2014 Regional SO_2 Emissions and Milestone Report

March XX, 2016

Wyoming

Joe Smith
Wyoming Department of Environmental Quality
Air Quality Division
Herschler Building, 2-East
122 West 25th Street
Cheyenne, Wyoming 82002
Phone: 307-777-6126
Fax: 307-777-5616
joe.smith@wyo.gov

Utah

Jay Baker
Utah Department of Environmental Quality
Division of Air Quality
195 North 1950 West
Salt Lake City, UT 84114-4820
Phone: 801-536-4015
Fax: 801-536-0085
jbaker@utah.gov

New Mexico

Mike Schneider
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505
Phone: 505-476-4323
Fax: 505-476-4375
mike.schneider@state.nm.us

Albuquerque-Bernalillo County

Andrew Daffern
City of Albuquerque
Environmental Health Department
Air Quality Program
P.O. Box 1293
Albuquerque, NM 87103
Phone: 505-768-2601
Fax: 505-768-2617
adaffern@cabq.gov

2014 Regional SO_2 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 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 SO_2 Milestone and Backstop Trading Program. The Western Regional Air Partnership (WRAP) is assisting these states and city with the implementation and management of the regional emission reduction program. As used in this document, "Section 309 states" means the states of New Mexico, Utah, and 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, the Section 309 states must submit an annual Regional Sulfur Dioxide (SO_2) 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.

The regional milestone for 2014 is 170,868 tons. The states averaged the 2012, 2013, and 2014 adjusted emissions as required by Section 309 of the CAA. We compared this average to the 2014 milestone to determine whether the states met 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 91,381 tons of SO_2 emissions for the calendar year 2014. The total emissions increased to 92,553 tons of SO_2 after making adjustments to account for changes in monitoring and calculation methods. The adjustments result in an additional 1,172 tons of SO_2 emissions. The adjusted emissions values for 2012 and 2013 were 96,430 and 100,193 tons, respectively. The average of 2012, 2013, and 2014 adjusted emissions is 96,392 tons.

Based on the adjusted milestone and emissions data, the average of 2012, 2013, and 2014 emissions is about 44% below the 2014 three-state regional milestone.

Based on this average annual emissions estimate, the Section 309 states determined that emissions in 2014 were below the regional SO_2 milestone for 2014. 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 2013 to 2014 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 2014 Regional Milestones and Emissions for Section 309 Participating States*

2014 Sulfur Dioxide Milestones	
Regional 2014 Milestone**	170,868 tons
Adjusted 2014 Milestone	170,868 tons
2014 Sulfur Dioxide Emissions	
Reported 2014 Emissions	91,381 tons
Adjustments***	
Emission Monitoring and Calculation Methods	1,172 tons
Adjusted 2014 Emissions (rounded number)	92,553 tons
Average Sulfur Dioxide Emissions (2012, 2013, &2014)	
Adjusted 2014 Emissions	92,553 tons
Adjusted 2013 Emissions	100,193 tons
Adjusted 2012 Emissions	96,430 tons
Average of, 2012, 2013, & 2014 Adjusted Emissions	96,392 tons
Comparison of Emissions to Milestone	
Average of 2012, 2013, & 2014 Adjusted Emissions	96,392 tons
Adjusted Three-State 2014 Milestone	170,868 tons
Difference (Negative Value = Emissions < Milestone)	-74,476 tons
2012 – 2014 Emissions Average as Percent of 2014 Milestone	44%

* Section 309 participating states means the states of New Mexico, Utah, Wyoming, and Albuquerque-Bernalillo County.
** See the Regional Milestones section of each state's 309 plan.
*** See the Annual Emissions Report section of each state's 309 plan.

