



## 2012 Regional SO<sub>2</sub> Emissions and Milestone Report

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### Wyoming

Brian Bohlmann, P.E.  
Wyoming Department of Environmental  
Quality, Air Quality Division  
Herschler Building, 2-East  
122 West 25th Street  
Cheyenne, Wyoming 82002  
Phone: 307-777-6993  
Fax: 307-777-7682  
[brian.bohlmann@wyo.gov](mailto:brian.bohlmann@wyo.gov)

### Utah

Mark Berger  
Utah Department of Environmental Quality  
Division of Air Quality  
195 North 1950 West  
Salt Lake City, UT 84114-4820  
Phone: 801-536-0076  
Fax: 801-536-0085  
[mberger@utah.gov](mailto:mberger@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](mailto:mike.schneider@state.nm.us)

### Albuquerque-Bernalillo County

Andrew Daffern  
City of Albuquerque  
Environmental Health/Air Quality Division  
P.O. Box 1293  
Albuquerque, NM 87103  
Phone: 505-768-2601  
Fax: 505-768-2617  
[adaffern@cabq.gov](mailto:adaffern@cabq.gov)



## 2012 Regional SO<sub>2</sub> 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<sub>2</sub> 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.

As part of this program, the Section 309 states must submit an annual Regional Sulfur Dioxide (SO<sub>2</sub>) Emissions and Milestone Report that compares emissions to milestones. A milestone is a maximum level of annual emissions for a given year. The first report was submitted in 2004 for the calendar year 2003.

The milestone for 2012 is 200,722 tons. The 2010, 2011, and 2012 adjusted emissions from the Section 309 states were averaged, and this average was compared to the 2012 milestone to determine whether the milestone was met. 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 (2006).

The Section 309 states reported 95,541 tons of SO<sub>2</sub> emissions for the calendar year 2012. The total emissions increased to 96,246 tons of SO<sub>2</sub> after making adjustments to account for changes in monitoring and calculation methods. The adjustments result in an additional 705 tons of SO<sub>2</sub> emissions. The adjusted emissions values for 2010 and 2011 were 131,124 and 117,976 tons, respectively. The average of 2010, 2011, and 2012 adjusted emissions is 115,115 tons.

**Based on the adjusted milestone and emissions data, the average of 2010, 2011, and 2012 emissions is about 43% below the 2012 three-state regional milestone.**

Based on this average annual emissions estimate, the Section 309 states determined that emissions in 2012 are below the regional SO<sub>2</sub> milestone for 2012. The 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 changes in the source population from year to year and significant changes in a source's emissions from year to year. The significant emission changes from 2011 to 2012 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 2012 Regional Milestones and Emissions for Section 309 Participating States\***

<b><u>2012 Sulfur Dioxide Milestones</u></b>	
Regional 2012 Milestone**	200,722 tons
Adjusted 2012 Milestone	200,722 tons
<b><u>2012 Sulfur Dioxide Emissions</u></b>	
Reported 2012 Emissions	95,541 tons
Adjustments***	
Emission Monitoring and Calculation Methods	705 tons
Adjusted 2012 Emissions (rounded number)	96,246 tons
<b><u>Average Sulfur Dioxide Emissions (2010, 2011, &amp;2012)</u></b>	
Adjusted 2012 Emissions	96,246 tons
Adjusted 2011 Emissions	117,976 tons
Adjusted 2010 Emissions	131,124 tons
Average of, 2010, 2011, & 2012 Adjusted Emissions	115,115 tons
<b><u>Comparison of Emissions to Milestone</u></b>	
Average of 2010, 2011, & 2012 Adjusted Emissions	115,115 tons
Adjusted Three-State 2012 Milestone	200,722 tons
Difference (Negative Value = Emissions < Milestone)	-85,607 tons
2010 – 2012 Emissions Average as Percent of 2012 Milestone	57%

\* Section 309 participating states means the states of New Mexico, Utah, and 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.

## 2012 Regional SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions targets (from 2003 to 2018). These voluntary emissions reduction targets represent reasonable progress in reducing the 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 tenth 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 2012. Based on the first ten years, the voluntary milestone phase of the program is working 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. These regulations were published 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.

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. These strategies must be shown to 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 same strategies can also be used by the nine western states and tribes to protect the other Class I areas within their own jurisdictions.

