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**SECTION 309 REGIONAL HAZE
STATE IMPLEMENTATION PLAN ELEMENT:

ALBUQUERQUE-BERNALILLO COUNTY,
NEW MEXICO**

**FINAL DRAFT
Main Document**

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City of Albuquerque Environmental Health Department
Air Quality Division
Control Strategies Section

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PREFACE

This request [~~is~~] was first submitted pursuant to the U.S. Environmental Protection Agency (EPA) requirements published as a Federal Register notice (FR Vol. 64, No. 126) on Thursday, July 1, 1999. The documentation in this report addresses requirements found in Part 51, Appendix V relating to completeness of State Implementation Plan (SIP) submissions. This report was [~~taken to~~] first presented at a public hearing before the Albuquerque-Bernalillo County Air Quality Control Board (AQCB) held on October 8, 2003 and continued on November 12, 2003. Appropriate public notices and opportunities for public comment were provided. The AQCB adopted the initial Regional Haze SIP on November 12, 2003.

In 1999 the first regulation to address the type of visibility impairment known as Regional haze was promulgated by EPA. Since that time it has been judicially challenged twice. On May 24, 2002, the U.S. Court of Appeals for the District of Columbia Circuit issued a ruling vacating the Regional Haze Rule in part and sustaining it in part, based on a finding that EPA's prescribed methods for determining best available retrofit technology (BART) were inconsistent with the Clean Air Act (CAA). American Corn Growers Association v. EPA, [291 F.3d 1 (DC Cir. 2002)]. EPA finalized a rule on July 6, 2005 addressing the court's ruling in this case [FR Vol. 70 No. 128 39104-39172]. On February 18, 2005, the U.S. Court of Appeals for the District of Columbia Circuit issued another ruling, in Center for Energy and Economic Development (CEED) v. EPA, [398 F.3d 653(DC Cir. 2005)], granting a petition challenging provisions of the Regional Haze Rule governing an optional emissions trading program for certain western States and Tribes (the Western Regional Air Partnership (WRAP) Annex Rule). EPA published proposed regulations to revise the provisions of the Regional Haze Rule governing alternative trading programs, and to provide additional guidance on such programs in August 2005. EPA received several comments on the August 2005 proposal. This final rule [Federal Register: October 13, 2006 (Volume 71, Number 198)] finalized the proposed revisions, including changes in response to the public comments. This rule became effective December 12, 2006. The following report has been amended to address all these actions, as well as addressing comments received by **the Department, from** EPA on 11/3/04, **and in 2007.**

1 **ACKNOWLEDGEMENTS IN THE PREPARATION OF THIS REPORT**

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25
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28 provided Albuquerque-Bernalillo County and other western states with much of the
29 policy and technical support information needed to meet the requirements of
30 Section 309 of the Regional Haze Rule. Special thanks to the following staff:

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34 • Lee Alter, IOC Staff Support
35 • Don Arkell, State Caucus Coordinator/Visibility Program Coordinator, WESTAR
36 • Bob Lebens, WESTAR
37 • Lee Gribovicz, WRAP Air Quality Project Manager

ACRONYMS

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4	ACI	Air Curtain Incinerator
5	AEG	Annual Emissions Goal
6	AQD	Air Quality Division (City of Albuquerque)
7	AQCB	Albuquerque-Bernalillo County Air Quality Control Board
8	ATS	Allowance Tracking System
9	BACT	Best Available Control Technology
10	BART	Best Available Retrofit Technology
11	CAA	The Clean Air Act
12	CFR	Code of Federal Regulations
13	Dv	DeciView
14	EATS	Emission Allowance Tracking System
15	EC	Elemental Carbon
16	EDMS	Emissions Data Reporting, Management and Tracking System
17	EIB	Environmental Improvement Board
18	EPA	U.S. Environmental Protection Agency
19	ERT	Emission Reduction Technique
20	ESMP	Enhanced Smoke Management Policy
21	FEJF	Fire Emissions Joint Forum
22	FEP	Fire Emissions Project
23	FIP	Federal Implementation Plan
24	FLM	Federal Land Manager
25	GCVTC	Grand Canyon Visibility Transport Commission
26	I&M	Inspection and Maintenance Program
27	MOU	Memorandum of Understanding
28	MW	Mega Watts
29	NAAQS	National Ambient Air Quality Standards
30	NMAC	New Mexico Administrative Code
31	NMED	New Mexico Environment Department
32	NOx	Nitrogen Oxides
33	NSPS	New Source Performance Standards
34	NSR	New Source Review
35	NVC	Natural Visibility Conditions
36	OC	Organic Carbon
37	PBII	Prescribed Burn II
38	PM	Particulate Matter
39	RATA	Relative Accuracy Test Audit
40	RAVI	Reasonable Attributable Visibility Impairment
41	RHR	Regional Haze Rule
42	SEP	Supplemental Environmental Project
43	SIP	State Implementation Plan
44	SMP	Smoke Management Plan or Smoke Management Program
45	SO2	Sulfur Dioxide
46	TIP	Tribal Implementation Plan
47	TPY	Tons per Year
48	TSA	Tracking System Administrator
49	TSD	Technical Support Document
50	VMT	Vehicle Miles Traveled
51	VOCs	Volatile Organic Compounds

