



2007 Regional SO₂ Emissions and Milestone Report

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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 national parks and wilderness areas on the Colorado Plateau. Five states -- Arizona, New Mexico, Oregon, Utah, and Wyoming -- initially exercised this option by submitting plans to EPA by December 31, 2003. Oregon elected to cease participation in the program in 2006. The tribes were not subject to the deadline and still can opt into the program at any time. Under the Section 309 plans, the four participating states have tracked the emissions of the applicable stationary sources as part of the pre-trigger portion of the SO₂ Milestone and Backstop Trading Program. The Western Regional Air Partnership (WRAP) is assisting these states with the implementation and management of the regional emission reduction program.

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

This year, the four participating states have either revised their Section 309 plans or are currently in the process of revising their plans. The revised plans modified the annual regional milestone for 2007. Because two of the four states are currently operating under revised rules, this transition year report compares annual emissions to 2007 milestones under both the revised and 2003 plans. All states are expected to have revised plans by next year's report.

The four-state region milestone for 2007 is 422,194 tons under the original 2003 plans, and 420,637 tons under the revised plans. To determine whether or not the milestone was met, the 2005, 2006, and 2007 adjusted emissions were averaged, and this average was compared to the 2007 milestones. Oregon's emissions were removed from the 2005 emission totals before the average was calculated, to stay consistent with the 2006 and 2007 emissions total. The adjustments to reported emissions were required to allow the current emission estimates to be comparable to the emissions monitoring or calculation method used in the initial base year inventory (1999 for utilities and 1998 for all other sources).

The states of Arizona, New Mexico, Utah, and Wyoming reported 257,234 tons of SO₂ emissions for the calendar year 2007. The total emissions increased to 273,663 tons of SO₂ after making adjustments to account for changes in monitoring and calculation methods. The adjustments result in an additional 16,429 tons of SO₂ emissions, which is about 6% of the reported total emissions. Adjustments required for changes in Part 75, Acid Rain Program, flow monitor quality assurance methods account for about 15,225 tons (93%) of the increase in the estimate, with the remaining 1,204 tons from

Based on the adjusted milestone and emissions data, the average of 2005, 2006, and 2007 emissions is about 33% below the 2007 four state regional milestones.

other types of monitoring and calculation method changes. The adjusted emissions values for 2005 and 2006 were 288,040 tons and 279,134 tons, respectively. The 2007 adjusted emissions total of 273,663 tons was lower than both the 2005 and 2006 adjusted annual emissions. The average of 2005, 2006, and 2007 adjusted emissions is 280,279 tons.

Based on this average adjusted annual emissions estimate, a determination has been made that the four states have met the 2007 regional SO₂ milestone under both the 2003 and revised plans. The plans contain provisions to adjust the milestones to reflect variations in smelter operations, and 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 SIP requirements regarding adjustments to the milestones, the 2007 period requires a smelter adjustment under the 2003 plans (increasing the regional milestone by 2,000 tons); no smelter adjustment is required under the revised plans.

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 2006 to 2007 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 base year inventories is included in Appendix B.

Table ES-1
Overview of 2007 Regional Milestones and Emissions for Section 309 Participating States

| <u>2007 Sulfur Dioxide Milestones</u> | |
|---|---------------|
| Revised SIPs | |
| Regional 2007 Milestone* | 420,637 tons |
| Smelter-Specific Set-Aside* | 0 tons |
| Adjusted Four-State 2007 Milestone | 420,637 tons |
| 2003 SIPs | |
| Regional 2007 Milestone* | 420,194 tons |
| Smelter-Specific Set-Aside* | 2,000 tons |
| Adjusted Four-State 2007 Milestone | 422,194 tons |
| <u>2007 Sulfur Dioxide Emissions</u> | |
| Reported Four-State 2007 Emissions | 257,234 tons |
| Adjustments** | |
| Part 75 Flow RATA Procedures | 15,225 tons |
| Other Emission Monitoring and Calculation Methods | 1,204 tons |
| Adjusted Four-State 2007 Emissions | 273,663 tons |
| <u>Average Sulfur Dioxide Emissions (2005, 2006, & 2007)</u> | |
| Adjusted Four-State 2007 Emissions | 273,663 tons |
| Adjusted Four-State 2006 Emissions | 279,134 tons |
| Adjusted Four-State 2005 Emissions | 288,040 tons |
| Average of 2005, 2006, & 2007 Adjusted Four-State Emissions | 280,279 tons |
| <u>Comparison of Emissions to Milestone</u> | |
| Average of 2005, 2006, & 2007 Adjusted Four-State Emissions | 280,279 tons |
| Adjusted Four-State 2007 Milestone Revised SIPs | 420,637 tons |
| Adjusted Four-State 2007 Milestone 2003 SIPs | 422,194 tons |
| Difference (Negative Value = Emissions < Milestone) Revised SIPs | -140,358 tons |
| Difference (Negative Value = Emissions < Milestone) 2003 SIPs | -141,915 tons |
| 2005 – 2007 Emissions Average as Percent of 2007 Revised SIP Milestone | 67% |
| 2005 – 2007 Emissions Average as Percent of 2007 2003 SIP Milestone | 66% |

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

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

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2007 Regional SO₂ Emissions and Milestone Report

1.0 Introduction

1.1 Background

Under Section 309 of the federal Regional Haze Rule (40 CFR Part 51), nine western states and the tribes within those states have the option of submitting plans to reduce regional haze emissions that impair visibility at 16 Class I national parks and wilderness 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. Oregon has since elected to cease participation in the SO₂ Milestone and Backstop Trading Program by not resubmitting a Section 309 SIP. The tribes were not subject to this deadline and still can opt into the program at any time.

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

Under the milestone phase of the program, the states have established annual SO₂ 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 fifth 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 2007. Based on the first five 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), like the strategy based on the GCVTC recommendations.

How Have the WRAP States Responded to EPA Requirements?

