



## 2011 Regional SO<sub>2</sub> Emissions and Milestone Report

February 20, 2013

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## 2011 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 2011 is 200,722. The 2009, 2010, and 2011 adjusted emissions from the Section 309 states were averaged, and this average was compared to the 2011 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 117,474 tons of SO<sub>2</sub> emissions for the calendar year 2011. The total emissions increased to 117,976 tons of SO<sub>2</sub> after making adjustments to account for changes in monitoring and calculation methods. The adjustments result in an additional 502 tons of SO<sub>2</sub> emissions. The adjusted emissions values for 2009 and 2010 were 143,704 tons and 131,124 tons, respectively. The average of 2009, 2010, and 2011 adjusted emissions is 130,935 tons.

**Based on the adjusted milestone and emissions data, the average of 2009, 2010, and 2011 emissions is about 35% below the 2011 three-state regional milestone.**

Based on this average annual emissions estimate, the Section 309 states determined that emissions in 2011 are below the regional SO<sub>2</sub> milestone for 2011. 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 2010 to 2011 are included in Section 6 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 2011 Regional Milestones and Emissions for Section 309 Participating States\***

|  |              |
|--|--------------|
| <b><u>2011 Sulfur Dioxide Milestones</u></b>                           |              |
| Regional 2011 Milestone**  | 200,722 tons |
| Adjusted 2011 Milestone  | 200,722 tons |
| <b><u>2011 Sulfur Dioxide Emissions</u></b>                            |              |
| Reported 2011 Emissions  | 117,474 tons |
| Adjustments***   |              |
| Emission Monitoring and Calculation Methods                            | 502 tons     |
| Adjusted 2011 Emissions (rounded number)                               | 117,976 tons |
| <b><u>Average Sulfur Dioxide Emissions (2009, 2010, &amp;2011)</u></b> |              |
| Adjusted 2011 Emissions  | 117,976 tons |
| Adjusted 2010 Emissions  | 131,124 tons |
| Adjusted 2009 Emissions  | 143704 tons  |
| Average of, 2009, 2010, & 2011 Adjusted Emissions                      | 130,935 tons |
| <b><u>Comparison of Emissions to Milestone</u></b>                     |              |
| Average of 2009, 2010, & 2011 Adjusted Emissions                       | 130,935 tons |
| Adjusted Three-State 2010 Milestone                                    | 200,722 tons |
| Difference (Negative Value = Emissions < Milestone)                    | -69,788 tons |
| 2009 – 2011 Emissions Average as Percent of 2011 Milestone             | 65%          |

\* 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.

## 2011 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, the 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 ninth 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 2011. Based on the first nine 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 had originally submitted Section 309 SIPs to EPA. These states were Arizona, New Mexico, Oregon, Utah, and Wyoming. In addition, Albuquerque-Bernalillo County 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 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 2011 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 ninth report, 2009, 2010, and 2011 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 2013, culminating in a final report sent to EPA by March 31, 2013.

## 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 2011;
- 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 2011

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 2011 reported SO<sub>2</sub> emissions for each applicable source are in Appendix A, Table A-1.

**Table 1. Reported 2011 SO<sub>2</sub> Emissions by State**

| State      | Reported 2011 SO <sub>2</sub> Emissions (tons/year) |
|------------|---|
| New Mexico | 19,904  |
| Utah       | 24,564  |
| Wyoming    | 73,007  |
| TOTAL      | 117,474   |



### 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 502 tons from the reported 2011 emissions. Table 2 summarizes the emissions adjustments made for a total of four facilities.

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

| State | Source  | Reported 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | Monitoring Methodology Adjustment (tons) | Description  |
|-------|---|--|--|--|--|
| NM    | Giant Industries/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA] | 125  | 259  | 134                                      | Facility changed emissions calculation methodology from annual usage factors to CEMS |
| UT    | Holcim-Devil's Slide Plant  | 344  | 390  | 46                                       | Facility changed emissions calculation methodology from stack test to CEMS.          |
| UT    | Holly Refining and Marketing Co. -- Phillips Refinery                       | 131  | 440  | 309                                      | Facility changed emissions calculation methodology from stack test to CEMS.          |
| UT    | Chevron Products Co. – Salt Lake Refinery                                   | 24   | 37   | 13                                       | Now Using CEM Data instead of Stack Tests and H2S Analysis                           |

#### 4.0 Three-Year Average Emissions (2009, 2010, and 2011)

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 2009 to 2011 is 130,935 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 (2009, 2010, & 2011)**

| Year                                  | Adjusted SO <sub>2</sub> Emissions (tons/year) |
|---------------------------------------|--|
| 2009                                  | 143,704  |
| 2010                                  | 131,124  |
| 2011                                  | 117,976  |
| Three-Year Average (2009, 2010, 2011) | 130,935  |

#### 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 2011.

#### 6.0 Quality Assurance

The states provided 2011 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:

- 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  $\pm 20\%$  from the previous year.

