brush Resources)	1	0	-1		Increased mobile emissions from Routine Mill and TSF2 construction

4.0 *2022 Adjusted Emissions*

The SIPs require multi-year averaging of emissions from 2004 to 2017 for the milestone comparison. From 2005 to 2017, states compare a three-year average (which includes the reporting year and the two previous years) with the milestone. For this milestone report the SIPs require a comparison of 2022 emissions with the 2018 milestone. The adjusted emissions for 2022 are 59,364 tons. The following report sections describe the adjusted milestone determination.

5.0 *Enforcement Milestone Adjustments*

The SIPs require that each state report on proposed milestone adjustments due to enforcement actions, which affect baseline year emissions. The purpose of this adjustment is to remove emissions that occurred above the allowable level in the baseline year from the baseline and the annual milestones. The enforcement milestone adjustments require an EPA-approved SIP revision before taking effect. There were no proposed enforcement actions related to milestone adjustments reported for 2022.

6.0 *Quality Assurance*

The states provided 2022 emissions data based on their state emissions inventories. States used additional quality assurance (QA) procedures for this report to supplement the normal QA procedures the states follow for their emissions inventories. First, each state submitted a source change report, and second, the states compared their inventory data for utility sources against 40 CFR Part 75 Acid Rain Program monitoring data.

6.1 *Source Change Report*

The SIPs require that this annual SO₂ emissions and milestone report include a description of source changes or exceptions report to identify the following:

- Any new sources that were not contained in the previous calendar year's emissions report, and an explanation of why the sources are now included in the program.
- Identification of any sources that were included in the previous year's report and are no longer included in the program, and an explanation of why this change has occurred.
- An explanation for emissions variations at any applicable source that exceeds $\pm 20\%$ from the previous year.

Appendix B provides a list of all sources added or removed from the program inventory in this and previous reporting years.

Wyoming's Brady Gas Plant, Shoshone Unit Battery, Frannie Unit Battery No 1, Cody Unit Battery, and Frannie 2 Battery have previously reported SO₂ emissions, but they are not required to do so. New ownership of these sources has elected to no longer report emissions for the SO₂ Milestone Report.

Table 3 provides explanations for the emissions variations from applicable sources from 2021 – 2022 that are greater than 20%. Plants with variations greater than 20% but reported emissions of less than 20 tons in both 2021 and 2022, are not included in Table 3. Information on these plants is provided in Appendix A.

