State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-029-11

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce Bird, Executive Secretary

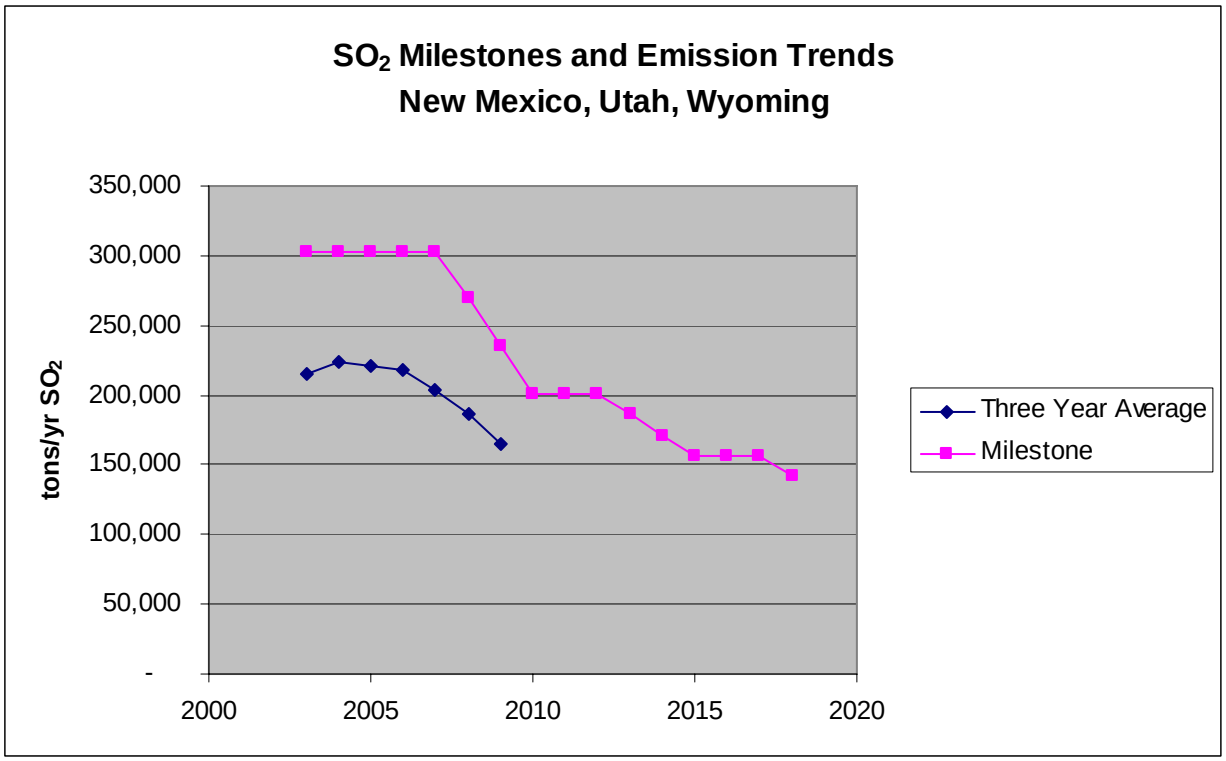
FROM: Colleen Delaney, Environmental Scientist

DATE: June 7, 2011

SUBJECT: 2009 Sulfur Dioxide Milestone Report

Utah's State Implementation Plan for Regional Haze (the Plan) adopted by the Air Quality Board on April 6, 2011, requires that Utah cooperate with two other states and one city (i.e. New Mexico, Wyoming, and Albuquerque) in producing an annual report to determine if the 2007-2009 average emissions of sulfur dioxide (SO_2) from large industrial sources are less than the SO_2 milestone set in the Plan. The average emissions inventory for 2007-2009 is calculated by totaling all emissions from participating entities for each year, then averaging the three years of data. This number is then compared to the 2009 milestone set in the Plan. The draft report for calendar year 2009 is now available for public comment at http://www.airquality.utah.gov/Public-Interest/Public-Commen-Hearings/Pubrule.htm.

The report shows that adjusted total emissions of SO_2 from large sources in the participating entities declined in 2009; that the average emissions for 2007-2009 were 165,633 tons; and that the milestone for 2009 is 234,903 tons. The report demonstrates that emissions in the participating entities are less than the milestone and have met the requirements of the Plan for 2009. Therefore, implementation of the backstop trading program for SO_2 identified in the Plan is not triggered. The graph below shows the milestones set forth within the Plan and the three-year averages emissions from the participating entities.