Table 4 provides explanations for the emissions variations from 2010 – 2011 that are greater than 20%. Plants with variations greater than 20%, but reported emissions of less than 20 tons in both 2010 and 2011, 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. One source was added since the 2010 report.

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

| State | County FIPS | State Facility Identifier | Plant Name   | Reported 2010 SO <sub>2</sub> Emissions (tons) | Reported 2011 SO <sub>2</sub> Emissions (tons) | Description Change > 20% 2010 to 2011  |
|-------|-------------|---------------------------|--|--|--|--|
| NM    | 15          | 350150002                 | BP America Production/Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant]                           | 786  | 1,704  | Increased plant throughput, Increased field pressures lead to increased flaring events, The Sulfur Recovery Unit froze during the winter of 2011 and required extensive repairs – and increased flaring events |
| NM    | 15          | 350150011                 | DCP Midstream/Artesia Gas Plant  | 12   | 326  | Return to normal operations after Unit 12 maintenance activities in 2010.  |
| NM    | 31          | 350310008                 | Giant Industries/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]                                | 430  | 125  | started FCC SO <sub>2</sub> additives trial in July of 2010 which lasted thru December 2011. The trial was successful as the additive chosen greatly reduces SO <sub>2</sub> emissions.                        |
| NM    | 15          | 350150008                 | Marathon Oil/Indian Basin Gas Plant  | 501  | 133  | Sulfur Recovery Unit went out of service on February 2011 due to the low gas volumes going into the plant  |
| NM    | 25          | 350250008                 | Southern Union Gas/Jal #3  | 1,878  | 1,319  | Decrease in SO <sub>2</sub> emissions due to 2nd AGI was operating in 2011, therefore reducing acid gas to SRU   |
| NM    | 45          | 350450023                 | Western Refining Southwest Inc./San Juan Refinery (Bloomfield) [Old name: GIANT INDUSTRIES/BLOOMFIELD REF] | 366  | 6  | The 2010 reported amount was incorrect. It wasn't 366 tpy - actually it was 2.75. In November of 2009, the facility suspended petroleum refining operations  |
| UT    | 11          | 10119                     | Chevron Products Co. -- Salt Lake Refinery   | 37   | 24   | Decrease in flaring emissions  |
| UT    | 11          | 10122                     | Flying J Refinery -- (Big West Oil Company)  | 280  | 192  | Decreased throughput / decrease in CEM values  |
| UT    | 29          | 10007                     | Holcim-Devil's Slide Plant   | 237  | 344  | Increase in hours of operation along with higher CEM value   |
| UT    | 11          | 10123                     | Holly Refining and Marketing Co. -- Phillips Refinery  | 231  | 131  | Decrease in CEM values   |
| UT    | 35          | 10572                     | Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment  | 3,046  | 1,704  | Decrease in sulfur throughput due to decrease in coal burned   |