Of the nine states (and tribes within those states) that have the option under Section 309 of participating in a regional strategy to reduce SO₂ emissions, five states 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 has opted out of submitting a revised Section 309 SIP under the modified RHR, which leaves four participating states. Utah and Wyoming have already submitted revised SIPs to EPA, and Arizona and New Mexico 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 four states:

1. Section 309(d)(4)(i) requires SO₂ 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 SO₂ emissions in order to ensure the SO₂ milestones are met. The SIP must commit to reporting to the WRAP as well as to EPA.
3. Section 309(d)(4)(iv) requires that a SIP contain criteria and procedures for activating the trading program within five years if an annual milestone is exceeded. A Section 309 SIP also must provide assessments in 2013 and 2018.

This report responds to Item 2, above, and provides the annual report that compares the 2007 emissions against the milestones for the states that have submitted Section 309 SIPs to EPA.

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

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

1. Reported regional SO₂ emissions (tons/year).
2. Adjustments to account for:
 - Changes in flow rate measurement methods;
 - 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 fifth report, 2005, 2006, and 2007 emissions are averaged.
4. Regional milestone adjustments to account for production increases at certain smelters.

How Is Compliance with the SO₂ Milestone Determined?

While the WRAP assists with the preparation of this report, each state reviews the information in the report, and proposes a draft determination that the regional SO₂ milestone has either been met or exceeded. The draft determination is then submitted for public review and comment during the first part of 2009, culminating in a final report sent to EPA by March 31, 2009.

SIP Transition Period and Milestones

The revised SIPs modified the annual regional milestone for 2007. Because only two of the four states are operating under revised rules, this report includes comparisons to milestones under both the revised and the 2003 SIPs. All states are expected to have revised SIPs by next year's report.

1.2 Report Organization

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

- Reported SO₂ Emissions in 2007;
- Monitoring Methodology Emissions Adjustments;
- Three-Year Average Emissions;
- Enforcement Milestone Adjustments;
- Smelter Milestone Adjustments;
- Quality Assurance (Including Source Change Information);
- Milestone Determination;
- Appendix A – Facility Emissions and Emissions Adjustments; and
- Appendix B – Changes to SO₂ Emissions and Milestone Source Inventory.

2.0 Reported SO₂ Emissions in 2007

All stationary sources with reported emissions of 100 tons or more per year in 2000 or any subsequent year are required to report annual SO₂ emissions. Table 1 summarizes the annual reported emissions from applicable sources in each state. The 2007 reported SO₂ emissions for each applicable source are in Appendix A, Table A-1.

**Table 1
 Reported 2007 SO₂ Emissions by State**

| State | Reported 2007 SO ₂ Emissions (tons/year) |
|------------|---|
| Arizona | 85,922 |
| New Mexico | 30,786 |
| Utah | 30,733 |
| Wyoming | 109,793 |
| TOTAL | 257,234 |

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 milestones. The adjustments account for any differences in emissions that result from changes in the monitoring or calculation methodology used in 2007 as compared to the methodology used to calculate baseline year emissions (1998 and 1999). The following sections detail what adjustments apply for 2007. Note that the revised Section 309 SIPs establish new milestones for 2008 – 2018 using an updated baseline of 2006. Therefore, the adjustments described in the following sections will not be performed in subsequent reports under the revised SIPs.

3.1 Changes in Part 75 Flow Rate Methodology

The Section 309 SIPs spell out three specific methods for adjusting Part 75 Acid Rain Program electric generating unit emissions due to changes in quality assurance procedures for the flow monitor component of SO₂ continuous emission monitoring systems. These changes involve the use of new flow reference methods in the Relative Accuracy Test Audit (RATA), which were not available in the 1999 baseline year. The use of these new methods (reference methods 2F, 2G, 2H, and 2J) are expected to result in a decrease in the SO₂ emissions measurement.

The three methods in the SIPs for adjusting for flow RATA reference method changes are outlined below:

1. Directly determine the difference in flow rate through a side-by-side comparison of data collected with the new and old flow reference methods during a RATA test.
2. Compare the annual average heat rate using Acid Rain heat input data (mmBtu) and total generation (MWhrs) as reported to the federal Energy Information Administration (EIA). Under this approach, the flow adjustment factor shall be calculated using the following ratio:

$$\frac{\text{Heat input/MW for first full year of data using new flow rate method}}{\text{Heat input/MW for last full year of data using old flow rate method}}$$

3. Compare the standard CFM per MW before and after the new flow reference method based on CEM data submitted in the Acid Rain Program, as follows:

$$\frac{\text{SCF/Unit of Generation for first full year of data using new flow rate method}}{\text{SCF/Unit of Generation for last full year of data using old flow rate method}}$$

New Mexico, Utah, Arizona, and Wyoming provided adjusted emissions for changes in the Part 75 flow RATA reference method for several plants: the Public Service Corp of New Mexico San Juan plant and the Tri-State Escalante plant in New Mexico; the PacifiCorp Carbon, Hunter, and Huntington plants and the Intermountain Power Service Corporation plant in Utah; the AEP CO Apache Station and Pinnacle West -- Cholla Generating Station in Arizona; and the PacifiCorp Dave Johnston, Jim Bridger, Naughton, and Wyodak plants in Wyoming. Changes in

the RATA flow reference method result in an upward adjustment for the 2007 SO₂ emissions of 15,225 tons.

The adjustment for each of these plants is listed below in Table 2. The Appendix table A-1 provides additional information on the flow RATA reference method changes, and which adjustment method was used for each plant.