Table 3. Sources with an Emissions Change of > ±20% from the Previous Year

State	County FIPS	State Facility Identifier	Plant Name	Reported 2021 SO ₂ Emissions (tons)	Reported 2022 SO ₂ Emissions (tons)	% Change	Description Change > ±20% 2021 to 2022
ABQ	1	3500100008	GCC Rio Grande Inc. - Portland Cement Manufacturer	82	99	21%	SO ₂ levels fluctuate in the kilns during annual stack test compliance demonstrations, so GCC uses an emission factor that averages the stack test results back through 2016 to account for fluctuations. GCC also produced more clinker in 2022, which may have contributed to the increase.
NM	15	350150024	Agave Energy Co./Agave Dagger Draw Gas Plant AI211	30	926	2980%	Process conditions upsetting the acid gas compression/injection system or the acid gas compressors themselves experiencing malfunctions or SSMs which led to an increase in flaring.
NM	25	350250060	VERSADO GAS PROCESSORS, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT] AI 609	241	150	-38%	There was less AGI well downtime that resulted in less acid gas flaring at Eunice Gas Plant.
NM	25	350250004	Frontier Field Services/Maljamar Gas Plant al 565	36	72	100%	Malfunctions during the year directly tied to the Acid Gas Injection/ Compression system which of course yields extremely high SO ₂ due to the high H ₂ S concentration
NM	45	350450902	Public Service Co of New Mexico/San Juan Generating Station AI 1421	936	604	-35%	The decrease in emissions is due to less activity
NM	25	350250061	Versado Gas Processors, LLC / Monument Plant [Old name(s): TARGA MIDSTREAM SERVICES LP, WARREN PETROLEUM/MONUMENT PLANT]	89	45	-49%	The decrease in emissions is due to less activity
UT	27	10327	Intermountain Power Service Corporation -- Intermountain Generation Station	2,415	1667	-31%	There are two main factors contributing to the changes at the facility. The load profile has changed. For years, IPP was a base loaded facility. This is no longer the case. IPP is now being utilized at lower loads and ramping between load levels. IPP is also receiving coal from new locations. The new sources have different coal quality than we have seen in the past.
WY	5	F030139	Black Hills Corporation - Wygen 1	265	389	47%	Our coal quality is changing slightly as the Wyodak Mine starts to mine in their new pit (Western Expansion). The coal in this area has a slightly higher sulfur content and the mine is no longer removing the parting between the two major coal seams as they did in the Clovis Pit. The mine hopes to have more stable sulfur content in 2023/2024 as they operate in the new pit and stabilize their in-pit blending process.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2021 SO ₂ Emissions (tons)	Reported 2022 SO ₂ Emissions (tons)	% Change	Description Change > ±20% 2021 to 2022
WY	5	F030139	Black Hills Corporation - Wygen III	163	223	37%	Our coal quality is changing slightly as the Wyodak Mine starts to mine in their new pit (Western Expansion). The coal in this area has a slightly higher sulfur content and the mine is no longer removing the parting between the two major coal seams as they did in the Clovis Pit. The mine hopes to have more stable sulfur content in 2023/2024 as they operate in the new pit and stabilize their in-pit blending process.
WY	13	F000532	Contango Resources LLC -- Lost Cabin Gas Plant	2,093	1482	-29%	The 2022 Train 3 Flare (FLR002) emissions decreased by 110% from 2021. Flaring from Bighorn wells prior to the startup and difficulties during startup contributed significantly to the 2021 flaring emissions. 2022 sulfur tank emissions decreased by 40% from 2021. INC004 emissions decreased by 26% from 2021. Used lower emission factor in 2022
WY	41	F000191	Hilcorp Energy Company -- Carter Creek Gas Plant	37	152	313%	The 2022 SO ₂ emissions reflect a 313.13% increase as the Plant experienced an Unavoidable Equipment Malfunction event that spanned over several days, which was documented with the WDEQ, in December 2022.
WY	5	F030139	Cheyenne Light Fuel and Power Company – Wygen II	125	195	55%	Our coal quality is changing slightly as the Wyodak Mine starts to mine in their new pit (Western Expansion). The coal in this area has a slightly higher sulfur content and the mine is no longer removing the parting between the two major coal seams as they did in the Clovis Pit. The mine hopes to have more stable sulfur content in 2023/2024
WY	37	F000349	Genesis Alkali Wyoming LP -- Westvaco Facility	1,685	2051	22%	Slightly higher coal boiler hours but higher sulfur content coal was the main contributor.
WY	23	F000329	Exxon Mobil Corporation -- Labarge Black Canyon Dehydration Facility	24	63	165%	Major SO ₂ contributing events for BC in 2022 were on August 6th through August 8th. The highest volume event occurred on August 8th, 2022, when a failed O-ring at the facility led us to shut down and de-inventory to make repairs. This single event accounted for 48.82 tons of SO ₂ which is 78% of the 62.7 tons of SO ₂ reported via the Black Canyon SO ₂ Emissions Inventory. This unavoidable equipment malfunction caused most of the piping infrastructure to depressurize which led to elevated SO ₂ emissions.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2021 SO ₂ Emissions (tons)	Reported 2022 SO ₂ Emissions (tons)	% Change	Description Change > ±20% 2021 to 2022
WY	23	F000327	Exxon Mobil Corporation -- Shute Creek Treating Facility	1,305	1911	46%	Major SO ₂ contributing events for the SCF were due to a variety of equipment malfunctions mainly at the end of March, end of May, middle of August and end of December. The highest volume event in 2022 occurred on March 29th through April 1st due to the loss of instrument air which caused a total-plant shut down and resulted in 846.43
WY	1	F000587	Mountain Cement Company -- Laramie Cement Plant	97	156	61%	Increases in SO ₂ were due to variations in shale sulfur content and kiln conditions.
WY	25	F000531	HF Sinclair Casper Refining LLC -- Casper Refinery	134	29	-79%	Prior years AP 42 was used rather than CEM data.
WY	1	F000832	University of Wyoming - Heat Plant	53	82	55%	SO ₂ emissions in 2022 were higher due to a scheduled increase of coal consumption.

6.2 Part 75 Data

Federal Acid Rain Program emissions monitoring data (required by 40 CFR Part 75) were used to check reported power plant emissions.

Sources in the region subject to Part 75 emitted 70% of the region's reported emissions in 2022. We compared Acid Rain Program power plant emission data from EPA's Clean Air Markets Program Data website to plant totals reported by each state. The SIPs require the use of Part 75 methods for Part 75 sources. The reported emissions matched EPA's emission data except for three sources. The sources whose reported emissions did not match EPA's data are in Table 4. The difference between the Acid Rain Program data and reported emissions for this report for sources in Wyoming is due to emissions factors required by Wyoming Air Quality Standards and Regulations Chapter 14 Section 3 (d).