| State | County FIPS | State Facility Identifier | Plant Name  | Reported 2010 SO <sub>2</sub> Emissions (tons) | Reported 2011 SO <sub>2</sub> Emissions (tons) | Description Change > 20% 2010 to 2011  |
|-------|-------------|---------------------------|---|--|--|--|
| UT    | 37          | 10034                     | Patara Midstream LLC (was EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant | 82   | 25   | Large decrease in amount of natural gas burned   |
| UT    | 7           | 10096                     | Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility  | 449  | 544  | Increase in amount of coal burned  |
| UT    | 43          | 10676                     | Utelite Corporation -- Shale processing   | 60   | 130  | Large increase in amount of coal and natural gas burned  |
| WY    | 5           | 45                        | Basin Electric -- Dry Fork Station  |  | 279  | This facility went 'online' in CY 2011.  |
| WY    | 45          | 5                         | Black Hills Corporation - Osage Plant   | 1,525  | 0  | The facility shut down in 2010.  |
| WY    | 5           | 281                       | Black Hills Corporation - Wygen III   | 173  | 256  | CY 2010 was the first year of operation and as such a partial operating year. This explains the >20% increase in 2011 over 2010.   |
| WY    | 13          | 0009                      | Burlington Resources -- Bighorn Wells   | 0  | 223  | The SO2 emissions increased due to increased flaring. One of the chokes was replaced during the past calendar year. Thus, this led to increased flaring and emissions.   |
| WY    | 13          | 28                        | Burlington Resources -- Lost Cabin Gas Plant  | 2,386  | 1,543  | The emissions from the Train 2 Incinerator increased from 59 tons in 2010 to 133 tons in 2011. This increase was primarily caused by the Train being fully operational after repair from the 2009 fire in December 2010. The emissions from the Train 3 Flare decreased from 1332 tons in 2010 to 444 tons in 2011. This decrease was primarily caused by a lessening of problems with Reaction Furnace and H2S Compressor shutdowns as well as a decrease in unplanned power outages from the local electricity supplier. The emissions from the Sulfur Tanks normally educted to the Train 1 Tail Gas Incinerator increased from 0.7 tons in 2010 to 1.1 tons in 2011. This increase is due to the decrease in operating hours of the Train 1 Incinerator from 8481 hours in 2010 to 8386 hours in 2011. |

| State | County FIPS | State Facility Identifier | Plant Name  | Reported 2010 SO <sub>2</sub> Emissions (tons) | Reported 2011 SO <sub>2</sub> Emissions (tons) | Description Change > 20% 2010 to 2011  |
|-------|-------------|---------------------------|---|--|--|--|
| WY    | 41          | 9                         | Chevron USA -- Carter Creek Gas Plant                             | 74   | 100  | The year 2011 SO <sub>2</sub> emissions were 35% higher than the 2010 SO <sub>2</sub> emissions, due to excess emissions events that occurred in December 2011.  |
| WY    | 37          | 14                        | Chevron USA -- Table Rock Gas Plant (Formerly Anadarko E&P Co LP) | 82   | 44   | The decrease in emissions from calendar year 2010, was due to reduction in upsets and maintenance events. During the last turnaround, changes were made to reduce maintenance events.  |
| WY    | 41          | 0008                      | Chevron USA -- Whitney Canyon/Carter Creek Wellfield              | 169  | 2  | The year 2011 SO <sub>2</sub> emissions were 99% lower than the year 2010 SO <sub>2</sub> emissions, due to the 2010 well testing performed on a well with a high H <sub>2</sub> S content (Well #1-17M).  |
| WY    | 13          | 0007                      | Devon Energy Production Co., L.P. -- Beaver Creek Gas Field       | 1  | 5  | The SO <sub>2</sub> emissions increased due to the acid gas reinjection well that is connected to the plant. The pipeline between the well and plant was blown down for maintenance and some of the emissions occurred on the well itself.   |
| WY    | 13          | 8                         | Devon Gas Services, L.P. -- Beaver Creek Gas Plant                | 96   | 158  | Devon Gas Services listed three (3) issues that led to increased SO <sub>2</sub> emissions: electrical problems with the Inlet engine compressor during July 2011 (many startups and shutdowns likely affected calculations); The amine treating acid gas compressor had hydrate problems; there were mechanical issues with various engines also. |
| WY    | 23          | 1                         | Exxon Mobil Corporation -- Labarge Black Canyon Facility          | 14   | 156  | Every 2 years, the Black Canyon and Shute Creek Facilities undergo a turnaround procedure that results in more flaring. The turnaround occurs on odd calendar years. Thus, SO <sub>2</sub> emissions increased by much more than 20% from 2010 to 2011.  |
| WY    | 23          | 13                        | Exxon Mobil Corporation -- Shute Creek                            | 587  | 946  | Every 2 years, the Black Canyon and Shute Creek Facilities undergo a turnaround procedure that results in more flaring. The turnaround occurs on odd calendar years. Thus, SO <sub>2</sub> emissions increased by much more than 20% from 2010 to 2011.  |