Table 2
Adjustments for Changes in Part 75 Flow RATA

| State | Source | Reported 2007 SO ₂ Emissions (tons) | Flow RATA Adjustment (tons) | Adjusted 2007 SO ₂ Emissions (tons) |
|-------|---|--|-----------------------------|--|
| AZ | AEPCO -- Apache Station | 2,662 | 13 | 2,675 |
| AZ | Pinnacle West -- Cholla Generating Station | 23,522 | 128 | 23,650 |
| NM | Public Service Co. of New Mexico/San Juan Generating Station | 15,305 | 2,378 | 17,683 |
| NM | Tri-State Gen & Transmission/Escalante Station | 1,124 | 467 | 1,591 |
| UT | Intermountain Power Service Corporation -- Intermountain Generation Station | 4,764 | 24 | 4,788 |
| UT | PacifiCorp -- Carbon Power Plant | 6,511 | 1,026 | 7,537 |
| UT | PacifiCorp -- Hunter Power Plant | 6,672 | 986 | 7,658 |
| UT | PacifiCorp -- Huntington Power Plant | 4,351 | 580 | 4,931 |
| WY | PacifiCorp -- Dave Johnston | 21,356 | 4,435 | 25,791 |
| WY | PacifiCorp -- Jim Bridger | 19,053 | 1,433 | 20,486 |
| WY | PacifiCorp -- Naughton | 21,588 | 3,285 | 24,873 |
| WY | PacifiCorp -- Wyodak | 7,835 | 470 | 8,305 |

3.2 Changes in Emissions Monitoring and Calculation Methodology

In addition to the specific flow reference method related requirement for Part 75 program sources, there is also a general requirement to account for any changes in emissions monitoring or calculation methods. 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 (1999 for utilities and 1998 for all other sources). The net impact throughout the region as a result of these adjustments is an

increase of 1,204 tons from the reported 2007 emissions. Table 3 summarizes these results, and Appendix A provides additional source information. Some key aspects of the adjustments include:

- Utah adjusted their emissions upward by 338 tons.
- Wyoming adjusted their emissions downward by 284 tons.
- Arizona did not report any emissions adjustments.
- The city of Albuquerque, New Mexico reported that plant baseline emissions were incorrect for two facilities, which should not have been included in milestone calculations. In each case, the 1998 baseline emissions were based on the facility potential to emit, and not on reported emissions, which were less than 100 tons per year in 1998 and in each year since then. Thus, their emissions would not typically be included in this report, but until the milestones can be revised in the next SIP revision to correct the baseline error, these sources will be included and adjusted up to their potential to emit so that "paper decreases" in emissions are not counted towards meeting the milestones. The adjustment increased emissions by 1,150 tons.
- New Mexico did not have information on the baseline year emissions calculation and monitoring methodologies, and thus did not make any adjustments for facilities under the state's jurisdiction. The 1998 baseline year corresponded to a period when New Mexico's inventory relied on the sources to calculate and report emissions. Also, during that period, New Mexico prepared an emissions inventory every other odd year (1997 and 1999).

Table 3
Adjustments for Changes in Monitoring Methodology
(Albuquerque, New Mexico, Utah, and Wyoming)

| State | Source | Reported 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Monitoring Methodology Adjustment (tons) | Comment |
|-------|---|--|--|--|--|
| NM | GCC Rio Grande Cement | 16 | 1,103 | 1,087 | Facility potential to emit was used for the baseline year calculation. Adjustment is equal to the difference between reported and potential emissions. |
| NM | Southside Water Reclamation Plant | 57 | 120 | 63 | Facility potential to emit was used for the baseline year calculation. Adjustment is equal to the difference between reported and potential emissions. |
| UT | Chevron Products Co. -- Salt Lake Refinery | 1,104 | 1,085 | -19 | AP42 emission factor changed. In calculating flares, method changed from AP42 to engineering data. |
| UT | Graymont Western US Inc. -- Cricket Mountain Plant | 31 | 415 | 384 | AP42 emission factors changed. Method of calculating kiln emissions changed from permit limit to stack test. |
| UT | Tesoro West Coast -- Salt Lake City Refinery | 909 | 878 | -31 | Reported emissions include SO ₃ . SO ₃ was not included in 1998. |
| UT | Holly Ref. -- Phillips Refinery | 579 | 582 | 3 | Changed in the estimation method from AP42 in 1998 to CEM. |
| WY | Burlington Resources -- Lost Cabin Gas Plant | 2,461 | 2,459 | -2 | Change in the calculation method for emissions from the Train 3 sulfur pit. |
| WY | Solvay Chemicals -- Soda Ash Plant (Green River Facility) | 56 | 104 | 48 | Change in calculation method from base year. |
| WY | Sinclair Oil Company -- Sinclair Refinery | 1,035 | 705 | -330 | FCC unit used stack test and hours of operation in 1998; went to CEM in 2004. |

4.0 Three-Year Average Emissions (2005, 2006, and 2007)

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 2005 to 2007 is 280,279 tons. Table 4 shows the adjusted emissions for each year and three-year average emissions. The following report sections describe the adjusted milestone determination.

Table 4
Average Sulfur Dioxide Emissions (2005, 2006, & 2007)

| Year | Adjusted SO ₂ Emissions (tons/year) |
|---------------------------------------|--|
| 2005 | 288,040 |
| 2006 | 279,134 |
| 2007 | 273,663 |
| Three-Year Average (2005, 2006, 2007) | 280,279 |

5.0 Enforcement Milestone Adjustments

The SIPs require that each state report on proposed milestone adjustments that are 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 2007.

6.0 Smelter-Specific Set-Aside Milestone Adjustments

Smelter Adjustment Scenarios

Each state or tribe determines the amount of facility specific set-aside, if any, that will be added to the milestone to account for operational increases at the remaining smelters in the region. This set-aside is only available for use if the annual sulfur input and emissions from the copper smelter is above the baseline levels listed in the applicable SIP. The increase to the milestone is based on a smelter's proportional increase above its baseline sulfur input.

The revised Section 309 SIPs establish new updated milestones for the years 2008 – 2018. This update revised the baseline year, and also changed the smelter-specific set-aside table. For purposes of this milestone report, both the old and new baseline year and smelter specific set-asides were used to calculate 2007 milestones consistent with both SIP methodologies.

2007 Smelter Adjustment Under the 2003 SIPs

A comparison of smelter 2007 emissions to baseline levels in the milestone section of the 2003 SIPs is provided in Table 5, and shows that the Phelps Dodge Miami smelter in Arizona is the only operating smelter with reported 2007 SO₂ emissions above the baseline emissions.