Table 4. Reported facility emissions that do not match information in the Acid Rain Database

State	Facility Name	Facility ID (ORISPL)	Year	2022 Acid Rain Database Emissions (tons SO ₂)	2022 Reported Emissions (tons SO ₂)
WY	Jim Bridger	8066	2022	7,627	7,627
WY	Naughton	4162	2022	1,426	1,426
WY	Laramie River	6204	2022	6,859	8,821

7.0 Milestone Determination

The Section 309 regional 2018 milestone is 141,849 tons SO₂. The 2022 adjusted emissions are 59,364 tons SO₂; therefore, the participating states met the 141,849 tons SO₂ milestone.

8.0 Public Comments

New Mexico, Albuquerque-Bernalillo, Utah, and Wyoming each published a draft of this report for public review and comment. The draft was also available on the WESTAR-WRAP website. No public comments were submitted.

Appendix A

Table A-1
2022 Reported and Adjusted Emissions for Sources Subject to
Section 309 -- Regional Haze Rule

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2022 SO2 Emissions (tons)	Adjusted 2022 SO2 Emissions (tons)	2022 General New Monitoring Calculation Method Adjustment (tons)
ABQ	1	3500100008		GCC Rio Grande Inc. - Portland Cement Manufacturer	3241	327310	99	99	0
NM	15	350150024		Agave Energy Co./Agave Dagger Draw Gas Plant AI211	1311	21112	926	926	0
NM	15	350150002		Frontier Field Services /Empire Abo Plant [Old name:Arco Permian/Empire Abo Plant; BP America Production] AI 191	1321	21113	142	142	0
NM	15	350150011		DCP Midstream/Artesia Gas Plant	1321	211112	21	21	0
NM	25	350250035		DCP Midstream/Linam Ranch Gas Plant [Old name:GPM GAS/LINAM RANCH GAS PLANT]	1321	21113	36	36	0
NM	25	350250060	609	VERSADO GAS PROCESSORS, LP/Eunice Gas Plant [Old name:WARREN PETROLEUM/EUNICE GAS PLANT] AI 609	1321	21113	150	150	0
NM	25	350250004		Frontier Field Services/Maljamar Gas Plant al 565	1321	21113	72	72	0
NM	15	350150010		Navajo Refining Co/Artesia Refinery AI 198	2911	32411	42	42	0
NM	45	350450902	2451	Public Service Co of New Mexico/San Juan Generating Station AI 1421	4911	221112	604	604	0

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2022 SO2 Emissions (tons)	Adjusted 2022 SO2 Emissions (tons)	2022 General New Monitoring Calculation Method Adjustment (tons)
NM	25	569		Regency Field Services/Jal #3 [Old Name Southern Union Gas] /Jal #3	1321	21113	72	72	0
NM	25	350250061		Versado Gas Processors, LLC / Monument Plant [Old name(s): TARGA MIDSTREAM SERVICES LP, WARREN PETROLEUM/MONUMENT PLANT]	1321	21113	45	45	0
NM	45	350450023		Western Refining Southwest Inc./Bloomfield Products Terminal [Old name:GIANT INDUSTRIES/BLOOMFIELD REF] AI 1156	2911	42471	0.2	0.2	0
NM	25	350250075		ConocoPhillips-Midland Office / MCA Tank Battery No. 2AI 624	1311	21113	113	113	0
NM	25	350250113		ConocoPhillips-Midland Office / East Vacuum Liquid Recovery and CO2 Plant	1311	21112	7	7	0
UT	29	10007		Holcim-Devil's Slide Plant	3241	327310	126	471	345
UT	37	10034		Paradox Midstream, LLC (was CCI Paradox Midstream LLC and Patara Midstream LLC and EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant	2911	211120	-	-	0
UT	7	10081	3644	PacifiCorp -- Carbon Power Plant	4911	221112		8,005	8,005
UT	7	10096		Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility	4911	221112	472	472	0
UT	11	10119		Chevron Products Co. -- Salt Lake Refinery	2911	324110	34	865	831
UT	11	10122		Big West Oil Company - Flying J Refinery	2911	324110	66	228	162