| State | County FIPS | State Facility Identifier | Plant Name   | Reported 2010 SO <sub>2</sub> Emissions (tons) | Reported 2011 SO <sub>2</sub> Emissions (tons) | Description Change > 20% 2010 to 2011  |
|-------|-------------|---------------------------|--|--|--|--|
| WY    | 37          | 49                        | FMC Wyoming Corporation -- Granger Soda Ash Plant                    | 0  | 189  | Total SO2 emissions for FMC Granger increased from 57.9 tons in 2009 to 189.0 tons in 2011, an increase of 226.4%. This was a result of the temporary production curtailment of the FMC Granger facility from April 2009 until June 2011. Production curtailment began in early 2009 and the process was completed by late April 2009. The facility came out of production curtailment in June of 2011. Therefore the coal-fired boilers UIN-14 and UIN-15 hours of operation were significantly higher in 2011. |
| WY    | 21          | 1                         | Frontier Oil & Refining Company -- Cheyenne Refinery                 | 124  | 253  | Frontier's SO2 emissions increased by more than 100% due to increased emissions in the FCCU Regenerator, the Sulfur Incinerator, and the Gas-Fired Process Heaters. The greatest increase in emissions were due to upsets. For CY 2011, there were power outages, shutdowns, and maintenance activities.   |
| WY    | 29          | 0010                      | Marathon Oil Co -- Oregon Basin Wellfield                            | 125  | 96   | The field flare emissions have reduced by 29.8 tons or 31%. This reduction is the result of increased use of the underground injection of gas that reduces the potential to flare.   |
| WY    | 37          | 8                         | Merit Energy Company - Brady Gas Plant (formerly Anadarko E&P Co LP) | 52   | 209  | Reporting year 2011 emissions for the Ucarsol Regenerator Heater (H-100A) and Benfield Regenerator Heater (H-100B) increased more than 20% from 2010 emissions. This is due to calculating emissions based on permit limits, as opposed to AP-42 emission factors (which was the methodology used for 2010). In addition, emissions from the emergency flare (V-1) have increased more than 20% due to increased flaring events at the Brady plant.  |
| WY    | 37          | 1002                      | PacifiCorp -- Jim Bridger Plant                                      | 13,654   | 9,689  | Unit 3 Sulfur Dioxide had a decrease of more than 20% emissions from 2010 to 2011 due to the installation of Flue Gas Desulfurization system upgrades per Air Quality permit MD-1552 on Unit 3.  |
| WY    | 5           | 46                        | PacifiCorp -- Wyodak Plant   | 6,768  | 2,387  | The decrease in emissions from the 2010 to 2011 reporting year was due to the unit being off line for a maintenance overhaul and induced draft fan motor failures. A new Baghouse unit was also placed into service during the 2011 reporting year.  |

| State | County FIPS | State Facility Identifier | Plant Name  | Reported 2010 SO <sub>2</sub> Emissions (tons) | Reported 2011 SO <sub>2</sub> Emissions (tons) | Description Change > 20% 2010 to 2011  |
|-------|-------------|---------------------------|---|--|--|--|
| WY    | 7           | 1                         | Sinclair Oil Company -- Sinclair Refinery         | 204  | 505  | Sinclair had over 300 tons of excess emissions due to the volume of H <sub>2</sub> S flowing through the vertical flare. The volume was much greater, resulting in more emissions.   |
| WY    | 15          | 1                         | The Western Sugar Cooperative -- Torrington Plant | 148  | 182  | The SO <sub>2</sub> emissions increased by +23.5% from 2010 to 2011 due to increased usage of the coal boiler with an additional 5,000 tons of coal burned in 2011. The coal boiler was used more as the natural gas boiler was down for a good portion of 2011.   |
| WY    | 1           | 5                         | University of Wyoming - Heat Plant                | 74   | 187  | The 2011 SO <sub>2</sub> results were much greater than those from previous years. This is attributed to the 2011 stack testing results, which were accompanied by higher-than-normal level of excess oxygen (approximately 12%). The plant typically operates between 6% and 10% excess oxygen.   |
| WY    | 45          | 1                         | Wyoming Refining -- Newcastle Refinery            | 535  | 324  | Emissions from the Prefract Heater (H-01) were lower since the average firing rate for 2011 was 26.09 MMBtu/hr. Also, the wet gas scrubber on the Fluidized Catalytic Cracking Unit (FCCU) started on November 12, 2010. Therefore, SO <sub>2</sub> emissions from the FCCU stack (S-21) decreased substantially from the previous year. |