Table 5
Smelter 2007 SO₂ Emissions and Baseline SO₂ Emissions

| State | Source | Reported 2007 SO ₂ Emissions (tons) | SO ₂ Baseline Emissions (tons) |
|-------|----------------------|--|---|
| AZ | BHP San Manuel | 0 | 16,000 |
| AZ | Asarco Hayden | 20,339 | 23,000 |
| AZ | Phelps Dodge Miami | 9,111 | 8,000 |
| NM | Phelps Dodge Hurley | 0 | 16,000 |
| NM | Phelps Dodge Hidalgo | 0 | 22,000 |
| UT | Kennecott Salt Lake | 975 | 1,000 |

The sulfur throughput for the Phelps Dodge Miami smelter in 2007 was also greater than the baseline throughput, triggering the smelter adjustment. The emissions and throughput comparisons, and the smelter adjustment calculation for Phelps Dodge Miami are shown in Table 6. The adjustment based on a comparison of 2007 sulfur throughput to baseline sulfur throughput is 2,480 tons. This is greater than the available set-aside of 2,000 tons, and thus only an amount up to the 2,000 tons set-aside is allowable per the Arizona SIP.

Table 6
Phelps Dodge Miami -- Smelter Adjustment

| <u>SO₂ Emission Comparison</u> | |
|--|--------------|
| 2007 Reported Emissions..... | 9,111 tons |
| Baseline Emissions..... | 8,000 tons |
| 2007 Emissions Increase from Baseline..... | 1,111 tons |
| <u>Sulfur Throughput Comparison</u> | |
| 2007 Sulfur Throughput..... | 274,150 tons |
| Baseline Sulfur Throughput*..... | 208,700 tons |
| 2007 Sulfur Throughput Increase from Baseline..... | 65,450 tons |
| 2007 Sulfur Throughput Increase as a Fraction of Baseline Sulfur Throughput..... | 0.31 |
| <u>Smelter Adjustment</u> | |
| 2007 Calculated Adjustment (Baseline Emissions x Sulfur Increase as a Fraction of Baseline)**..... | 2,480 tons |
| Smelter Set-Aside*..... | 2,000 tons |
| 2007 Adjustment (The Lesser of the 2007 Calculated Adjustment or Set-Aside)**..... | 2,000 tons |

* See the Arizona SIP, Table 8-3 (Table 3 in the 2003 Model SIP).

** See Arizona SIP, Section 8.1.3(4)(e).

2007 Smelter Adjustment -- Revised SIPs

The smelter baseline has decreased, from 86,000 tons SO₂ in the 2003 SIPs to 24,000 tons SO₂ in the revised SIPs, due to the permanent closure of the BHP San Manuel, Phelps Dodge Chino, and Phelps Dodge Hidalgo smelters. The revised set-aside is only available if sulfur input and emissions from an individual copper smelter is above the baseline level listed in Table 7 in any particular year as a result of increased capacity. The Phelps Dodge Miami smelter is not included in Table 7 because the smelter is currently operating at its permitted limit, and therefore does not have a smelter-specific set-aside.

Table 7
Revised SIP -- Smelter Baselines and Set-Aside

| State | Source | Baseline Sulfur Input (tons S) | Baseline Allocation (tons SO ₂) | Smelter-Specific Set-Aside (tons SO ₂) |
|-------|---------------------|--------------------------------|---|--|
| AZ | Asarco Hayden | 235,000 | 23,000 | 3,000 |
| UT | Kennecott Salt Lake | 340,269 | 1,000 | 100 |
| Total | | 575,269 | 24,000 | 3,100 |

A smelter set-aside is not available for 2007 under the revised SIPs. The 2007 emissions from the Asarco Hayden and Kennecott smelters (see Table 6) are below the baseline allocations in Table 7.

7.0 Quality Assurance

The states provided 2007 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.

7.1 Source Change Report

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

- 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.

No sources were added to the program inventory in 2007. Phelps Dodge Hidalgo smelter and Phelps Dodge Hurley smelter/concentrator were both closed in 2006, but are being included in the inventory for the smelter adjustment. Appendix B provides a list of all sources added or removed from the program inventory in previous reporting years. Table 8 provides explanations for the emissions variations from 2006 – 2007 that are greater than 20%. Plants with variations greater than 20%, but reported emissions of less than 20 tons, are not included in Table 8. Information on these plants is provided in Appendix A.

Table 8
Sources with an Emissions Change of > ± 20% from the Previous Year

| State | County FIPS Code | State Facility ID | Reported 2006 SO ₂ Emissions (tons) | Reported 2007 SO ₂ Emissions (tons) | Facility Name | Reason for Change |
|-------|------------------|-------------------|--|--|---|--|
| AZ | 017 | 1807 | 1,895 | 1,504 | Abitibi -- Snowflake Pulp Mill | Used low sulfur coal. |
| AZ | 019 | 2869 | 7 | 48 | Arizona Portland Cement | Emissions based on factor derived from performance test. |
| AZ | 007 | 2435 | 16,088 | 20,339 | Asarco -- Hayden Smelter | Increase in operations without increase in capacity. |
| AZ | 015 | 5992 | 1,047 | 1,979 | CLC -- Nelson Lime Plant | Increase in operations without increase in capacity. |
| AZ | 007 | 5992 | 6,383 | 9,111 | Phelps Dodge -- Miami Smelter | Increase in operations without increase in capacity. |
| AZ | 001 | 4477 | 13,520 | 16,882 | SRP -- Coronado Generating Station | Scrubber downtime reduced control efficiency. |
| NM | 015 | 350150024 | 263 | 65 | Agave Energy/Agave Dagger Draw Gas Plant | Plant burned only sweet gas after back field explosion. |
| NM | 015 | 350150011 | 162 | 68 | DCP Midstream/Artesia Gas Plant | Acid Gas Injection system installed in 2006 has significantly lowered emissions. |
| NM | 025 | 350250035 | 1,558 | 253 | DCP Midstream/Linam Ranch Gas Plant [Old name: GPM GAS/LINAM RANCH GAS PLANT] | Plant did not have any shut downs, and implemented revised upset procedures. |
| NM | 031 | 350310008 | 840 | 1,278 | Giant Industries/Ciniza Refinery [Old name: GIANT REFINING/CINIZA] | Production increased with higher heater and boiler utilization rates. Installed a CEMS on flare gas line which increased ability to monitor SO ₂ emissions. |
| NM | 025 | 350250007 | 1,125 | 354 | J L Davis Gas Processing/Denton Plant | The reason for the change has not been reported. |

(cont.)