2014 Regional SO_2 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 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 exercised this option by submitting plans to EPA by December 1, 2003. In October 2006, when EPA modified Section 309, Oregon elected to cease participation in the SO_2 Milestone and Backstop Trading Program by not resubmitting a Section 309 State Implementation Plan (SIP). 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 city have been tracking emissions under the pre-trigger requirements of the SO_2 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 SO_2 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 twelfth 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 2014. Based on the first eleven years, 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 Environmental Protection Agency (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 eliminate human-caused visibility impairment in national parks and wilderness areas across the country. It contains strategies to improve visibility over the next 60 years, 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 SO_2 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 SO_2 related elements of the Section 309 process for the participating Section 309 states:

1. Section 309(d)(4)(i) requires SO_2 milestones in the SIP and includes provisions for making adjustments to 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 SO_2 emissions in order to ensure the SO_2 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 also must provide for assessments of the state's progress in 2013 and 2018.

This report responds to Item 2, above, and provides the annual report that compares the 2014 emissions against the milestones for the states and city that have submitted Section 309 SIPs to EPA.

What Elements Must the Regional SO_2 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 SO_2 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, 2012, 2013, and 2014 emissions are averaged.

How Is Compliance with the SO_2 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 SO_2 milestone is met or exceeded that year. Each state submits the draft determination for public review and comment during the first part of 2016, culminating in a final report sent to EPA by March 31, 2016.

1.2 Report Organization

This report presents the regional SO_2 emissions and milestone information required by the 309 SIPs for the Section 309 states. The report is divided into the following sections, including two appendices:

- Reported SO_2 Emissions in 2014;
- Emissions Adjustments Related to Monitoring Methodology;
- Three-Year Average Emissions;
- Enforcement Milestone Adjustments;
- Quality Assurance (Including Source Change Information);
- Milestone Determination;
- Appendix A -- Facility Emissions and Emissions Adjustments; and
- Appendix B -- Changes to SO_2 Emissions and Milestone Source Inventory.

2.0 Reported SO_2 Emissions in 2014

The Section 309 SIPs require all stationary sources with reported emissions of 100 tons or more per year in 2000 or any subsequent year to report annual SO_2 emissions. Albuquerque-Bernalillo County reported that they have no emissions sources over 100 tons per year. Table 1

summarizes the annual reported emissions from applicable sources in each state. The 2014 reported SO_2 emissions for each applicable source are in Appendix A, Table A-1.

Table 1. Reported 2014 SO2 Emissions by State

State	Reported 2014 SO_2 Emissions (tons/year)
New Mexico	12,420
Utah	25,054
Wyoming	53,906
TOTAL	91,381

3.0 Emissions Adjustments Related to Monitoring Methodology

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 these adjustments, is an increase of 1,172 tons from the reported 2014 emissions. Table 2 summarizes the emissions adjustments made for three facilities.

Table 2. Adjustments for Changes in Monitoring Methodology

State	Source	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	Monitoring Methodology Adjustment (tons)	Description
UT	Chevron Products Co. – Salt Lake Refinery	24	731	707	Increase in Adjusted 2014 SO2 Emissions is due to a correction in the calculation of Adjusted 2014 SO2 Emissions. The formula used to calculate SO2 was corrected and updated.
UT	Big West Oil-Flying J Refinery	57	212	155	Now using CEM data
UT	Holcim – Devil's Slide Plant	128	438	310	Facility changed emissions calculation methodology from stack tests to CEM

4.0 Three-Year Average Emissions (2012, 2013, and 2014)

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. The average of the three years' emissions from 2012 to 2014 is 96,796 tons. Table 3 shows the adjusted emissions for each year and three-year average emissions. The following report sections describe the adjusted milestone determination.

Table 3. Average Sulfur Dioxide Emissions (2012, 2013, & 2014)

Year	Adjusted SO_2 Emissions (tons/year)
2012	96,430
2013	100,193
2014	92,553
Three-Year Average (2012, 2013, 2014)	96,392

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 action related milestone adjustments reported for 2014.

6.0 Quality Assurance

The states provided 2014 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 SO_2 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 ± 20% from the previous year.

Table 4 provides explanations for the emissions variations from applicable sources from 2013 – 2014 that are greater than 20%. Plants with variations greater than 20%, but reported emissions of less than 20 tons in both 2013 and 2014, are not included in Table 4. Information on these plants is provided in Appendix A.