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<sub>2</sub> 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. EPA, however, never approved these SIPs due to the legal challenges.

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 a few key elements of the Section 309 process for the participating Section 309 states:

1. Section 309(d)(4)(i) requires SO<sub>2</sub> 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<sub>2</sub> emissions in order to ensure the SO<sub>2</sub> 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 assessments in 2013 and 2018.

This report responds to Item 2, above, and provides the annual report that compares the 2012 emissions against the milestones for the states and city that have submitted Section 309 SIPs to EPA.

#### What Elements Must the Regional SO<sub>2</sub> 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<sub>2</sub> 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). Since this is the tenth report, 2010, 2011, and 2012 emissions are averaged.

#### How Is Compliance with the SO<sub>2</sub> 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<sub>2</sub> milestone has either been met or exceeded. The draft determination is then submitted for public review and comment during the first part of 2014, culminating in a final report sent to EPA by March 31, 2014.

## 1.2 Report Organization

This report presents the regional SO<sub>2</sub> 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<sub>2</sub> Emissions in 2012;
- Monitoring Methodology Emissions Adjustments;
- 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<sub>2</sub> Emissions and Milestone Source Inventory.

## 2.0 Reported SO<sub>2</sub> Emissions in 2012

All stationary sources with reported emissions of 100 tons or more per year in 2000 or any subsequent year are required to report annual SO<sub>2</sub> emissions. Table 1 summarizes the annual reported emissions from applicable sources in each state. The 2012 reported SO<sub>2</sub> emissions for each applicable source are in Appendix A, Table A-1.

**Table 1. Reported 2012 SO<sub>2</sub> Emissions by State**

State	Reported 2012 SO <sub>2</sub> Emissions (tons/year)
New Mexico	15,074
Utah	22,692
Wyoming	57,775
TOTAL	95,541



### 3.0 Monitoring Methodology Emissions Adjustments

The annual emissions reports for each state include proposed emissions adjustments to ensure consistent comparison of emissions to the milestone. The reported emissions are adjusted so that the adjusted emissions levels are comparable to the levels that would result if the state used the same emissions monitoring or calculation method that was used in the base year inventory (2006). The net impact throughout the region as a result of these adjustments is an increase of 705 tons from the reported 2012 emissions. Table 2 summarizes the emissions adjustments made for a total of four facilities.

**Table 2. Adjustments for Changes in Monitoring Methodology**

<b>State</b>	<b>Source</b>	<b>Reported 2012 SO<sub>2</sub> Emissions (tons)</b>	<b>Adjusted 2012 SO<sub>2</sub> Emissions (tons)</b>	<b>Monitoring Methodology Adjustment (tons)</b>	<b>Description</b>
UT	Chevron Products Co. – Salt Lake Refinery	20	34	14	Now using CEM data instead of stack tests and H2S analysis
UT	Big West Oil-Flying J Refinery	92	217	125	Now using CEM data
UT	Holcim – Devil’s Slide Plant	87	421	344	Facility changed emissions calculation methodology from stack tests to CEM
UT	Holly Refining and Marketing Co. -- Phillips Refinery	129	361	232	Facility changed emissions calculation methodology from stack test to CEMS.

#### 4.0 Three-Year Average Emissions (2010, 2011, and 2012)

The SIPs require multi-year averaging of emissions from 2004 to 2017 for the milestone comparison. From 2005 to 2017, a three-year average (which includes the reporting year and the two previous years) will be calculated to compare with the milestone. The average of the three-years' emissions from 2010 to 2012 is 115,115 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 (2010, 2011, & 2012)**

Year	Adjusted SO <sub>2</sub> Emissions (tons/year)
2010	131,124
2011	117,976
2012	96,246
Three-Year Average (2010, 2011, 2012)	115,115

#### 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 approved SIP revision before taking effect.

##### Enforcement Milestone Adjustment

There were no proposed enforcement action related milestone adjustments reported for 2012.

#### 6.0 Quality Assurance

The states provided 2012 emissions data based on their state emissions inventories. For this report, additional quality assurance (QA) procedures were used 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<sub>2</sub> 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.

Table 4 provides explanations for the emissions variations from 2011 – 2012 that are greater than 20%. Plants with variations greater than 20%, but reported emissions of less than 20 tons in both 2011 and 2012, 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. There were no sources added since the 2011 report.