Table 8
Sources with an Emissions Change of > ± 20% from the Previous Year (cont.)

| State | County FIPS Code | State Facility ID | Reported 2006 SO ₂ Emissions (tons) | Reported 2007 SO ₂ Emissions (tons) | Facility Name | Reason for Change |
|-------|------------------|-------------------|--|--|--|--|
| NM | 015 | 350150010 | 160 | 62 | Navajo Refining Co/Artesia Refinery | Changes in inlet gas composition, better maintenance, and decrease in plant upsets. |
| NM | 007 | 350070001 | 149 | 0 | Raton Pub. Service/Raton Power Plant | Did not operate in 2007. |
| NM | 025 | 350250008 | 1,435 | 2,895 | Sid Richardson Gasoline/Jal #3 | SRU malfunctions caused significant emission events. |
| NM | 025 | 350250063 | 277 | 335 | Targa Midstream Services/ Saunders Plant [Old names: Dynegy Midstream Services/ Saunders Plant; WARREN PETROLEUM/SAUNDERS PLANT] | SRU was shut down part of the year to change catalyst, and all acid gas was flared during the shut down. Gas composition had higher S content in 2007. |
| UT | 011 | 10119 | 2,201 | 1,174 | Chevron Products Co. -- Salt Lake Refinery | Company added a tail gas treating unit and a vacuum gas oil hydro treating unit to their process. |
| UT | 049 | 10796 | 118 | 0 | Geneva Steel -- Steel Manufacturing Facility | Company has gone out of business, and the plant equipment dismantled. |
| UT | 011 | 10123 | 478 | 579 | Holly Refining and Marketing Co. -- Phillips Refinery | Source test changed due to a change in the heating value of the fuel, and breakdown emissions also increased. |
| UT | 035 | 10346 | 737 | 976 | Kennecott Utah Copper Corp. -- Smelter & Refinery | Increase in operational hours of various equipment, and changes in the fuel sulfur content. |
| UT | 015 | 10238 | 17,402 | 4,351 | PacifiCorp. -- Huntington Power Plant | FGD control installed and operated on Boiler 2. Boiler 2 also increased operation -- 1,939 more hours than in 2006. |

(cont.)

Table 8
Sources with an Emissions Change of > ± 20% from the Previous Year (cont.)

| State | County FIPS Code | State Facility ID | Reported 2006 SO ₂ Emissions (tons) | Reported 2007 SO ₂ Emissions (tons) | Facility Name | Reason for Change |
|-------|------------------|-------------------|--|--|--|---|
| UT | 007 | 10096 | 858 | 447 | Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility | Source test showed decreased emission rate due to increase in scrubber limestone and decrease in fuel burned. |
| WY | 041 | 0012 | 2,257 | 1,205 | BP America -- Whitney Canyon Gas Plant | Emissions decreased due to reduced inlet gas rates, and permanent shutdown of the main plant on September 4, 2007. |
| WY | 013 | 0028 | 1,715 | 2,461 | Burlington Resources -- Lost Cabin Gas Plant | Increased emissions primarily caused by problems with the Train 3 SRU reaction furnace and the SRU combustions air blowers. |
| WY | 041 | | 219 | 1 | Chevron -- Whitney Canyon Carter Creek Well Field | Emissions decreased due to decreased field flaring. |
| WY | 041 | 0009 | 205 | 46 | Chevron USA -- Carter Creek Gas Plant | There was no plant turnaround in 2007, a decrease in maintenance issues, and decrease in flaring. |
| WY | 013 | | 57 | 6 | Devon Energy -- Beaver Creek Field | Emissions decreased due to decreased field flaring. |
| WY | 023 | 0013 | 2,205 | 846 | Exxon -- Shute Creek Treating Facility | Emissions decreased due to shut down of the tail gas incinerators. |
| WY | 037 | 0010 | 161 | 249 | FMC Wyoming Corp. -- Granger Soda Ash Plant | Increase in emissions due to increased soda ash production. |
| WY | 029 | 0007 | 447 | 348 | Marathon Oil Co. -- Oregon Basin Gas Plant | Increased length of annual plant turnaround resulted in more untreated acid gas incineration and increase in emissions. Increase offset by decrease due to boiler downtime. |
| WY | 029 | | 265 | 164 | Marathon Oil Co. -- Oregon Basin Field | Decreased plant downtime resulted in decreased flaring and emissions. |
| WY | 015 | 0001 | 143 | 202 | The Western Sugar Cooperative -- Torrington Plant | Increase in emissions due to increased sulfur content of coal. |

7.2 Part 75 Data

Federal Acid Rain Program emissions monitoring data (required by 40 CFR Part 75) were used to check reported power plant emissions, and whether or not a monitoring method adjustment was required for changes in Part 75 quality assurance procedures as described in section 3.1 of this report.

Sources in the region subject to Part 75 emitted about 67% of the region's reported emissions in 2007. 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.

We also queried EPA's database for the Acid Rain Program to obtain the flow reference method used in the RATAs reported by the plants since the 1999 baseline year. This information was used to check if there had been a change in flow reference methods since the 1999 baseline year. Adjustments were consistent with the reference method data and previous reports.

8.0 Milestone Determination

The 2007 milestone based on the revised SIPs is 420,637 tons. No adjustment is required for changes in smelter operation.

The 2007 milestone was also determined based on the 2003 SIPs. First, the 682,000 ton regional milestone is adjusted for states and tribes that have not opted to participate in the 309 program by subtracting the amount for each state or tribe. The milestone is also adjusted to account for changes in smelter operations. No adjustment is required for enforcement actions. This results in an adjusted milestone of 422,194 tons. Table 9 shows each element of the 2007 milestone calculation under the 2003 SIPs.

The average of 2005, 2006 and 2007 adjusted emissions were determined to be 280,279 tons. Therefore, the participating states have met the milestones in the revised SIPs and 2003 SIPs (420,637 and 422,194 tons respectively).

9.0 Public Comments

Arizona, New Mexico, Utah, and Wyoming each published a draft of this report for public review and comment. There were no public comments.