## 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 69% of the region's reported emissions in 2011. 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 21 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 21 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 2011 milestone is 200,722 tons SO<sub>2</sub>, which represents the average regional emissions milestone for the years 2009, 2010, and 2011. The average of 2009, 2010, and 2011 adjusted emissions was determined to be 130,935 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  
2011 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 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | 2011 General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|---|-----------|-------------|--|--|--|
| NM    | 15          | 350150024                 |      | Agave Energy Co./Agave Dagger Draw Gas Plant  | 1311      | 211111      | 0  | 0  |  |
| NM    | 15          | 350150002                 |      | BP America Production/Empire Abo Plant [Old name: Arco Permian/Empire Abo Plant]            | 1321      | 211112      | 1,704  | 1,704  |  |
| NM    | 15          | 350150011                 |      | DCP Midstream/Artesia Gas Plant   | 1321      | 211112      | 326  | 326  |  |
| NM    | 25          | 350250044                 |      | DCP Midstream/Eunice Gas Plant [Old name: GPM GAS EUNICE GAS PLANT]                         | 1321      | 211112      | 2,921  | 2,921  |  |
| NM    | 25          | 350250035                 |      | DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT]               | 1321      | 211112      | 1,304  | 1,304  |  |
| 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                 |      | Targa Midstream Services, LP/Eunice Gas Plant [Old name: WARREN PETROLEUM/EUNICE GAS PLANT] | 1321      | 211112      | 718  | 718  |  |
| NM    | 25          | 350250004                 |      | Frontier Field Services/Maljamar Gas Plant  | 1321      | 211112      | 2,986  | 2,986  |  |
| NM    | 31          | 350310008                 |      | Giant Industries/Ciniza Refinery (Gallup) [Old name: GIANT REFINING/CINIZA]                 | 2911      | 32411       | 125  | 259  | 134  |

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| State | County FIPS | State Facility Identifier | ORIS | Plant Name   | Plant SIC | Plant NAICS | Reported 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | 2011 General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|--|-----------|-------------|--|--|--|
| NM    | 25          | 350250007                 |      | J L Davis Gas Processing/Denton Plant  | 1311      | 211111      | 675  | 675  |  |
| NM    | 15          | 350150008                 |      | Marathon Oil/Indian Basin Gas Plant  | 1321      | 211112      | 133  | 133  |  |
| NM    | 15          | 350150010                 |      | Navajo Refining Co/Artesia Refinery  | 2911      | 32411       | 45   | 45   |  |
| NM    | 45          | 350450902                 | 2451 | Public Service Co of New Mexico/San Juan Generating Station  | 4911      | 221112      | 4,741  | 4,741  |  |
| NM    | 7           | 350070001                 |      | Raton Pub. Service/Raton Power Plant   | 4911      | 221112      | 0  | 0  |  |
| NM    | 25          | 350250008                 |      | Southern Union Gas/Jal #3  | 1321      | 211112      | 1,319  | 1,319  |  |
| NM    | 25          | 350250051                 |      | Targa Midstream Services, LP/Eunice South Gas Plant  | 1321      | 211112      | 0  | 0  |  |
| NM    | 25          | 350250061                 |      | Targa Midstream Services, LP/Monument Plant [Old name: WARREN PETROLEUM/MONUMENT PLANT]                    | 1321      | 211112      | 771  | 771  |  |
| NM    | 25          | 350250063                 |      | Targa Midstream Services, LP/Saunders Plant [Old name: WARREN PETROLEUM/SAUNDERS PLANT]                    | 1321      | 211112      | 251  | 251  |  |
| NM    | 31          | 350310032                 | 87   | Tri-State Gen & Transmission/Escalante Station   | 4911      | 221112      | 1,257  | 1,257  |  |
| NM    | 45          | 350450247                 |      | Western Gas Resources/San Juan River Gas Plant   | 1321      | 211112      | 621  | 621  |  |
| NM    | 45          | 350450023                 |      | Western Refining Southwest Inc./San Juan Refinery (Bloomfield) [Old name: GIANT INDUSTRIES/BLOOMFIELD REF] | 2911      | 32411       | 6  | 6  |  |
| UT    | 49          | 10790                     |      | Brigham Young University -- Main Campus  | 8221      | 611310      | 99   | 99   |  |
| UT    | 11          | 10119                     |      | Chevron Products Co. -- Salt Lake Refinery   | 2911      | 324110      | 24   | 37   | 13   |
| UT    | 11          | 10122                     |      | Flying J Refinery -- (Big West Oil Company)  | 2911      | 324110      | 192  | 192  |  |