The UDAQ will hold a public hearing at July 13, 2011, at 1:00 p.m. The comment period closes at 5:00 p.m. on July 14, 2011. Comments postmarked on or before that date will be accepted. Comments may be submitted by electronic mail to kkreykes@utah.gov or may be mailed to:

ATTN: SO_2 Milestone Report
Bryce Bird, Director
Utah Division of Air Quality
PO Box 144820
Salt Lake City, UT 84114-4820

2009 Regional SO_2 Emissions and Milestone Report

Draft May 19, 2011

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

Utah

Colleen Delaney
Utah Department of Environmental Quality
Division of Air Quality
195 North 1950 West
Salt Lake City, UT 84114-4820
Phone: 801-536-4242
Fax: 801-536-0085
cdelaney@utah.gov

New Mexico

Rhonda Payne
New Mexico Environment Department
Air Quality Bureau
1301 Siler Rd., Bldg. B
Santa Fe, NM 87507
Phone: 505-476-4329
Fax: 505-476-4375
rhonda.payne@state.nm.us

Albuquerque

Neal Butt
City of Albuquerque
Environmental Health/Air Quality Division
P.O. Box 1293
Albuquerque, NM 87103
Phone: 505-768-2660
Fax: 505-768-1977
Nbutt@cabq.gov

2009 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 the city of Albuquerque, New Mexico 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 the city of Albuquerque 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 the city of Albuquerque, 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 first report was submitted in 2004 for the calendar year 2003.

The three states and the City of Albuquerque are in various stages of the process to revise the milestones in their SIPs that were adopted in 2003 or 2008. This milestone report measures progress towards meeting the 2009 milestone that was developed by the Section 309 states through a regional process but that has not yet been adopted by all of the participants. If there are changes to the milestones due to the public process in those states then this report will be modified to reflect the final SIPs. The three-state and one city region milestone for 2009 is 234,903 tons. To determine whether or not the milestone was met, the 2007, 2008, and 2009 adjusted emissions from the Section 309 states were averaged, and this average was compared to the 2009 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 (2006).

Based on the adjusted milestone and emissions data, the average of 2007, 2008, and 2009 emissions is about 29% below the 2009 three-state regional milestone.

The Section 309 states reported 142,608 tons of SO_2 emissions for the calendar year 2009. The total emissions increased to 143,704 tons of SO_2 after making adjustments to account for changes in monitoring and calculation methods. The adjustments result in an additional 1,097 tons of SO_2 emissions. The adjusted emissions values for 2007 and 2008 were 187,599 tons and 165,595 tons, respectively. The average of 2007, 2008, and 2009 adjusted emissions is 165,633 tons.

Based on this average annual emissions estimate, the Section 309 states determined that emissions in 2009 are below the regional SO_2 milestone for 2009. 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 2008 to 2009 are included in Section 7 of this report. A list of facilities added to or removed from the list of subject sources included in the original base year inventories is included in Appendix B.

Table ES-1
Overview of 2008 Regional Milestones and Emissions for Section 309 Participating States*

2009 Sulfur Dioxide Milestones	
Regional 2009 Milestone**	234,903 tons
Adjusted 2009 Milestone	234,903 tons
2009 Sulfur Dioxide Emissions	
Reported 2009 Emissions	142,608 tons
Adjustments***	
Emission Monitoring and Calculation Methods	1,097 tons
Adjusted 2009 Emissions (rounded number)	143,704 tons
Average Sulfur Dioxide Emissions (2007, 2008, & 2009)	
Adjusted 2009 Emissions	143,704 tons
Adjusted 2008 Emissions	165,595 tons
Adjusted 2007 Emissions	187,599 tons
Average of 2007, 2008, & 2009 Adjusted Emissions	165,633 tons
Comparison of Emissions to Milestone	
Average of 2007, 2008, & 2009 Adjusted Emissions	165,633 tons
Adjusted Three-State 2009 Milestone	234,903 tons
Difference (Negative Value = Emissions < Milestone)	-69,270 tons
2007 – 2009 Emissions Average as Percent of 2009 Milestone	71%

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

2009 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 the City of Albuquerque, New Mexico 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, the Section 309 states have established annual SO_2 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 seventh 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 2009. Based on the first seven years, the voluntary milestone phase of the program is working and emissions are well below the target levels.