Table 9
Regional 2007 SO₂ Emissions Milestone for the Four States -- Based on 2003 SIPs

| | |
|--|--------------|
| Base Regional 2007 Milestone* | 682,000 tons |
| Milestone Adjustments* | |
| States and Tribes Not Participating in the Backstop Program: | |
| California | -37,784 tons |
| Colorado | -98,897 tons |
| Idaho | -18,016 tons |
| Nevada | -20,187 tons |
| Oregon | -26,268 tons |
| Shoshone-Bannock Tribe of the Fort Hall Reservation | -4,994 tons |
| Navajo Nation..... | -53,147 tons |
| Ute Indian Tribe of the Uintah and Ouray Reservation | -1,129 tons |
| Wind River Reservation | -1,384 tons |
| Smelter Set-Aside* | 2,000 tons |
| Enforcement | 0 tons |
| Adjusted Four-State 2007 Milestone | |
| (Arizona, New Mexico, Utah, Wyoming) | 422,194 tons |

* See the Regional Milestones section of each state's 2003 Section 309 SIP.

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Appendix A

**Table A-1
2007 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 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Part 75 Flow RATA Emission Adjustment (tons) | General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|--|-----------|-------------|--|--|--|---|
| AZ | 017 | 1807 | | Abitibi -- Snowflake Pulp Mill | 2621 | 322121 | 1,504 | 1,504 | | |
| AZ | 003 | 3532 | 160 | AEPCO -- Apache Generating Station | 4911 | 221112 | 2,662 | 2,675 | 13 | |
| AZ | 019 | 2869 | | Arizona Portland Cement | 3241 | 32731 | 48 | 48 | | |
| AZ | 007 | 2435 | | Asarco -- Hayden Smelter | 3331 | 331411 | 20,339 | 20,339 | | |
| AZ | 021 | 15582 | | BHP -- San Manuel Smelter | 3331 | 331411 | 0 | 0 | | |
| AZ | 003 | 2148 | | CLC -- Douglas Lime Plant | 3274 | 32741 | 963 | 963 | | |
| AZ | 015 | 5992 | | CLC -- Nelson Lime Plant | 3274 | 32741 | 1,979 | 1,979 | | |
| AZ | 007 | 5129 | | Phelps Dodge -- Miami Smelter | 3331 | 331411 | 9,111 | 9,111 | | |
| AZ | 025 | 2393 | | Phoenix Cement | 3241 | 32731 | 7 | 7 | | |
| AZ | 017 | 447 | 113 | Pinnacle West -- Cholla Generating Station | 4911 | 221112 | 23,522 | 23,650 | 128 | |
| AZ | 001 | 4477 | 6177 | SRP -- Coronado Generating Station | 4911 | 221112 | 16,882 | 16,882 | | |
| AZ | 019 | | 126 | TEP -- Irvington Generating Station | 4911 | 221112 | 2,908 | 2,908 | | |
| AZ | 001 | 3222 | 8223 | TEP -- Springerville Generating Station | 4911 | 221112 | 5,997 | 5,997 | | |
| NM | 015 | 350150024 | | Agave Energy/Agave Dagger Draw Gas Plant | 1311 | 211111 | 65 | 65 | | |
| NM | 015 | 350150002 | | BP America Production/Empire Abo Plant [Old Name: Arco Permian/Empire Abo Plant] | 1321 | 211112 | 300 | 300 | | |
| NM | 015 | 350150011 | | DCP Midstream/Artesia Gas Plant | 1321 | 211112 | 68 | 68 | | |
| NM | 025 | 350250044 | | DCP Midstream/Eunice Gas Plant [Old Name: GPM GAS EUNICE GAS PLANT] | 1321 | 211112 | 1,063 | 1,063 | | |

(cont.)

**Table A-1
2007 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 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Part 75 Flow RATA Emission Adjustment (tons) | General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|--|-----------|-------------|--|--|--|---|
| NM | 025 | 350250035 | | DCP Midstream/Linam Ranch Gas Plant [Old Name: GPM GAS/LINAM RANCH GAS PLANT] | 1321 | 211112 | 253 | 253 | | |
| NM | 025 | 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 | | Dynegy Midstream Services/Eunice Gas Plant [Old Name: WARREN PETROLEUM/EUNICE GAS PLANT] | 1321 | 211112 | 2,355 | 2,355 | | |
| NM | 025 | 350250004 | | Frontier Field Services/Maljamar Gas Plant | 1321 | 211112 | 2,520 | 2,520 | | |
| NM | 001 | 00008 | | GCC Rio Grande Cement | 3241 | 327310 | 16 | 1,103 | | 1,087 |
| NM | 031 | 350310008 | | Giant Industries/Ciniza Refinery (Gallup) [Old Name: GIANT REFINING/CINIZA] | 2911 | 32411 | 1,278 | 1,278 | | |
| NM | 025 | 350250007 | | J L Davis Gas Processing/Denton Plant | 1311 | 211111 | 354 | 354 | | |
| NM | 015 | 350150008 | | Marathon Oil/Indian Basin Gas Plant | 1321 | 211112 | 680 | 680 | | |
| NM | 015 | 350150010 | | Navajo Refining Co/Artesia Refinery | 2911 | 32411 | 62 | 62 | | |
| NM | 023 | 350230003 | | Phelps Dodge Hidalgo Smelter | 3331 | 331411 | 0 | 0 | | |
| NM | 017 | 350170001 | | Phelps Dodge Hurley Smelter/Concentrator | 3331 | 331411 | 0 | 0 | | |
| NM | 045 | 350450902 | 2451 | Public Service Co. of New Mexico/ San Juan Generating Station | 4911 | 221112 | 15,305 | 17,683 | 2,378 | |
| NM | 007 | 350070001 | | Raton Pub. Service/Raton Power Plant | 4911 | 221112 | 0 | 0 | | |
| NM | 025 | 350250008 | | Sid Richardson Gasoline/Jal #3 | 1321 | 211112 | 2,895 | 2,895 | | |
| NM | 001 | 00145 | | Southside Water Reclamation Plant | 4952 | 22132 | 57 | 120 | | 63 |
| NM | 025 | 350250051 | | Targa Midstream Services/Eunice South Gas Plant | 1321 | 211112 | 0 | 0 | | |

(cont.)