Appendix B provides a list of all sources added or removed from the program inventory in previous reporting years. The states did not add any sources since the 2012 report.

Table 4. Sources with an Emissions Change of > ±20% from the Previous Year

State	County FIPS	State Facility Identifier	Plant Name	Reported 2013 SO_2 Emissions (tons)	Reported 2014 SO_2 Emissions (tons)	Description Change > ±20% 2013 to 2014
NM	15	350150024	Agave Energy Co./Agave Dagger Draw Gas Plant	14	256	Facility is allowed to operate under 3 scenarios. #1 sweet gas, #2 and #3 - sour gas. From 2013 to 2014 the facility shifted from operating mostly #1 and/or #2 scenarios to #3 scenario. This MAY account for the higher SO2 emissions.
NM	15	350150011	DCP Midstream/Artesia Gas Plant	284	400	Experienced several more plant upsets in 2014 than in 2013, i.e. power outages and equipment failure. The emissions were mostly excess.
NM	25	350250035	DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]	648	192	In 2014 the acid gas injection system operated with greater reliability.
NM	25	350250060	VERSADO GAS PROCESSORS, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT]	184	105	The 43% SO2 reduction from calendar year 2013 to 2014 contributes mainly from the decrease in excess emissions from the main flare (F-01).
NM	25	350250004	Frontier Field Services/Maljamar Gas Plant	2,244	177	Reduction in the frequency of acid gas flaring events
NM	31	350310008	Western Refining Southwest Inc.-Gallup Refinery {Old names: Western Refinery/Ciniza Refinery (Gallup) and GIANT REFINING/CINIZA]	34	43	Our SO2 emissions from the heaters and boilers are calculated using H2S concentration in our fuel gas. RY2013 H2S ppm in fuel gas was 9 ppm. For RY2014, our H2S ppm in the fuel gas was 13 ppm, which is well within our permit limits; however, the increase in H2S ppm caused an increase in SO2 emissions from our heaters and boilers.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2013 SO_2 Emissions (tons)	Reported 2014 SO_2 Emissions (tons)	Description Change > ±20% 2013 to 2014
NM	15	350150008	OXY USA WTP Limited Partnership - Indian Basin Gas Plant [Old Name - Marathon Oil/Indian Basin Gas Plant]	44	74	The increase in emissions was a result of emissions occurring during plan turnarounds.
NM	25	350250008	Regency Field Services/Jal #3 [Old Name Southern Union Gas] /Jal #3	1,002	798	Replaced Turbine 3 with three new compressors, which increased the plant's efficiency.
NM	25	350250063	Versado Gas Processors, LLC/Saunders Plant [Old name(s): TARGA MIDSTREAM SERVICES, LP, WARREN PETROLEUM/SAUNDERS PLANT]	369	468	Plant was shut down for 117 days in 2013 vs 22 days in 2014. The additional plant downtime may account for the lower SO2 emissions in 2013.
NM	31	350310032	Tri-State Gen & Transmission/Escalante Station	951	732	Consumed less coal in 2014.
NM	45	350450247	CCI San Juan, LLC /San Juan River Gas Plant	58	91	Shut down for a plant turnaround accounted for the bulk of emissions in 2014. As the company is under new ownership in 2014, they were unable to provide further details in comparing with 2013.
NM	25	350250113	ConocoPhillips-Midland Office / East Vacuum Liquid Recovery and CO2 Plant	156	99	The reduction in SO2 from 156 to 99 tpy was primarily due to less flaring from 181,981 total MCF flared in 2013 down to 116,717 total MCF flared in 2014. The replacement of gas driven compressors with electric compressors continued to contribute to reduced flaring due to higher efficiency and runtime of the electric compressors. Also the H2S concentration was less (1.02% in 2013 and 0.75% in 2014). The H2S varies but stays around 1% or slightly less
UT	11	10122	Big West Oil Company - Flying J Refinery	45	57	Increase due to Breakdown Emissions.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2013 SO_2 Emissions (tons)	Reported 2014 SO_2 Emissions (tons)	Description Change > ±20% 2013 to 2014
UT	27	10313	Graymont Western US Inc. -- Cricket Mountain Plant	52	33	Decrease in SO2 emissions due to decrease in throughput of Lime.
UT	29	10007	Holcim-Devil's Slide Plant	172	128	Decrease in SO2 emissions according to CEM readings.
UT	7	10081	PacifiCorp -- Carbon Power Plant	7,702	9,241	Increase in SOx emissions due to increase in coal consumption and higher weight % of sulfur in coal.
UT	15	10237	PacifiCorp -- Hunter Power Plant	5,055	3,939	Decrease in SOx emissions due to decrease in coal consumption and lower weight % of sulfur in coal.
UT	37	10034	CCI Paradox Midstream LLC (was Patara Midstream LLC, and was EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant	5	500	Increased due to upset on acid gas injection well that was diverted to the flare.
WY	11	2	American Colloid Mineral Co -- East Colony	96	155	Increased run times, higher overall tonnage of coal , and increase in sulfur content in coal for BH-08, DC-1, DC-2, and RD-1
WY	11	3	American Colloid Mineral Co -- West Colony	0	155	Increased run times, higher overall tonnage of coal , and increase in sulfur content in coal for BH-08, DC-1, DC-2, and RD-1
WY	5	2	Black Hills Corporation - Neil Simpson I	879	50	Decrease is due to a unit shutdown and decommissioning
WY	5	63	Black Hills Corporation - Neil Simpson II	511	357	Startup fuel was converted from oil to natural gas. This decrease is a return to 2012 levels