<u>What is Regional Haze</u>?

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_2 emissions, five states had originally submitted Section 309 SIPs to EPA. These states were Arizona, New Mexico, Oregon, Utah, and Wyoming. In addition, the City of Albuquerque had 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 the city of Albuquerque. The three remaining states and one city have revised, or are in the process of revising, their SIPs. 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_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 assessments in 2013 and 2018.

This report responds to Item 2, above, and provides the annual report that compares the 2009 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). Since this is the seventh report, 2007, 2008, and 2009 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 has either been met or exceeded. The draft determination is then submitted for public review and comment during the first part of 2011, culminating in a final report sent to EPA by March 31, 2011.

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 2009;
- 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_2 Emissions and Milestone Source Inventory.

2.0 Reported SO_2 Emissions in 2009

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_2 emissions. Table 1 summarizes the annual reported emissions from applicable sources in each state. The 2009 reported SO_2 emissions for each applicable source are in Appendix A, Table A-1.

Table 1
Reported 2009 SO_2 Emissions by State

State	Reported 2009 SO_2 Emissions (tons/year)
New Mexico	18,434
Utah	27,295
Wyoming	96,849
TOTAL	142,608

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 1,097 tons from the reported 2009 emissions. Table 2 summarizes the emissions adjustments made for a total of five facilities.

Table 2
Adjustments for Changes in Monitoring Methodology

State	Source	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	Monitoring Methodology Adjustment (tons)	Description
NM	Giant Industries/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]	244.3	922	678	Facility changed emissions calculation methodology from annual usage factors to CEMS
UT	Holcim-Devil's Slide Plant	301	338	37	Facility changed emissions calculation methodology from stack test to CEMS.
UT	Holly Refining and Marketing Co. -- Phillips Refinery	461	753	292	Facility changed emissions calculation methodology from stack test to CEMS.
UT	Tesoro West Coast -- Salt Lake City Refinery	988	989	1	Engineering judgement factor changed
WY	Simplot Phosphates LLC -- Rock Springs Fertilizer Plant	1,339.7	1,429.1	89.4	Facility changed emissions calculation methodology from stack tests to CEMS.

4.0 Three-Year Average Emissions (2007, 2008, and 2009)

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 2007 to 2009 is 165,633 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 (2006, 2007, & 2008)

Year	Adjusted SO_2 Emissions (tons/year)
2007	187,599
2008	165,595
2009	143,704
Three-Year Average (2006, 2007, 2008)	165,633

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 2009.

6.0 Quality Assurance

The states provided 2009 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_2 emissions and milestone report include a description of source changes or exceptions report to identify:

- 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; and
- 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 2008 – 2009 that are greater than 20%. Plants with variations greater than 20%, but reported emissions of less than 20 tons in both 2008 and 2009, are not included in Table 5. 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 or removed since the 2008 report.

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

State	County FIPS	State Facility Identifier	Reported 2008 SO_2 Emissions (tons)	Reported 2009 SO_2 Emissions (tons)	Plant Name	Description/ Comments
NM	015	350150002	1,201	650.9	BP America Production/Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant]	Operations were abnormal in 2008. A hurricane caused the plant to flare a lot of product since there was no place to move the gas.
NM	025	350250035	1,584	479.26	DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]	A series of excess emissions events caused an increase in SO_2 emitted in 2008. 2009 reflects normal operations.
NM	025	350250060	3,020	1290.35	Targa Midstream Services LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT]	A series of excess emissions events caused an increase in SO_2 emitted in 2008.
NM	031	350310008	316	244.3	Giant Industries/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]	Facility changed emissions calculation methodology from annual usage factors to CEMS
NM	025	350250007	146	557.23	J L Davis Gas Processing/Denton Plant	Sulfur content of inlet gas changed.
NM	015	350150008	722	243.5	Marathon Oil/Indian Basin Gas Plant	Tail gas unit off of sulfur plant was only operational Jan-Apr 2009.
NM	045	350450902	10,649	5537.00	Public Service Co of New Mexico/San Juan Generating Station	Decrease due to consent decree and environmental upgrades.
NM	025	350250008	1,609	981.27	Southern Union Gas/Jal #3	Fluctuation in excess emissions

(cont.)