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2022 SO2 Emissions (tons)	Adjusted 2022 SO2 Emissions (tons)	2022 General New Monitoring Calculation Method Adjustment (tons)
UT	11	10123		Holly Refining and Marketing Co. -- Phillips Refinery	2911	324110	13	13	0
UT	15	10237	6165	PacifiCorp -- Hunter Power Plant	4911	221112	3,274	3,274	0
UT	15	10238	8069	PacifiCorp -- Huntington Power Plant	4911	221112	2,518	2,518	0
UT	27	10311		Materion Natural resources - Delta Mill (was Brush Resources)	1099	212299	1	0	-1
UT	27	10313		Graymont Western US Inc. -- Cricket Mountain Plant	1422	212312	17	17	0
UT	27	10327	6481	Intermountain Power Service Corporation -- Intermountain Generation Station	4911	221112	1,667	1,667	0
UT	35	10335		Tesoro West Coast -- Salt Lake City Refinery	2911	324110	16	16	0
UT	35	10346		Kennecott Utah Copper Corp. -- Smelter & Refinery	3331	331410	642	642	0
UT	35	10572		Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment	1021	212230	0	0	0
UT	43	10676		Utelite Corporation -- Shale processing	3295	212325	106	106	0
UT	49	10790		Brigham Young University -- Main Campus	8221	611310	0	0	0
WY	11	F021196		American Colloid Mineral Co -- Colony East & West Plants	1459	212325	10	10	0
WY	5	F020818	56609	Basin Electric -- Dry Fork Station	4911	22112	845	845	0

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2022 SO2 Emissions (tons)	Adjusted 2022 SO2 Emissions (tons)	2022 General New Monitoring Calculation Method Adjustment (tons)
WY	31	F000085	6204	Basin Electric -- Laramie River Station	4911	221112	8,821	8,821	0
WY	5	F030139	7504	Black Hills Corporation - Neil Simpson II	4911	22112	417	417	0
WY	5	F030139	55479	Black Hills Corporation - Wygen 1	4911	22112	389	389	0
WY	5	F030139	56596	Black Hills Corporation - Wygen III	4911	221112	223	223	0
WY	13	F022325		Contango Resources LLC -- Bighorn 10-5 (Formerly Bighorn Wells)	1300	21111	0	0	0
WY	13	F000532		Contango Resources LLC -- Lost Cabin Gas Plant	1311	211111	1,482	1,482	0
WY	41	F000191		Hilcorp Energy Company -- Carter Creek Gas Plant	1311	211111	152	152	0
WY	41	W000001		Northshore Exploration & Production -- Whitney Canyon/Carter Creek Wellfield	1300	21111	1	1	0
WY	5	F030139	56319	Cheyenne Light Fuel and Power Company -- Wygen II	4911	22112	195	195	0
WY	37	F000349		Genesis Alkali Wyoming LP -- Westvaco Facility	2812	327999	2,051	2,051	0
WY	13	F000058		Denbury Onshore LLC -- Beaver Creek Compressor Station	1311	211111	0.2	0.2	0
WY	23	F000329		Exxon Mobil Corporation -- Labarge Black Canyon Dehydration Facility	1300	21111	63	63	0
WY	23	F000327		Exxon Mobil Corporation -- Shute Creek Treating Facility	1311	211111	1,911	1,911	0

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2022 SO2 Emissions (tons)	Adjusted 2022 SO2 Emissions (tons)	2022 General New Monitoring Calculation Method Adjustment (tons)
WY	21	F030136		Holly Frontier Cheyenne Refining-- Cheyenne Renewable Diesel Facility	2911	32411	2	2	0
WY	29	F000539		Merit Energy Company -- Oregon Basin Gas Plant	1321	211112	263	263	0
WY	41	W000003		Merit Energy Company -- Whitney Canyon WellField	1300	21111	-	-	0
WY	41	F000053		North Shore Exploration & Production -- Whitney Facility	1311	211111	1	1	0
WY	1	F000587		Mountain Cement Company -- Laramie Cement Plant	3241	23571	156	156	0
WY	37	F000584		P4 Production, L.L.C. -- Rock Springs Coal Calcining Plant	3312	331111	754	754	0
WY	9	F000644	4158	Pacificorp - Dave Johnston Plant	4911	221112	7,292	7,292	0
WY	37	F000645	8066	Pacificorp -- Jim Bridger Plant	4911	221112	7,607	7,607	0
WY	23	F000647	4162	Pacificorp -- Naughton Plant	4911	221112	1,427	1,427	0
WY	5	F000646	6101	Pacificorp -- Wyodak Plant	4911	221112	1,758	1,758	0
WY	37	F000746		Simplot Phosphates LLC -- Rock Springs Fertilizer Complex	2874	325312	584	584	0
WY	7	F000758		HF Sinclair Parco Refining LLC -- HF Sinclair Parco Refining LLC	2911	32411	93	93	0
WY	25	F000531		HF Sinclair Casper Refining LLC -- Casper Refinery	2911	32411	29	29	0