State	County FIPS	State Facility Identifier	Plant Name	Reported 2013 SO_2 Emissions (tons)	Reported 2014 SO_2 Emissions (tons)	Description Change > ±20% 2013 to 2014
WY	5	146	Black Hills Corporation - Wygen 1	566	348	Return to 2012 levels. 2013 increase due to an abnormal amount of 40CFR75 SO2 monitor downtime, which resulted in additional data. Additionally, there was a 2.8% increase in coal consumption and a 7.7% increase in the sulfur content of the coal consumed.
WY	13	28	Burlington Resources -- Lost Cabin Gas Plant	1,998	3,186	Series of outages that occurred in 2014 on the train 3 process train
WY	41	9	Chevron USA -- Carter Creek Gas Plant	596	344	2014 SO2 emissions were 42% lower than 2013 due to the fact that 2013 was a turnaround year resulting in higher than normal SO2 emissions: however 2014 was higher in SO2 emissions than 2012 due to multiple plant upsets
WY	37	14	Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP)	22	5	Plant shut down in April of 2014
WY	13	8	Devon Gas Services, L.P. -- Beaver Creek Gas Plant	49	18	Less Flaring in 2014
WY	29	12	Encore Operating LP -- Elk Basin Gas Plant	824	1,262	3 major flaring events in 2014 due to a fire in Reactor 1 and replacement of piping and spools.
WY	23	1	Exxon Mobil Corporation -- Labarge Black Canyon Facility	139	21	Higher SO2 emissions from flaring in 2013 due to plant TAR/shutdown in Sept/Oct of 2013
WY	23	13	Exxon Mobil Corporation -- Shute Creek	885	362	Higher SO2 emissions from flaring in 2013 due to plant TAR/shutdown in Sept/Oct of 2013
WY	21	1	Frontier Oil & Refining Company -- Cheyenne Refinery	267	388	upset events at the coker unit and the sulfur incinerator were much more frequent in 2014