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

State	County FIPS	State Facility Identifier	Reported 2008 SO_2 Emissions (tons)	Reported 2009 SO_2 Emissions (tons)	Plant Name	Description/ Comments
NM	025	350250061	1,235	579.8	Targa Midstream Services/Monument Plant [Old name: WARREN PETROLEUM/MONUMENT PLANT]	Decrease in flaring during SRU and plant shutdown and startup due to better cooperation from producers shutting in wells during plant shut downs.
UT	011	10119	592	842	Chevron Products Co. -- Salt Lake Refinery	Increase in amount of fuel used during year
UT	037	10034	85	147	EnCana Oil & Gas (USA) Incorporated (was Tom Brown Incorporated) -- Lisbon Natural Gas Processing Plant	Increase in amount of fuel through flare and operation hours of flare
UT	027	10313	31	15	Graymont Western US Inc. -- Cricket Mountain Plant	New stack tests showed decreased emissions per hour
UT	029	10007	242	301	Holcim-Devil's Slide Plant	CEM showed more emissions from coal burning. More sulfur in coal than in 2008
UT	015	10237	6,072	5,120	PacifiCorp -- Hunter Power Plant	Percent of sulfur in coal decreased
UT	043	10676	133	103	Utelite Corporation – Shale Processing	Did not burn coal in Kiln #4 in 2009
WY	011	0003	58	44	American Colloid Mineral Co -- West Colony	There was a decrease in the hours of operation for units CD-01 and DC-02.
WY	005	0063	782	555.9	Black Hills Corporation -- Neil Simpson II	Facility burned 531,635 tons coal in 2008 vs. 501,307 tons in 2009.

(cont.)

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

State	County FIPS	State Facility Identifier	Reported 2008 SO_2 Emissions (tons)	Reported 2009 SO_2 Emissions (tons)	Plant Name	Description/ Comments
WY	041	0012	133	24.5	BP America Production Company -- Whitney Facility (the facility name was changed in 2007 to the Whitney Facility from the Whitney Canyon Gas Plant with the removal of most of the equipment	The inlet flare emissions decreased due to reduced flaring.
WY	041		3.8	1.2	BP America Production Company -- Whitney Canyon Gas Field	SO2 emissions decreased 2.6 tons due to decreased wellfield flaring. There is a high % change due to the low emissions.
WY	013	0028	3,203	1,683	Burlington Resources -- Lost Cabin Gas Plant	Emissions from the Train3 flare decreased in 2009 after maintenance was conducted in 2008.
WY	013		0	971.4	Burlington Resources -- Big Horn Wells	No field flaring occurred in 2008.
WY	041	0009	59	184.7	Chevron USA -- Carter Creek Gas Plant	Increase in emissions due to the 2009 plant turnaround.
WY	037	0177	179.8	0	Chevron USA -- Table Rock Field	Decrease in emissions due to no field flaring in 2009.
WY	037	0014	102.6	37.1	Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP)	Decrease in emissions is due to the decrease in gas flaring at the plant.
WY	041	0008	60.5	0.8	Chevron USA -- Whitney Canyon/Carter Creek Wellfield	Decrease in emissions due to decreased field flaring.

(cont.)

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

State	County FIPS	State Facility Identifier	Reported 2008 SO_2 Emissions (tons)	Reported 2009 SO_2 Emissions (tons)	Plant Name	Description/ Comments
WY	013	0008	43.7	54.2	Devon Gas Services, L.P. -- Beaver Creek Gas Plant	Increase in emissions due to increased plant flaring.
WY	023	0001	37.3	217.1	Exxon Mobil Corporation -- LaBarge Black Canyon Dehydration Facility	Increase in emissions due to increased flaring.
WY	023	0013	1,538.3	1,101.3	Exxon Mobil Corporation -- Shute Creek Treating Facility	Decrease in emissions due to a decrease in flaring at the plant.
WY	037	0049	3,619.5	2,601.7	FMC Wyoming Corporation-- Westvaco Facility	Emissions decreased due to a reduction in coal burned and hours operated in the boilers and an upgrade to the NS-1B scrubber.
WY	037	0047	304.5	57.9	FMC Wyoming Corporation -- Granger Soda Ash Plant	SO_2 emissions decreased due to a decrease in soda ash production.
WY	021	0001	786	230	Frontier Oil & Refining Company -- Cheyenne Refinery	FCCU SO2 emissions were drastically reduced in 2009 due to the addition of a DeSOx catalyst.
WY	043	3	121.9	86.2	Hiland Partners, LLC -- Worland Gas Plant	Decrease in emissions due to a decrease in flaring at the plant.
WY	029	12	1,106	1,342.7	Encore -- Elk Basin Gas Plant	Increase in emissions due to an increase in flaring at the plant.
WY	029	7	408	262.3	Marathon Oil Co -- Oregon Basin Gas Plant	The reduction was the result of turnaround flaring management, gas injection, and other efforts in the field.