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

State	County FIPS	State Facility Identifier	Plant Name	Reported 2011 SO <sub>2</sub> Emissions (tons)	Reported 2012 SO <sub>2</sub> Emissions (tons)	Description Change > 20% 2011 to 2012
NM	15	350150002	Frontier Field Services /Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant; BP America Production]	1,704	860	2012 Emissions from process flares were greatly reduced from 2011.
NM	15	350150011	DCP Midstream/Artesia Gas Plant	326	229	The amount of acid gas emergency flaring events were reduced in 2012.
NM	25	350250035	DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]	1,304	441	The Sulfur Recovery Unit Incinerator Thermal Oxidizer was removed. Current allowable emissions are now 10 TPY.
NM	25	350250060	VERSADO GAS PROCESSORS, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT]	718	176	Acid Gas Injection (AGI) unit installed 9/1/11
NM	31	350310008	Western Refinery/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]	125	42	Phased SO <sub>2</sub> reductions from FCCU (fluidized catalytic cracking unit) to beginning 9/1/09
NM	25	350250007	J L Davis Gas Processing/Denton Plant	675	1,150	Emissions to the acid gas flare amine unit increased.
NM	15	350150008	OXY USA WTP Limited Partnership - Indian Basin Gas Plant [Old Name - Marathon Oil/Indian Basin Gas Plant]	133	27	There were no emissions from the Tail Gas Incinerator, and emissions from the SSM Flare (Pilot and Purge) were significantly lower.
NM	25	350250008	Regency Field Services/Jal #3 [Old Name Southern Union Gas] /Jal #3	1319	666	Company installed a partial Acid Gas Injection system in 2011
NM	25	350250061	Versado Gas Processors, LLC / Monument Plant [Old name(s):TARGA MIDSTREAM SERVICES LP, WARREN PETROLEUM/MONUMENT PLANT]	771	115	Company installed an Acid Gas Injection system in 2011