State	County FIPS	State Facility Identifier	Plant Name	Reported 2013 SO_2 Emissions (tons)	Reported 2014 SO_2 Emissions (tons)	Description Change > ±20% 2013 to 2014
WY	29	0010	Marathon Oil Co -- Oregon Basin Wellfield	40	101	Field Flare SO2 emissions increased by 251% due to a maintenance turnaround
WY	37	8	Merit Energy Company - Brady Gas Plant (formerly Anadarko E&P Co LP)	316	0	The facility was shut down for most of 2014, resulting in fewer operating hours.
WY	7	1	Sinclair Oil Company -- Sinclair Refinery	154	71	Less Gas was flared in 2014
WY	37	5	Solvay Chemicals -- Soda Ash Plant (Green River Facility)	42	29	Average 0.001 lb./MMBTU SO2 in 2014 in comparison to an average of 0.018 lb./MMBTU SO2 in 2013
WY	45	1	Wyoming Refining -- Newcastle Refinery	263	69	Emissions from most heaters were lower due to firing rates and fuel H2S content. Boiler #3 is out of service. SO2 emissions are controlled by SO2 reducing catalyst agent and by a wet gas scrubber

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 71% of the region's reported emissions in 2014. We compared Acid Rain Program power plant emission data from EPA's Data and Maps 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[a].

[a] The reported emissions for Pacificorp's Naughton Plant in WY contain an extra 26 tons of SO_2 emissions due to wastewater ponds that are not included in the acid rain data. The reported emissions for the San Juan Generating Station in NM contain an extra 20 tons of SO_2 emissions due to emission points that are not included in the acid rain data.

7.0 Preliminary Milestone Determination

The Section 309 regional 2014 milestone is 170,868 tons SO_2, which represents the average regional emissions milestone for the years 2012, 2013, and 2014. The average of 2012, 2013, and 2014 adjusted emissions was determined to be 96,392 tons SO_2. Therefore, the participating states have met the 170,868 tons SO_2 milestone.