**Table A-1
2007 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 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Part 75 Flow RATA Emission Adjustment (tons) | General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|---|-----------|-------------|--|--|--|---|
| NM | 025 | 350250061 | | Targa Midstream Services/Monument Plant [Old Name: WARREN PETROLEUM/MONUMENT PLANT] | 1321 | 211112 | 1,235 | 1,235 | | |
| NM | 025 | 350250063 | | Targa Midstream Services/Saunders Plant [Old Name: WARREN PETROLEUM/SAUNDERS PLANT] | 1321 | 211112 | 335 | 335 | | |
| NM | 031 | 350310032 | 87 | Tri-State Gen & Transmission/Escalante Station | 4911 | 221112 | 1,124 | 1,591 | 467 | |
| NM | 045 | 350450247 | | Western Gas Resources/San Juan River Gas Plant | 1321 | 211112 | 393 | 393 | | |
| NM | 045 | 350450023 | | Western Refining Southwest Inc./San Juan Refinery (Bloomfield) [Old Name: GIANT INDUSTRIES/BLOOMFIELD REF] | 2911 | 32411 | 428 | 428 | | |
| UT | 049 | 10790 | | Brigham Young University -- Main Campus | 8221 | 611310 | 97 | 97 | | |
| UT | 027 | 10311 | | Brush Resources Inc. -- Delta Mill | 1099 | 212299 | 0 | 0 | | |
| UT | 011 | 10119 | | Chevron Products Co. -- Salt Lake Refinery | 2911 | 324110 | 1,104 | 1,085 | | -19 |
| UT | 037 | 10034 | | EnCana Oil & Gas (USA) Incorporated [Old Name: Tom Brown Incorporated] -- Lisbon Natural Gas Processing Plant | 2911 | 211111 | 97 | 97 | | |
| UT | 011 | 10122 | | Flying J Refinery -- (Big West Oil Company) | 2911 | 324110 | 390 | 390 | | |
| UT | 027 | 10313 | | Graymont Western US Inc. -- Cricket Mountain Plant | 1422 | 212312 | 31 | 415 | | 384 |
| UT | 029 | 10007 | | Holcim -- Devil's Slide Plant | 3241 | 327310 | 454 | 454 | | |
| UT | 011 | 10123 | | Holly Refining and Marketing Co. -- Phillips Refinery | 2911 | 324110 | 579 | 582 | | 3 |
| UT | 027 | 10327 | 6481 | Intermountain Power Service Corporation -- Intermountain Generation Station | 4911 | 221112 | 4,764 | 4,788 | 24 | |
| UT | 035 | 10572 | | Kennecott Utah Copper Corp. -- Power Plant/Lab/Tailings Impoundment | 1021 | 212234 | 3,207 | 3,207 | | |

(cont.)

Table A-1
2007 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 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Part 75 Flow RATA Emission Adjustment (tons) | General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|-------|--|-----------|-------------|--|--|--|---|
| UT | 035 | 10346 | | Kennecott Utah Copper Corp. -- Smelter & Refinery | 3331 | 331411 | 976 | 976 | | |
| UT | 007 | 10081 | 3644 | PacifiCorp. -- Carbon Power Plant | 4911 | 221112 | 6,511 | 7,537 | 1,026 | |
| UT | 015 | 10237 | 6165 | PacifiCorp. -- Hunter Power Plant | 4911 | 221112 | 6,672 | 7,658 | 986 | |
| UT | 015 | 10238 | 8069 | PacifiCorp. -- Huntington Power Plant | 4911 | 221112 | 4,351 | 4,931 | 580 | |
| UT | 007 | 10096 | | Sunnyside Cogeneration Associates -- Sunnyside Cogeneration Facility | 4911 | 221112 | 447 | 448 | | 1 |
| UT | 035 | 10335 | | Tesoro West Coast -- Salt Lake City Refinery | 2911 | 324110 | 909 | 878 | | -31 |
| UT | 043 | 10676 | | Utelite Corporation -- Shale Processing | 3295 | | 144 | 144 | | |
| WY | 011 | 0002 | | American Colloid Mineral Co. -- East Colony | 1459 | 212325 | 65 | 65 | | |
| WY | 011 | 0003 | | American Colloid Mineral Co. -- West Colony | 1459 | 212325 | 46 | 46 | | |
| WY | 037 | 0008 | | Anadarko E&P Co. LP -- Brady Gas Plant | 1321 | 211112 | 90 | 90 | | |
| WY | 037 | | | Anadarko E&P Co. L.P. -- Table Rock Gas Plant | 1321 | | 153 | 153 | | |
| WY | 031 | 0001 | 6204 | Basin Electric -- Laramie River Station | 4911 | 221112 | 10,387 | 10,387 | | |
| 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 | 984 | 984 | | |
| WY | 005 | 0063 | 7504 | Black Hills Corporation -- Neil Simpson II | 4911 | 22112 | 613 | 613 | | |
| WY | 045 | 0005 | 4151 | Black Hills Corporation -- Osage Plant | 4911 | 22112 | 2,994 | 2,994 | | |
| WY | 005 | 0146 | 55479 | Black Hills Corporation -- Wygen 1 | 4911 | 22112 | 688 | 688 | | |
| WY | 041 | 0012 | | BP America Production Company -- Whitney Canyon Gas Plant | 1311 | 211111 | 1,205 | 1,205 | | |
| WY | 041 | | | BP America Production Company -- Whitney Canyon WellField | 1311 | | 3 | 3 | | |

(cont.)