State	County FIPS	State Facility Identifier	Plant Name	Reported 2011 SO <sub>2</sub> Emissions (tons)	Reported 2012 SO <sub>2</sub> Emissions (tons)	Description Change > 20% 2011 to 2012
NM	25	350250063	Versado Gas Processors, LLC/Saunders Plant [Old name(s): TARGA MIDSTREAM SERVICES, LP, WARREN PETROLEUM/SAUNDERS PLANT]	251	367	Emissions increased from the SRU and Thermal Incinerator
NM	31	350310032	Tri-State Gen & Transmission/Escalante Station	1,257	790	The facility combusted approximately 1.5 times more fuel in 2011 than in 2012.
NM	45	350450247	Western Gas Resources/San Juan River Gas Plant	621	42	Company installed an Acid Gas Injection system
UT	11	10122	Big West Oil Company - Flying J Refinery	192	92	Now Using CEM Data
UT	27	10313	Graymont Western US Inc. -- Cricket Mountain Plant	16	38	Increased due to Increase in Current Stack Test Values
UT	29	10007	Holcim-Devil's Slide Plant	344	87	Decreased due to Drop in CEM Value
UT	27	10327	Intermountain Power Service Corporation -- Intermountain Generation Station	4,934	3,551	Decrease due to lower amount of coal burned
UT	35	10346	Kennecott Utah Copper Corp. -- Smelter & Refinery	696	560	Decreased due to Drop in CEM Value
UT	37	10034	Patara Midstream LLC (was EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant	25	1	Decrease in H2S in Gas Stream
WY	11	3	American Colloid Mineral Co -- West Colony	50	0	The Colony East and Colony West plants have been merged under one permit.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2011 SO <sub>2</sub> Emissions (tons)	Reported 2012 SO <sub>2</sub> Emissions (tons)	Description Change > 20% 2011 to 2012
WY	5	45	Basin Electric -- Dry Fork Station	279	692	In 2011, this facility was operational for less than four months. For 2012, the facility was operational for a full year.
WY	5	63	Black Hills Corporation - Neil Simpson II	542	420	The amount of coal burned declined by about 78,000 tons.
WY	5	146	Black Hills Corporation - Wygen 1	559	394	The amount of coal consumed decreased by about 43,000 tons.
WY	5	225	Cheyenne Light Fuel and Power Company -- Wygen II	215	165	The amount of coal consumed decreased by about 68,000 tons.
WY	5	281	Black Hills Corporation - Wygen III	256	326	The amount of coal burned increased by about 9,000 tons.
WY	13	0009	Burlington Resources -- Bighorn Wells	223	0	There were no bighorn flaring events that happened on-site at the big horn wells. In 2011, the bighorn well flaring resulted in 222.6 tons of SO <sub>2</sub> . In 2012, no flaring occurred at the well and therefore the emissions were 0 tons in 2012.
WY	41	9	Chevron USA -- Carter Creek Gas Plant	100	37	The year 2012 SO <sub>2</sub> emissions were 63% lower than the 2011 SO <sub>2</sub> emissions due to the fact that there were no major upsets at the plant during 2012.
WY	37	14	Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP)	44	27	During CY 2011, a turnaround occurred leading to the rise in SO <sub>2</sub> emissions for that year. In CY 2012, there wasn't a turnaround and maintenance issues led to the lower value.
WY	23	1	Exxon Mobil Corporation -- Labarge Black Canyon Facility	156	7	No turnaround in 2012, thus greatly reducing SO <sub>2</sub> emissions.
WY	23	13	Exxon Mobil Corporation -- Shute Creek	946	494	No turnaround in 2012, thus greatly reducing SO <sub>2</sub> emissions.
WY	37	49	FMC Wyoming Corporation -- Granger Soda Ash Plant	189	320	Emissions increase. This was a result of the plant being online during the entire year for 2012. In June 2011, the FMC Granger plant came out of production curtailment and was only on for half of the year. Therefore, the coal-fired boilers UIN-14 and 15 hours of operation were significantly higher in 2012.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2011 SO <sub>2</sub> Emissions (tons)	Reported 2012 SO <sub>2</sub> Emissions (tons)	Description Change > 20% 2011 to 2012
WY	21	1	Frontier Oil & Refining Company -- Cheyenne Refinery	253	174	Significant decrease in plant upsets in the main flare than in 2011.
WY	43	3	Hiland Partners, LLC -- Hiland Gas Plant	45	25	Overall, less gas was sent to the flare in 2012 than in 2011. In 2012, there was a decrease in the amount of gas sent to the flare due to both pigging operations and maintenance activities. Less compressor blowdown events in 2012 than in 2011. Note that because of the small total emissions from the process and safety flare, a small difference in usage (and emissions) causes a large percentage change.
WY	29	0010	Marathon Oil Co -- Oregon Basin Wellfield	96	162	The calculation method has not changed from the baseline year of 2006. Emissions from the Clause plant gas incinerator have not changed by more than 20% from 2011. The Plant Flare SO <sub>2</sub> emissions increased by 0.5 tons or 21%; and the Field Flare SO <sub>2</sub> emissions increased by 66.0 tons or 41%. The Field Flare increase was primarily the result of turnaround and maintenance activities that Marthon applied for and received Chapter 6, Section 2 waivers to flare. CEM and inlet gas * sulfur content.
WY	37	8	Merit Energy Company - Brady Gas Plant (formerly Anadarko E&P Co LP)	209	1,136	Reporting year 2012 emissions for the Ucarsol Regenerator Heater (H-100A) and Benfield Regenerator Heater (H-100B) decreased more than 20% from 2011 emissions. This is due to a reduction in operating hours for the units. Emissions from the Inlet Gas Dehydration Heater (H-10) have also decreased more than 20%, as the unit did not operate in CY 2012. In additions, emissions from the emergency flare (V-1) have increased more than 20% due to increased flaring events at the Brady plant due to issues encountered with the acid gas injection wells.
WY	9	1	Pacificorp - Dave Johnston Plant	11,306	8,723	Unit 4 experienced a change of greater than 20% for SO <sub>2</sub> between 2011 and 2012. Causes for the significant SO <sub>2</sub> emission reduction was the installation & startup of the unit's dry scrubber along with fewer unit operating hours due to modifications of the emission control unit under Construction Permit 5098-A. 40 CFR Part 75 calc. method.
WY	23	4	Pacificorp -- Naughton Plant	20,461	8,019	Emissions decreased by more than 20% from CY 2011 due to the installation of scrubbers on both boilers (Units 1 and 2).
WY	37	22	Simplot Phosphates LLC -- Rock Springs Plant	1,502	1,150	Emissions decreased by >20% due to an extended shutdown of the Lurgi sulfuric plant during the 2012 turnaround for extensive brick work in the sulfur furnace. CEMS and AP-42 used for emissions calculations.