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2022 SO2 Emissions (tons)	Adjusted 2022 SO2 Emissions (tons)	2022 General New Monitoring Calculation Method Adjustment (tons)
WY	37	F000765		American Soda LLC -- Green River Soda Ash Plant	1474	325181	47	47	0
WY	37	F000361		TATA Chemicals (Soda Ash) Partners-- Green River Works (formerly General Chemical)	1474	327999	1,579	1,579	0
WY	37	F000803		Genesis Alkali Wyoming, LP -- Granger Soda Ash Plant	1474	212391	0	0	0
WY	1	F000832		University of Wyoming - Heat Plant	8221	61131	82	82	0
WY	29	F000060		Contango Resources, LLC -- Elk Basin Gas Plant	1311	211111	467	467	0
WY	56043	F026405		Contango Resources, LLC -- Worland Gas Plant (WMS)	1321	211112	34	34	0
WY	45	F000980		Wyoming Refining Company -- Newcastle Refinery	2911	32411	4	4	0

Appendix B

Table B-1
Sources Added to the SO₂ Emissions and Milestone Report Inventory

State	County FIP Code	State Facility ID	Facility Name	Report Year of Change
UT	043	10676	Utelite Corporation -- Shale processing	2003
WY	011	0002	American Colloid Mineral Company -- East Colony	2003
WY	011	0003	American Colloid Mineral Company -- West Colony	2003
WY	037	0014	Chevron USA (previously owned by Anadarko E&P Company LP) -- Table Rock Gas Plant	2003
WY	005	0146	Black Hills Corporation -- Wygen 1	2003
WY	041	0002	BP America Production Company -- Whitney Canyon Well Field	2003
WY	013	0009	Burlington Resources -- Bighorn Wells	2003
WY	037	0177	Chevron USA -- Table Rock Field	2003
WY	041	0008	Chevron USA -- Whitney Canyon/Carter Creek Well field	2003
WY	013	0008	Devon Energy Corp. -- Beaver Creek Gas Plant	2003
WY	035	0001	Exxon Mobil Corporation -- Labarge Black Canyon Facility (also identified as Black Canyon Dehy Facility)	2003
WY	013	0007	Devon Energy Corp. -- Beaver Creek Gas Field	2004
WY	005	0225	Cheyenne Light, Fuel and Power (a subsidiary of Black Hills Corporation) -- Wygen II	2008
WY	005	0281	Black Hills Corporation -- Wygen III	2010
WY	005	0045	Basin Electric -- Dry Fork Station	2011
NM	025	350250075	ConocoPhillips-Midland Office / MCA Tank Battery No. 2	2013
NM	025	350250113	ConocoPhillips-Midland Office / East Vacuum Liquid Recovery and CO2 Plant	2013
ABQ* NM	001	3500100008	GCC Rio Grande Inc. - Portland Cement Manufacturer	2018

* ABQ NM means Albuquerque-Bernalillo County.

Table B-2
Sources Removed from the SO₂ Emissions and Milestone Report Inventory

State	County FIP Code	State Facility ID	Facility Name	1998 Baseline Emissions (tons/year)	Reason for Change	Report Year of Change
WY	043	0001	Western Sugar Company -- Worland	154	Emissions did not meet 100 TPY program criteria.	2003
WY	017	0006	KCS Mountain Resources -- Golden Eagle	942	Emissions did not meet 100 TPY program criteria.	2003
WY	003	0017	KCS Mountain Resources -- Ainsworth	845	Closed since 2000.	2003
WY	017	0002	Marathon Oil -- Mill Iron	260	Emissions did not meet 100 TPY program criteria.	2003
UT	049	10796	Geneva Steel -- Steel Manufacturing Facility	881	Plant is shut down and disassembled.	2004
WY	023	0001	Astaris Production -- Coking Plant	1,454	Plant is permanently shut down and dismantled.	2004
ABQ* NM	001	00145	Southside Water Reclamation Plant	120	Not subject to program after baseline revisions. **	2008
NM	023	350230003	Phelps Dodge Hidalgo Smelter	16,000	Facility is permanently closed.	2008
NM	017	350170001	Phelps Dodge Hurley Smelter/Concentrator	22,000	Facility is permanently closed.	2008
WY	003	00012	Big Horn Gas Processing -- Bighorn/Byron Gas Plant	605	Facility is permanently closed and dismantled.	2011

* ABQ NM means Albuquerque-Bernalillo County.

** 1998 baseline emissions were based on the facilities' potential to emit (PTE), and not actual emissions. Actual annual emissions have always been below 100 tons. Once the year 2006 baseline became effective, this facility was removed from the inventory.