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| State | County FIPS | State Facility Identifier | ORIS | Plant Name  | Plant SIC | Plant NAICS | Reported 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | 2011 General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|---|-----------|-------------|--|--|--|
| UT    | 27          | 10313                     |      | Graymont Western US Inc. -- Cricket Mountain Plant  | 1422      | 212312      | 16   | 16   |  |
| UT    | 29          | 10007                     |      | Holcim-Devil's Slide Plant  | 3241      | 327310      | 344  | 390  | 46   |
| UT    | 11          | 10123                     |      | Holly Refining and Marketing Co. -- Phillips Refinery   | 2911      | 324110      | 131  | 440  | 309  |
| UT    | 27          | 10327                     | 6481 | Intermountain Power Service Corporation -- Intermountain Generation Station   | 4911      | 221112      | 4,934  | 4,934  |  |
| UT    | 35          | 10572                     |      | Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment   | 1021      | 212234      | 1,704  | 1,704  |  |
| UT    | 35          | 10346                     |      | Kennecott Utah Copper Corp. -- Smelter & Refinery   | 3331      | 331411      | 696  | 696  |  |
| 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      | 7,740  | 7,740  |  |
| UT    | 15          | 10237                     | 6165 | PacifiCorp -- Hunter Power Plant  | 4911      | 221112      | 4,661  | 4,661  |  |
| UT    | 15          | 10238                     | 8069 | PacifiCorp -- Huntington Power Plant  | 4911      | 221112      | 2,529  | 2,529  |  |
| UT    | 37          | 10034                     |      | Patara Midstream LLC (was EnCana Oil & Gas (USA) Incorporated and Tom Brown Incorporated) - Lisbon Natural Gas Processing Plant | 2911      | 211111      | 25   | 25   |  |
| UT    | 7           | 10096                     |      | Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility  | 4911      | 221112      | 544  | 544  |  |
| UT    | 35          | 10335                     |      | Tesoro West Coast -- Salt Lake City Refinery  | 2911      | 324110      | 795  | 795  |  |
| UT    | 43          | 10676                     |      | Utelite Corporation -- Shale processing   | 3295      | 212399      | 130  | 130  |  |
| WY    | 11          | 2                         |      | American Colloid Mineral Co -- East Colony  | 1459      | 212325      | 63   | 63   |  |

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| State | County FIPS | State Facility Identifier | ORIS  | Plant Name  | Plant SIC | Plant NAICS | Reported 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | 2011 General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|-------|---|-----------|-------------|--|--|--|
| WY    | 11          | 3                         |       | American Colloid Mineral Co -- West Colony                        | 1459      | 212325      | 50   | 50   |  |
| WY    | 5           | 45                        |       | Basin Electric -- Dry Fork Station                                | 4911      | 22112       | 279  | 279  |  |
| WY    | 31          | 1                         | 6204  | Basin Electric -- Laramie River Station                           | 4911      | 221112      | 9,402  | 9,402  |  |
| WY    | 5           | 2                         | 4150  | Black Hills Corporation - Neil Simpson I                          | 4911      | 22112       | 789  | 789  |  |
| WY    | 5           | 63                        | 7504  | Black Hills Corporation - Neil Simpson II                         | 4911      | 22112       | 542  | 542  |  |
| WY    | 45          | 5                         | 4151  | Black Hills Corporation - Osage Plant                             | 4911      | 22112       | 0  | 0  |  |
| WY    | 5           | 146                       | 55479 | Black Hills Corporation - Wygen I                                 | 4911      | 22112       | 559  | 559  |  |
| WY    | 5           | 225                       |       | Cheyenne Light Fuel and Power Company -- Wygen II                 | 4911      | 22112       | 215  | 215  |  |
| WY    | 5           | 281                       |       | Black Hills Corporation - Wygen III                               | 4911      | 221112      | 256  | 256  |  |
| WY    | 13          | 0009                      |       | Burlington Resources -- Bighorn Wells                             | 1300      | 21111       | 223  | 223  |  |
| WY    | 13          | 28                        |       | Burlington Resources -- Lost Cabin Gas Plant                      | 1311      | 211111      | 1,543  | 1,543  |  |
| WY    | 41          | 9                         |       | Chevron USA -- Carter Creek Gas Plant                             | 1311      | 211111      | 100  | 100  |  |
| 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      | 44   | 44   |  |
| 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       | 5  | 5  |  |