State	County FIPS	State Facility Identifier	Plant Name	Reported 2011 SO <sub>2</sub> Emissions (tons)	Reported 2012 SO <sub>2</sub> Emissions (tons)	Description Change > 20% 2011 to 2012
WY	7	1	Sinclair Oil Company -- Sinclair Refinery	505	964	The main difference was 480 tons of SO <sub>2</sub> . This was due to more gas was flared in 2012 than in 2011.
WY	37	5	Solvay Chemicals -- Soda Ash Plant (Green River Facility)	46	33	Please note the 2012 emissions for Source #18 are more than 20% lower than emissions in 2011. This is due to an average of 0.010 lb/MMBTU SO <sub>2</sub> in 2012 in comparison to an average of 0.022 lb/MMBTU SO <sub>2</sub> in 2011. However, the amount of fuel burned in Source #18 was similar during 2011 and 2012. Also, the emissions from Source #73 are more than 20% lower than emissions in 2011. This is due to 280 operating hours in 2012 in comparison to 2012 operating hours in 2011. In addition, the emissions from Source #89 are more than 20% lower than emissions in 2011. This is due to 38 operating hours in 2012 in comparison to 397 operating hours in 2011.
WY	15	1	The Western Sugar Cooperative -- Torrington Plant	182	249	Please note the 2012 emissions for Source #18 are more than 20% lower than emissions in 2011. This is due to an average of 0.010 lb/MMBTU SO <sub>2</sub> in 2012 in comparison to an average of 0.022 lb/MMBTU SO <sub>2</sub> in 2011. However, the amount of fuel burned in Source #18 was similar during 2011 and 2012. Also, the emissions from Source #73 are more than 20% lower than emissions in 2011. This is due to 280 operating hours in 2012 in comparison to 2012 operating hours in 2011. In addition, the emissions from Source #89 are more than 20% lower than emissions in 2011. This is due to 38 operating hours in 2012 in comparison to 397 operating hours in 2011.



## 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 66% of the region's reported emissions in 2012. 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<sup>a</sup>.

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<sup>a</sup> The reported emissions for Pacificorp's Naughton Plant in WY contain an extra 26 tons of SO<sub>2</sub> 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<sub>2</sub> emissions due to emission points that are not included in the acid rain data.

## **7.0 Preliminary Milestone Determination**

The Section 309 state 2012 milestone is 200,722 tons SO<sub>2</sub>, which represents the average regional emissions milestone for the years 2010, 2011, and 2012. The average of 2010, 2011, and 2012 adjusted emissions was determined to be 115,115 tons SO<sub>2</sub>. Therefore, the participating states have met the 200,722 tons SO<sub>2</sub> milestone.

## **8.0 Public Comments**

New Mexico, Utah, Wyoming and Albuquerque-Bernalillo County each published a draft of this report for public review and comment. No comments were received.

**Appendix A**

**Table A-1  
2012 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 2012 SO <sub>2</sub> Emissions (tons)	Adjusted 2012 SO <sub>2</sub> Emissions (tons)	2012 General New Monitoring Calculation Method Adjustment (tons)
NM	15	350150024		Agave Energy Co./Agave Dagger Draw Gas Plant	1311	211111	3	3	
NM	15	350150002		Frontier Field Services /Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant; BP America Production]	1321	211112	860	860	
NM	15	350150011		DCP Midstream/Artesia Gas Plant	1321	211112	229	229	
NM	25	350250044		DCP Midstream/Eunice Gas Plant [Old name: GPM GAS EUNICE GAS PLANT]	1321	211112	2,881	2,881	
NM	25	350250035		DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]	1321	211112	441	441	
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	
NM	25	350250060		VERSADO GAS PROCESSORS, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT]	1321	211112	176	176	
NM	25	350250004		Frontier Field Services/Maljamar Gas Plant	1321	211112	2,618	2,618	