(cont.)

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

State	County FIPS	State Facility Identifier	Reported 2008 SO_2 Emissions (tons)	Reported 2009 SO_2 Emissions (tons)	Plant Name	Description/ Comments
WY	029	0010	367	203	Marathon Oil Co -- Oregon Basin Wellfield	Decrease in emissions due to decreased field flaring.
WY	037	8	85.2	126	Merit Energy Company -- Brady Gas Plant	Increase in emissions due to an increase in flaring at the plant.
WY	001	0002	146.5	285.4	Mountain Cement Company -- Laramie Cement Plant	The company states that gases are scrubbed by the raw materials in the raw mill while in operation. The raw mill operated 30% less in 2009, which increased SO2. The company also states that pyroprocessing has increased the emissions in the kilns. Mountian Cement also began burning the high sulfur content/high Btu content petroleum coke to offset some coal usage.
WY	007	0001	1,448.3	1,998.8	Sinclair Wyoming Refining Company -- Sinclair Refinery	Due to process and maintenance activities, more gas was flared in 2009 compared to 2008.
WY	025	0005	622.4	279.8	Sinclair Casper Refining Company -- Casper Refinery	Emissions were reduced due to reductions at the FCCU with the addition of a DeSOx catalyst, and a reduction in the amount of refinery fuel oil used in heaters and boilers.

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 2009. 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 with EPA's emission data.

7.0 Preliminary Milestone Determination

The Section 309 state 2009 milestone in the revised SIPs is 234,903 tons SO_2, which represents the average regional emissions milestone for the years 2007, 2008, and 2009. The average of 2007, 2008, and 2009 adjusted emissions was determined to be 165,612 tons SO_2. Therefore, the participating states have met the 234,903 tons SO_2 milestone.

8.0 Public Comments

New Mexico, Utah, Wyoming and the city of Albuquerque each published a draft of this report for public review and comment. [Comments will be added as needed after the public comment period.]

Comment 1:

Response:

Appendix A

Table A-1
2009 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 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
NM	015	350150024		Agave Energy Co./Agave Dagger Draw Gas Plant	1311	211111	0	0	-
NM	015	350150002		BP America Production/Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant]	1321	211112	651	651	-
NM	015	350150011		DCP Midstream/Artesia Gas Plant	1321	211112	0	0	-
NM	025	350250044		DCP Midstream/Eunice Gas Plant [Old name: GPM GAS EUNICE GAS PLANT]	1321	211112	2,758	2,758	-
NM	025	350250035		DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]	1321	211112	479	479	-
NM	015	350150138		Duke -- Magnum/Pan Energy -- Burton Flats	1321	211112	0	0	-
NM	015	350150285		Duke Energy/Dagger Draw Gas Plant	1321	211112	0	0	-
NM	025	350250060		Targa Midstream Services, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT]	1321	211112	1,290	1,290	-
NM	025	350250004		Frontier Field Services/Maljamar Gas Plant	1321	211112	2,605	2,605	-
NM	031	350310008		Giant Industries/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]	2911	32411	244	922	678

(cont.)

Table A-1
2008 Reported and Adjusted Emissions for Sources Subject to Section 309 -- Regional Haze Rule (cont.)