Table A-1
2007 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 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Part 75 Flow RATA Emission Adjustment (tons) | General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|---|-----------|-------------|--|--|--|---|
| WY | 013 | | | Burlington Resources -- Bighorn Wells | 1311 | | 0 | 0 | | |
| WY | 013 | 0028 | | Burlington Resources -- Lost Cabin Gas Plant | 1311 | 211111 | 2,461 | 2,459 | | -2 |
| WY | 041 | 0009 | | Chevron USA -- Carter Creek Gas Plant | 1311 | 211111 | 46 | 46 | | |
| WY | 037 | | | Chevron USA -- Table Rock Field | 1311 | | 328 | 328 | | |
| WY | 041 | | | Chevron USA -- Whitney Canyon/Carter Creek Wellfield | 1311 | | 1 | 1 | | |
| WY | 013 | | | Devon Energy Production Co., L.P. -- Beaver Creek Gas Field | | | 6 | 6 | | |
| WY | 013 | 0008 | | Devon Gas Services, L.P. -- Beaver Creek Gas Plant | 1311 | 211111 | 84 | 84 | | |
| WY | 023 | | | Exxon Mobil Corporation -- Labarge Black Canyon Facility | 1311 | | 133 | 133 | | |
| WY | 023 | 0013 | | Exxon Mobil Corporation -- Shute Creek | 1311 | 211111 | 846 | 846 | | |
| WY | 037 | 0048 | | FMC Corp. -- Green River Sodium Products (Westvaco facility) | 2812 | 327999 | 4,234 | 4,234 | | |
| WY | 037 | 0049 | | FMC Wyoming Corporation -- Granger Soda Ash Plant | 1474 | 212391 | 249 | 249 | | |
| WY | 021 | 0001 | | Frontier Oil & Refining Company -- Cheyenne Refinery | 2911 | 32411 | 1,033 | 1,033 | | |
| WY | 037 | 0002 | | General Chemical -- Green River Plant (Facility Name: General Chemical) | 1474 | 327999 | 5,701 | 5,701 | | |
| WY | 043 | 0003 | | Hiland Partners, L.L.C. -- Hiland Gas Plant | 1321 | 48621 | 145 | 145 | | |
| WY | 029 | 0012 | | Howell Petroleum Corp. -- Elk Basin Gas Plant | 1311 | 211111 | 1,309 | 1,309 | | |
| WY | 029 | 0007 | | Marathon Oil Co. -- Oregon Basin Gas Plant | 1321 | 211112 | 348 | 348 | | |
| WY | 029 | | | Marathon Oil Co. -- Oregon Basin Wellfield | | | 164 | 164 | | |

(cont.)

A-5

Table A-1
2007 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 2007 SO ₂ Emissions (tons) | Adjusted 2007 SO ₂ Emissions (tons) | Part 75 Flow RATA Emission Adjustment (tons) | General New Monitoring Calculation Method Adjustment (tons) |
|-------|-------------|---------------------------|------|--|-----------|-------------|--|--|--|---|
| WY | 001 | 0002 | | Mountain Cement Company -- Laramie Plant | 3241 | 23571 | 94 | 94 | | |
| WY | 037 | 0003 | | P4 Production, L.L.C. -- Rock Springs Coal Calcining Plant | 3312 | 331111 | 653 | 653 | | |
| WY | 009 | 0001 | 4158 | Pacificorp. -- Dave Johnston Plant | 4911 | 221112 | 21,356 | 25,791 | 4,435 | |
| WY | 037 | 1002 | 8066 | PacifiCorp. -- Jim Bridger Plant | 4911 | 221112 | 19,053 | 20,486 | 1,433 | |
| WY | 023 | 0004 | 4162 | PacifiCorp. -- Naughton Plant | 4911 | 221112 | 21,588 | 24,873 | 3,285 | |
| WY | 005 | 0046 | 6101 | PacifiCorp. -- Wyodak Plant | 4911 | 221112 | 7,835 | 8,305 | 470 | |
| WY | 037 | 0022 | | Simplot Phosphates L.L.C. -- Rock Springs Plant | 2874 | 325312 | 2,052 | 2,052 | | |
| WY | 007 | 0001 | | Sinclair Oil Company -- Sinclair Refinery | 2911 | 32411 | 1,035 | 705 | | -330 |
| WY | 025 | 0005 | | Sinclair Wyoming Refining Company -- Casper Refinery | 2911 | 32411 | 792 | 792 | | |
| WY | 037 | 0010 | | Solvay Chemicals -- Soda Ash Plant (Green River Facility) | 1474 | | 56 | 104 | | 48 |
| WY | 015 | 0001 | | The Western Sugar Cooperative -- Torrington Plant | 2063 | 311313 | 202 | 202 | | |
| WY | 001 | 0005 | | University of Wyoming -- Heat Plant | 8221 | 61131 | 71 | 71 | | |
| WY | 045 | 0001 | | Wyoming Refining -- Newcastle Refinery | 2911 | 32411 | 690 | 690 | | |

Appendix B

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

| State | County FIP Code | State Facility ID | Facility Name | Report Year of Change |
|-------|-----------------|-------------------|--|-----------------------|
| UT | 043 | 10676 | Utelite Corporation -- Shale processing | 2003 |
| WY | 011 | 0002 | American Colloid Mineral Company -- East Colony | 2003 |
| WY | 011 | 0003 | American Colloid Mineral Company -- West Colony | 2003 |
| WY | 037 | | Anadarko E&P Company LP -- Table Rock Gas Plant | 2003 |
| WY | 005 | 0146 | Black Hills Corporation -- Wygen 1 | 2003 |
| WY | 041 | | BP America Production Company -- Whitney Canyon Well Field | 2003 |
| WY | 013 | | Burlington Resources -- Bighorn Wells | 2003 |
| WY | 037 | | Chevron USA -- Table Rock Field | 2003 |
| WY | 041 | | Chevron USA -- Whitney Canyon/Carter Creek Wellfield | 2003 |
| WY | 013 | 0008 | Devon Energy Corp. -- Beaver Creek Gas Plant | 2003 |
| WY | 035 | | Exxon Mobil Corporation -- Labarge Black Canyon Facility (also identified as Black Canyon Dehy Facility) | 2003 |
| AZ | 019 | 2869 | Arizona Portland Cement | 2004 |
| WY | 013 | | Devon Energy Corp. -- Beaver Creek Gas Field | 2004 |

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

| State | County FIP Code | State Facility ID | Facility Name | 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 |
| AZ | 021 | 15582 | BHP -- San Manuel Smelter | 10,409 | Facility is permanently closed. | 2004 |
| 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 |