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State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2012 SO <sub>2</sub> Emissions (tons)	Adjusted 2012 SO <sub>2</sub> Emissions (tons)	2012 General New Monitoring Calculation Method Adjustment (tons)
NM	31	350310008		Western Refinery/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]	2911	32411	42	42	
NM	25	350250007		J L Davis Gas Processing/Denton Plant	1311	211111	1,150	1,150	
NM	15	350150008		OXY USA WTP Limited Partnership - Indian Basin Gas Plant [Old Name - Marathon Oil/Indian Basin Gas Plant]	1321	211112	27	27	
NM	15	350150010		Navajo Refining Co/Artesia Refinery	2911	32411	40	40	
NM	45	350450902	2451	Public Service Co of New Mexico/San Juan Generating Station	4911	221112	4,624	4,624	
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	666	666	
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	115	115	
NM	25	350250063		Versado Gas Processors, LLC/Saunders Plant [Old name(s): TARGA MIDSTREAM SERVICES, LP, WARREN PETROLEUM/SAUNDERS PLANT]	1321	211112	367	367	
NM	31	350310032	87	Tri-State Gen & Transmission/Escalante Station	4911	221112	790	790	
NM	45	350450247		Western Gas Resources/San Juan River Gas Plant	1321	211112	42	42	
NM	45	350450023		Western Refining Southwest Inc./San Juan Refinery (Bloomfield) [Old name: GIANT INDUSTRIES/BLOOMFIELD REF]	2911	32411	3	3	

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State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2012 SO <sub>2</sub> Emissions (tons)	Adjusted 2012 SO <sub>2</sub> Emissions (tons)	2012 General New Monitoring Calculation Method Adjustment (tons)
UT	49	10790		Brigham Young University -- Main Campus	8221	611310	97	97	
UT	11	10119		Chevron Products Co. -- Salt Lake Refinery	2911	324110	20	34	14
UT	11	10122		Big West Oil Company - Flying J Refinery	2911	324110	92	217	125
UT	27	10313		Graymont Western US Inc. -- Cricket Mountain Plant	1422	212312	38	38	
UT	29	10007		Holcim-Devil's Slide Plant	3241	327310	87	421	334
UT	11	10123		Holly Refining and Marketing Co. -- Phillips Refinery	2911	324110	129	361	232
UT	27	10327	6481	Intermountain Power Service Corporation -- Intermountain Generation Station	4911	221112	3,551	3,551	
UT	35	10572		Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment	1021	212234	1,413	1,413	
UT	35	10346		Kennecott Utah Copper Corp. -- Smelter & Refinery	3331	331411	560	560	
UT	27	10311		Materion Natural resources - Delta Mill (was Brush Resources)	1099	212299	0	0	
UT	7	10081	3644	PacifiCorp -- Carbon Power Plant	4911	221112	8,307	8,307	
UT	15	10237	6165	PacifiCorp -- Hunter Power Plant	4911	221112	4,532	4,532	
UT	15	10238	8069	PacifiCorp -- Huntington Power Plant	4911	221112	2,300	2,300	
UT	37	10034		Patara Midstream LLC (was EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant	2911	211111	1	1	

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State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2012 SO <sub>2</sub> Emissions (tons)	Adjusted 2012 SO <sub>2</sub> Emissions (tons)	2012 General New Monitoring Calculation Method Adjustment (tons)
UT	7	10096		Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility	4911	221112	586	586	
UT	35	10335		Tesoro West Coast -- Salt Lake City Refinery	2911	324110	852	852	
UT	43	10676		Utelite Corporation -- Shale processing	3295	212399	127	127	
WY	11	2		American Colloid Mineral Co -- East Colony	1459	212325	69	69	
WY	11	3		American Colloid Mineral Co -- West Colony	1459	212325	0	0	
WY	5	45		Basin Electric -- Dry Fork Station	4911	22112	692	692	
WY	31	1	6204	Basin Electric -- Laramie River Station	4911	221112	8,384	8,384	
WY	3	12		Big Horn Gas Proc -- Big Horn/Byron Gas Plant	1311	22121	0	0	
WY	5	2	4150	Black Hills Corporation - Neil Simpson I	4911	22112	901	901	
WY	5	63	7504	Black Hills Corporation - Neil Simpson II	4911	22112	420	420	
WY	45	5	4151	Black Hills Corporation - Osage Plant	4911	22112	0	0	
WY	5	146	55479	Black Hills Corporation - Wygen 1	4911	22112	394	394	
WY	5	225		Cheyenne Light Fuel and Power Company -- Wygen II	4911	22112	165	165	
WY	5	281		Black Hills Corporation - Wygen III	4911	221112	326	326	
WY	13	0009		Burlington Resources -- Bighorn Wells	1300	21111	0	0	
WY	13	28		Burlington Resources -- Lost Cabin Gas Plant	1311	211111	1,783	1,783	