Appendix A

Table A-1
2014 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 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
NM	15	350150024		Agave Energy Co./Agave Dagger Draw Gas Plant	1311	211111	256	256	
NM	15	350150002		Frontier Field Services /Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant; BP America Production]	1321	211112	472	472	
NM	15	350150011		DCP Midstream/Artesia Gas Plant	1321	211112	400	400	
NM	25	350250044		DCP Midstream/Eunice Gas Plant [Old name: GPM GAS EUNICE GAS PLANT]	1321	211112	1,547	1,547	
NM	25	350250035		DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]	1321	211112	192	192	
NM	15	350150138		Duke -- Magnum/Pan Energy -- Burton Flats	1321	211112	0	0	
NM	15	350150285		Duke Energy/Dagger Draw Gas Plant	1321	211112	0	0	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
NM	25	350250060		VERSADO GAS PROCESSORS, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT]	1321	211112	105	105	
NM	25	350250004		Frontier Field Services/Maljamar Gas Plant	1321	211112	177	177	
NM	31	350310008		Western Refining Southwest Inc-Gallup Refinery {Old names: Western Refinery/Ciniza Refinery (Gallup) and GIANT REFINING/CINIZA]	2911	32411	43	43	
NM	25	350250007		Davis Gas Processing/Denton Plant	1311	211111	1,009	1,009	
NM	15	350150008		OXY USA WTP Limited Partnership - Indian Basin Gas Plant [Old Name - Marathon Oil/Indian Basin Gas Plant]	1321	211112	74	74	
NM	15	350150010		Navajo Refining Co/Artesia Refinery	2911	32411	31	31	
NM	45	350450902	2451	Public Service Co of New Mexico/San Juan Generating Station	4911	221112	4,989	4,989	
NM	7	350070001		Raton Pub. Service/Raton Power Plant	4911	221112	0	0	
NM	25	350250008		Regency Field Services/Jal #3 [Old Name Southern Union Gas] /Jal #3	1321	211112	798	798	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
NM	25	350250051		Versado Gas Processors, LP/Eunice South Gas Plant	1321	211112	0	0	
NM	25	350250061		Versado Gas Processors, LLC / Monument Plant [Old name(s):TARGA MIDSTREAM SERVICES LP, WARREN PETROLEUM/MONUMENT PLANT]	1321	211112	716	716	
NM	25	350250063		Versado Gas Processors, LLC/Saunders Plant [Old name(s): TARGA MIDSTREAM SERVICES, LP, WARREN PETROLEUM/SAUNDERS PLANT]	1321	211112	468	468	
NM	31	350310032	87	Tri-State Gen & Transmission/Escalante Station	4911	221112	732	732	
NM	45	350450247		CCI San Juan, LLC /San Juan River Gas Plant	1321	211112	91	91	
NM	45	350450023		Western Refining Southwest Inc./Bloomfield Products Terminal [Old name: GIANT INDUSTRIES/BLOOMFIELD REF]	2911	32411	0	0	
NM	25	350250075		ConocoPhillips-Midland Office / MCA Tank Battery No. 2	1311	211111	223	223	
NM	25	350250113		ConocoPhillips-Midland Office / East Vacuum Liquid Recovery and CO2 Plant	1311	211111	99	99	
UT	49	10790		Brigham Young University -- Main Campus	8221	611310	118	118	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
UT	11	10119		Chevron Products Co. -- Salt Lake Refinery	2911	324110	24	731	707
UT	11	10122		Big West Oil Company - Flying J Refinery	2911	324110	57	212	155
UT	27	10313		Graymont Western US Inc. -- Cricket Mountain Plant	1422	212312	33	33	
UT	29	10007		Holcim-Devil's Slide Plant	3241	327310	128	438	310
UT	11	10123		Holly Refining and Marketing Co. -- Phillips Refinery	2911	324110	102	102	
UT	27	10327	6481	Intermountain Power Service Corporation -- Intermountain Generation Station	4911	221112	4,369	4,369	
UT	35	10572		Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment	1021	212234	1,500	1,500	
UT	35	10346		Kennecott Utah Copper Corp. -- Smelter & Refinery	3331	331411	704	704	
UT	27	10311		Materion Natural resources - Delta Mill (was Brush Resources)	1099	212299	4	4	
UT	7	10081	3644	PacifiCorp -- Carbon Power Plant	4911	221112	9,241	9,241	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
UT	15	10237	6165	PacifiCorp -- Hunter Power Plant	4911	221112	3,939	3,939	
UT	15	10238	8069	PacifiCorp -- Huntington Power Plant	4911	221112	2,478	2,478	
UT	37	10034		CCI Paradox Midstream LLC (was Patara Midstream LLC, and was EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant	2911	211111	500	500	
UT	7	10096		Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility	4911	221112	1,054	1,054	
UT	35	10335		Tesoro West Coast -- Salt Lake City Refinery	2911	324110	708	708	
UT	43	10676		Utelite Corporation -- Shale processing	3295	212399	95	95	
WY	11	2		American Colloid Mineral Co -- East Colony	1459	212325	155	155	
WY	11	3		American Colloid Mineral Co -- West Colony	1459	212325	155	155	
WY	5	45		Basin Electric -- Dry Fork Station	4911	22112	884	884	
WY	31	1	6204	Basin Electric -- Laramie River Station	4911	221112	7,950	7,950	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
WY	3	12		Big Horn Gas Proc -- Big Horn/Byron Gas Plant	1311	22121			
WY	5	2	4150	Black Hills Corporation - Neil Simpson I	4911	22112	50	50	
WY	5	63	7504	Black Hills Corporation - Neil Simpson II	4911	22112	357	357	
WY	45	5	4151	Black Hills Corporation - Osage Plant	4911	22112	0	0	
WY	5	146	55479	Black Hills Corporation - Wygen 1	4911	22112	348	348	
WY	5	225		Cheyenne Light Fuel and Power Company – Wygen II	4911	22112	193	193	
WY	5	281		Black Hills Corporation - Wygen III	4911	221112	254	254	
WY	13	0009		Burlington Resources -- Bighorn Wells	1300	21111	2	2	
WY	13	28		Burlington Resources -- Lost Cabin Gas Plant	1311	211111	3,186	3,186	
WY	41	9		Chevron USA -- Carter Creek Gas Plant	1311	211111	344	344	
WY	37	0177		Chevron USA -- Table Rock Field	1300	21111	0	0	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
WY	37	14		Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP)	1321	211111	5	5	
WY	41	0008		Chevron USA -- Whitney Canyon/Carter Creek Wellfield	1300	21111	2	2	
WY	13	0007		Devon Energy Production Co., L.P. -- Beaver Creek Gas Field	1300	21111	0	0	
WY	13	8		Devon Gas Services, L.P. -- Beaver Creek Gas Plant	1311	211111	18	18	
WY	29	12		Encore Operating LP -- Elk Basin Gas Plant	1311	211111	1,262	1,262	
WY	23	1		Exxon Mobil Corporation -- Labarge Black Canyon Facility	1300	21111	21	21	
WY	23	13		Exxon Mobil Corporation -- Shute Creek	1311	211111	362	362	
WY	37	48		FMC Corp -- Green River Sodium Products (Westvaco facility)	2812	327999	2,911	2,911	
WY	37	49		FMC Wyoming Corporation -- Granger Soda Ash Plant	1474	212391	350	350	
WY	21	1		Frontier Oil & Refining Company -- Cheyenne Refinery	2911	32411	388	388	
WY	43	3		Hiland Partners, LLC -- Hiland Gas Plant	1321	48621			