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
NM	025	350250007		J L Davis Gas Processing/Denton Plant	1311	211111	557	557	-
NM	015	350150008		Marathon Oil/Indian Basin Gas Plant	1321	211112	244	244	-
NM	015	350150010		Navajo Refining Co/Artesia Refinery	2911	32411	60	60	-
NM	045	350450902	2451	Public Service Co of New Mexico/San Juan Generating Station	4911	221112	5,537	5,537	-
NM	007	350070001		Raton Pub. Service/Raton Power Plant	4911	221112	0	0	-
NM	025	350250008		Southern Union Gas/Jal #3	1321	211112	981	981	-
NM	025	350250051		Targa Midstream Services, LP/Eunice South Gas Plant	1321	211112	0	0	-
NM	025	350250061		Targa Midstream Services, LP/Monument Plant [Old name: WARREN PETROLEUM/ MONUMENT PLANT]	1321	211112	579.8	579.8	-
NM	025	350250063		Targa Midstream Services, LP/Saunders Plant [Old name: WARREN PETROLEUM/SAUNDERS PLANT]	1321	211112	232	232	-
NM	031	350310032	87	Tri-State Gen & Transmission/Escalante Station	4911	221112	1,308	1,308	-
NM	045	350450247		Western Gas Resources/San Juan River Gas Plant	1321	211112	571	571	-

(cont.)

Table A-1
2008 Reported and Adjusted Emissions for Sources Subject to Section 309 -- Regional Haze Rule (cont.)

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
NM	045	350450023		Western Refining Southwest Inc./San Juan Refinery (Bloomfield) [Old name: GIANT INDUSTRIES/BLOOM FIELD REF]	2911	32411	367	367	-
UT	049	10790		Brigham Young University -- Main Campus	8221	611310	98	98	-
UT	027	10311		Brush Resources Inc. -- Delta Mill	1099	212299	0	0	-
UT	011	10119		Chevron Products Co. -- Salt Lake Refinery	2911	324110	842	842	-
UT	037	10034		EnCana Oil & Gas (USA) Incorporated (was Tom Brown Incorporated) -- Lisbon Natural Gas Processing Plant	2911	211111	147	147	-
UT	011	10122		Flying J Refinery -- (Big West Oil Company)	2911	324110	379	379	-
UT	049	10796		Geneva Steel -- Steel Manufacturing Facility	3312	331221	0	0	-
UT	027	10313		Graymont Western US Inc. -- Cricket Mountain Plant	1422	212312	15	15	-
UT	029	10007		Holcim-Devil's Slide Plant	3241	327310	301	338	37
UT	011	10123		Holly Refining and Marketing Co. -- Phillips Refinery	2911	324110	461	753	292
UT	027	10327	6481	Intermountain Power Service Corporation -- Intermountain Generation Station	4911	221112	5,517	5,517	-

(cont.)

Table A-1
2008 Reported and Adjusted Emissions for Sources Subject to Section 309 -- Regional Haze Rule (cont.)

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
UT	035	10572		Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment	1021	212234	3,140	3,140	-
UT	035	10346		Kennecott Utah Copper Corp. -- Smelter & Refinery	3331	331411	880	880	-
UT	007	10081	3644	PacifiCorp -- Carbon Power Plant	4911	221112	5,494	5,494	-
UT	015	10237	6165	PacifiCorp -- Hunter Power Plant	4911	221112	5,120	5,120	-
UT	015	10238	8069	PacifiCorp -- Huntington Power Plant	4911	221112	3,308	3,308	-
UT	007	10096		Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility	4911	221112	501	501	-
UT	035	10335		Tesoro West Coast -- Salt Lake City Refinery	2911	324110	988	989	1
UT	043	10676		Utelite Corporation -- Shale processing	3295	212399	104	104	-
WY	011	0002		American Colloid Mineral Co -- East Colony	1459	212325	49	49	-
WY	011	0003		American Colloid Mineral Co -- West Colony	1459	212325	44	44	-
WY	031	0001	6204	Basin Electric -- Laramie River Station	4911	221112	9,294	9,294	-
WY	003	0012		Big Horn Gas Proc -- Big Horn/Byron Gas Plant	1311	22121	0	0	-
WY	005	0002	4150	Black Hills Corporation -- Neil Simpson I	4911	22112	841	841	-

(cont.)

Table A-1
2008 Reported and Adjusted Emissions for Sources Subject to Section 309 -- Regional Haze Rule (cont.)