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State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2012 SO <sub>2</sub> Emissions (tons)	Adjusted 2012 SO <sub>2</sub> Emissions (tons)	2012 General New Monitoring Calculation Method Adjustment (tons)
WY	41	9		Chevron USA -- Carter Creek Gas Plant	1311	211111	37	37	
WY	37	0177		Chevron USA -- Table Rock Field	1300	21111	0	0	
WY	37	14		Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP)	1321	211111	27	27	
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	2	2	
WY	13	8		Devon Gas Services, L.P. -- Beaver Creek Gas Plant	1311	211111	142	142	
WY	29	12		Encore Operating LP -- Elk Basin Gas Plant	1311	211111	779	779	
WY	23	1		Exxon Mobil Corporation -- Labarge Black Canyon Facility	1300	21111	7	7	
WY	23	13		Exxon Mobil Corporation -- Shute Creek	1311	211111	494	494	
WY	37	48		FMC Corp -- Green River Sodium Products (Westvaco facility)	2812	327999	2,829	2,829	
WY	37	49		FMC Wyoming Corporation -- Granger Soda Ash Plant	1474	212391	320	320	
WY	21	1		Frontier Oil & Refining Company -- Cheyenne Refinery	2911	32411	174	174	
WY	43	3		Hiland Partners, LLC -- Hiland Gas Plant	1321	48621	25	25	
WY	29	7		Marathon Oil Co -- Oregon Basin Gas Plant	1321	211112	233	233	
WY	29	0010		Marathon Oil Co -- Oregon Basin Wellfield	1300	21111	162	162	
WY	37	8		Merit Energy Company - Brady Gas Plant (formerly Anadarko E&P Co LP)	1321	211112	1,136	1,136	

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State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2012 SO <sub>2</sub> Emissions (tons)	Adjusted 2012 SO <sub>2</sub> Emissions (tons)	2012 General New Monitoring Calculation Method Adjustment (tons)
WY	41	12		Merit Energy Company -- Whitney Facility	1311	211111	0	0	
WY	41	0002		Merit Energy Company -- Whitney Canyon WellField	1300	21111	2	2	
WY	1	2		Mountain Cement Company -- Laramie Plant	3241	23571	268	268	
WY	37	3		P4 Production, L.L.C. -- Rock Springs Coal Calcining Plant	3312	331111	779	779	
WY	9	1	4158	Pacificorp - Dave Johnston Plant	4911	221112	8,723	8,723	
WY	37	1002	8066	Pacificorp -- Jim Bridger Plant	4911	221112	9,975	9,975	
WY	23	4	4162	Pacificorp -- Naughton Plant	4911	221112	8,019	8,019	
WY	5	46	6101	Pacificorp -- Wyodak Plant	4911	221112	2,298	2,298	
WY	37	22		Simplot Phosphates LLC -- Rock Springs Plant	2874	325312	1,150	1,150	
WY	7	1		Sinclair Oil Company -- Sinclair Refinery	2911	32411	964	964	
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	33	33	
WY	37	2		TATA Chemicals (Soda Ash Partners)-- Green River Plant (formerly General Chemical)	1474	327999	5,098	5,098	
WY	15	1		The Western Sugar Cooperative -- Torrington Plant	2063	311313	249	249	
WY	1	5		University of Wyoming - Heat Plant	8221	61131	161	161	
WY	45	1		Wyoming Refining -- Newcastle Refinery	2911	32411	327	327	



**Appendix B**

**Table B-1**  
**Sources Added to the SO<sub>2</sub> Emissions and Milestone Report Inventory**

<b>State</b>	<b>County FIP Code</b>	<b>State Facility ID</b>	<b>Facility Name</b>	<b>Report Year of Change</b>
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

**Table B-2**  
**Sources Removed from the SO<sub>2</sub> 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.