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
WY	29	7		Marathon Oil Co -- Oregon Basin Gas Plant	1321	211112	189	189	
WY	29	0010		Marathon Oil Co -- Oregon Basin Wellfield	1300	21111	101	101	
WY	37	8		Merit Energy Company - Brady Gas Plant (formerly Anadarko E&P Co LP)	1321	211112	0	0	
WY	41	12		Merit Energy Company -- Whitney Facility	1311	211111	1	1	
WY	41	0002		Merit Energy Company -- Whitney Canyon WellField	1300	21111	0	0	
WY	1	2		Mountain Cement Company -- Laramie Plant	3241	23571	239	239	
WY	37	3		P4 Production, L.L.C. -- Rock Springs Coal Calcining Plant	3312	331111	754	754	
WY	9	1	4158	Pacificorp - Dave Johnston Plant	4911	221112	7,692	7,692	
WY	37	1002	8066	Pacificorp -- Jim Bridger Plant	4911	221112	10,725	10,725	
WY	23	4	4162	Pacificorp -- Naughton Plant	4911	221112	6,235	6,235	
WY	5	46	6101	Pacificorp -- Wyodak Plant	4911	221112	2,374	2,374	

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2014 SO_2 Emissions (tons)	Adjusted 2014 SO_2 Emissions (tons)	2014 General New Monitoring Calculation Method Adjustment (tons)
WY	37	22		Simplot Phosphates LLC -- Rock Springs Plant	2874	325312	1,154	1,154	
WY	7	1		Sinclair Oil Company -- Sinclair Refinery	2911	32411	71	71	
WY	25	5		Sinclair Wyoming Refining Company -- Casper Refinery	2911	32411	226	226	
WY	37	5		Solvay Chemicals -- Soda Ash Plant (Green River Facility)	1474	325181	29	29	
WY	37	2		TATA Chemicals (Soda Ash Partners)-- Green River Plant (formerly General Chemical)	1474	327999	4,511	4,511	
WY	15	1		The Western Sugar Cooperative -- Torrington Plant	2063	311313	170	170	
WY	1	5		University of Wyoming - Heat Plant	8221	61131	147	147	
WY	56043	397		Worland Gas Plant (WMS)	1321	211112	26	26	
WY	45	1		Wyoming Refining -- Newcastle Refinery	2911	32411	69	69	

Appendix B

Table B-1
Sources Added to the SO_2 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 Wellfield	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

Table B-2
Sources Removed from the SO_2 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	00008	GCC Rio Grande Cement	1,103	Not subject to program after baseline revisions.**	2008
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, these facilities were removed from the inventory.