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
WY	005	0063	7504	Black Hills Corporation -- Neil Simpson II	4911	22112	556	556	-
WY	045	0005	4151	Black Hills Corporation -- Osage Plant	4911	22112	2,692	2,692	-
WY	005	0146	55479	Black Hills Corporation -- Wygen 1	4911	22112	568	568	-
WY	005	0225		Black Hills Corporation – Wygen II	4911	22112	239	239	-
WY	041	0012		BP America Production Company -- Whitney Facility	1311	211111	25	25	-
WY	041	0002		BP America Production Company -- Whitney Canyon WellField	1300	21111	1	1	-
WY	013	0009		Burlington Resources -- Bighorn Wells	1300	21111	971	971	-
WY	013	0028		Burlington Resources -- Lost Cabin Gas Plant	1311	211111	1,683	1,683	-
WY	041	0009		Chevron USA -- Carter Creek Gas Plant	1311	211111	185	185	-
WY	037	0177		Chevron USA -- Table Rock Field	1300	21111	0	0	-
WY	037	0014		Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP)	1321	211111	37	37	-
WY	041	0008		Chevron USA -- Whitney Canyon/Carter Creek Wellfield	1300	21111	1	1	-
WY	013	0007		Devon Energy Production Co., L.P. -- Beaver Creek Gas Field	1300	21111	19	19	-

(cont.)

Table A-1
2008 Reported and Adjusted Emissions for Sources Subject to Section 309 -- Regional Haze Rule (cont.)

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
WY	013	0008		Devon Gas Services, L.P. -- Beaver Creek Gas Plant	1311	211111	54	54	-
WY	029	0012		Encore Operating LP -- Elk Basin Gas Plant	1311	211111	1,343	1,343	-
WY	023	0001		Exxon Mobil Corporation -- Labarge Black Canyon Facility	1300	21111	217	217	-
WY	023	0013		Exxon Mobil Corporation -- Shute Creek	1311	211111	1,101	1,101	-
WY	037	0048		FMC Corp -- Green River Sodium Products (Westvaco facility)	2812	327999	2,602	2,602	-
WY	037	0049		FMC Wyoming Corporation -- Granger Soda Ash Plant	1474	212391	58	58	-
WY	021	0001		Frontier Oil & Refining Company -- Cheyenne Refinery	2911	32411	230	230	-
WY	037	0002		General Chemical -- Green River Plant (Facility Name: General Chemical)	1474	327999	4,933	4,933	-
WY	043	0003		Hiland Partners, LLC -- Hiland Gas Plant	1321	48621	86	86	-
WY	029	0007		Marathon Oil Co -- Oregon Basin Gas Plant	1321	211112	262	262	-
WY	029	0010		Marathon Oil Co -- Oregon Basin Wellfield	1300	21111	226	226	-
WY	037	0008		Merit Energy Company -- Brady Gas Plant (formerly Anadarko E&P Co LP)	1321	211112	126	126	-

(cont.)

Table A-1
2008 Reported and Adjusted Emissions for Sources Subject to Section 309 -- Regional Haze Rule (cont.)

State	County FIPS	State Facility Identifier	ORIS	Plant Name	Plant SIC	Plant NAICS	Reported 2009 SO_2 Emissions (tons)	Adjusted 2009 SO_2 Emissions (tons)	General New Monitoring Calculation Method Adjustment (tons)
WY	001	0002		Mountain Cement Company -- Laramie Plant	3241	23571	285	285	-
WY	037	0003		P4 Production, L.L.C. -- Rock Springs Coal Calcining Plant	3312	331111	672	672	-
WY	009	0001	4158	Pacificorp - Dave Johnston Plant	4911	221112	17,778	17,778	-
WY	037	1002	8066	Pacificorp -- Jim Bridger Plant	4911	221112	17,309	17,309	-
WY	023	0004	4162	Pacificorp -- Naughton Plant	4911	221112	20,347	20,347	-
WY	005	0046	6101	Pacificorp -- Wyodak Plant	4911	221112	7,437	7,437	-
WY	037	0022		Simplot Phosphates LLC -- Rock Springs Plant	2874	325312	1,340	1,429	89
WY	007	0001		Sinclair Oil Company -- Sinclair Refinery	2911	32411	1,999	1,999	-
WY	025	0005		Sinclair Wyoming Refining Company -- Casper Refinery	2911	32411	280	280	-
WY	037	0005		Solvay Chemicals -- Soda Ash Plant (Green River Facility)	1474	325181	52	52	-
WY	015	0001		The Western Sugar Cooperative -- Torrington Plant	2063	311313	171	171	-
WY	001	0005		University of Wyoming -- Heat Plant	8221	61131	78	78	-
WY	045	0001		Wyoming Refining -- Newcastle Refinery	2911	32411	658	658	-

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

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

* ABQ NM means the City of Albuquerque, New Mexico.
** 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.