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| State | County FIPS | State Facility Identifier | ORIS | Plant Name   | Plant SIC | Plant NAICS | Reported 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | 2011 General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|--|-----------|-------------|--|--|--|
| WY    | 13          | 8                         |      | Devon Gas Services, L.P. -- Beaver Creek Gas Plant                   | 1311      | 211111      | 158  | 158  |  |
| WY    | 29          | 12                        |      | Encore Operating LP -- Elk Basin Gas Plant                           | 1311      | 211111      | 847  | 847  |  |
| WY    | 23          | 1                         |      | Exxon Mobil Corporation -- Labarge Black Canyon Facility             | 1300      | 21111       | 156  | 156  |  |
| WY    | 23          | 13                        |      | Exxon Mobil Corporation -- Shute Creek                               | 1311      | 211111      | 946  | 946  |  |
| WY    | 37          | 48                        |      | FMC Corp -- Green River Sodium Products (Westvaco facility)          | 2812      | 327999      | 2,876  | 2,876  |  |
| WY    | 37          | 49                        |      | FMC Wyoming Corporation -- Granger Soda Ash Plant                    | 1474      | 212391      | 189  | 189  |  |
| WY    | 21          | 1                         |      | Frontier Oil & Refining Company -- Cheyenne Refinery                 | 2911      | 32411       | 253  | 253  |  |
| WY    | 43          | 3                         |      | Hiland Partners, LLC -- Hiland Gas Plant                             | 1321      | 48621       | 45   | 45   |  |
| WY    | 29          | 7                         |      | Marathon Oil Co -- Oregon Basin Gas Plant                            | 1321      | 211112      | 247  | 247  |  |
| WY    | 29          | 0010                      |      | Marathon Oil Co -- Oregon Basin Wellfield                            | 1300      | 21111       | 96   | 96   |  |
| WY    | 37          | 8                         |      | Merit Energy Company - Brady Gas Plant (formerly Anadarko E&P Co LP) | 1321      | 211112      | 209  | 209  |  |
| 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       | 283  | 283  |  |
| WY    | 37          | 3                         |      | P4 Production, L.L.C. -- Rock Springs Coal Calcining Plant           | 3312      | 331111      | 706  | 706  |  |
| WY    | 9           | 1                         | 4158 | PacifiCorp - Dave Johnston Plant                                     | 4911      | 221112      | 11,306   | 11,306   |  |
| WY    | 37          | 1002                      | 8066 | PacifiCorp -- Jim Bridger Plant                                      | 4911      | 221112      | 9,689  | 9,689  |  |

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| State | County FIPS | State Facility Identifier | ORIS | Plant Name   | Plant SIC | Plant NAICS | Reported 2011 SO <sub>2</sub> Emissions (tons) | Adjusted 2011 SO <sub>2</sub> Emissions (tons) | 2011 General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|--|-----------|-------------|--|--|--|
| WY    | 23          | 4                         | 4162 | PacifiCorp -- Naughton Plant   | 4911      | 221112      | 20,461   | 20,461   |  |
| WY    | 5           | 46                        | 6101 | PacifiCorp -- Wyodak Plant   | 4911      | 221112      | 2,387  | 2,387  |  |
| WY    | 37          | 22                        |      | Simplot Phosphates LLC -- Rock Springs Plant                                       | 2874      | 325312      | 1,502  | 1,502  |  |
| WY    | 7           | 1                         |      | Sinclair Oil Company -- Sinclair Refinery  | 2911      | 32411       | 505  | 505  |  |
| WY    | 25          | 5                         |      | Sinclair Wyoming Refining Company -- Casper Refinery                               | 2911      | 32411       | 241  | 241  |  |
| WY    | 37          | 5                         |      | Solvay Chemicals -- Soda Ash Plant (Green River Facility)                          | 1474      | 325181      | 46   | 46   |  |
| 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      | 182  | 182  |  |
| WY    | 1           | 5                         |      | University of Wyoming - Heat Plant   | 8221      | 61131       | 187  | 187  |  |
| WY    | 45          | 1                         |      | Wyoming Refining -- Newcastle Refinery   | 2911      | 32411       | 324  | 324  |  |



**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*<br>NM | 001             | 00008             | GCC Rio Grande Cement                              | 1,103                               | Not subject to program after baseline revisions.** | 2008                  |
| ABQ<br>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.