ACRONYMS (continued):

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- WEB Western Emissions Budget
- WEB [ATS] EATS WEB Emission Allowance Tracking System
- WESTAR Western States Air Resources Council
- WFU Wildland Fire Managed for Resource Benefit
- WGA Western Governor's Association
- WRAP Western Regional Air Partnership

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Glossary

(After Malm, W. C., *Introduction to Visibility*, National Park Service, May 1999)

Absorption: a class of processes by which one material is taken up by another.

Absorption coefficient: a measure of the ability of particles or gases to absorb photons; a number that is proportional to the number of photons removed from the sight path by absorption per unit length.

Aerosol: a dispersion of microscopic solid or liquid particles in a gaseous medium, such as smoke and fog.

Air parcel: a volume of air that tends to be transported as a single entity.

Anthropogenic: produced by human activities.

Apportionment: to distribute or divide and assign proportionately.

Attenuation: the diminuation of quantity. In the case of visibility, attenuation or extinction refers to the loss of image-forming light as it passes from an object to the observer.

Coagulation: the process by which small particles collide with and adhere to one another to form larger particles.

Condensation: the process by which molecules in the atmosphere collide and adhere to small particles.

Condensation nuclei: the small nuclei or particles with which gaseous constituents in the atmosphere (e.g., water vapor) collide and adhere.

Deciview: a unit of visibility proportional to the logarithm of the atmospheric extinction, an index of haziness. Under many circumstances a change in one deciview will be perceived to be the same on clear and hazy days.

Extinction: the attenuation of light due to scattering and absorption as it passes through a medium.

Extinction coefficient: a measure of the ability of particles or gases to absorb and scatter photons from a beam of light; a number that is proportional to the number of photons removed from the sight path per unit length. See absorption.

Haze: an atmospheric aerosol of sufficient concentration to be visible. The particles are so small that they cannot be seen individually, but are still effective in visual range restriction. See visual range.

Homogenous nucleation: process by which gases interact and combine with droplets made up of their own kind. For instance, the collision and subsequent adherence of water vapor to a water droplet is homogenous nucleation. See nucleation.

1 **Hydrocarbons:** compounds containing only hydrogen and carbon. Examples: methane,
2 benzene, decane, et cetera.
3
4 **Hygroscopic:** readily absorbing moisture, as from the atmosphere.
5
6 **IMPROVE:** Interagency Monitoring of PROtected Visual Environments.
7
8 **Isopleth:** a line drawn on a map through all points having the same numerical value.
9
10 **LAC:** See Light-Absorbing Carbon.
11
12 **Light-absorbing carbon (LAC):** carbon particles in the atmosphere that absorb light. Black
13 carbon.
14
15 **Light extinction budget:** the percent of total atmospheric extinction attributed to each
16 aerosol and gaseous component of the atmosphere.
17
18 **Micron:** a unit of length equal to one millionth of a meter; the unit of measure for
19 wavelength.
20
21 **Nitrogen dioxide:** a gas (NO₂) consisting of one nitrogen and two oxygen atoms. It
22 absorbs blue light and therefore has a reddish-brown color associated with it.
23
24 **NO₂:** See nitrogen dioxide.
25
26 **Nucleation:** process by which a gas interacts and combines with droplets. See
27 homogenous nucleation.
28
29 **Perceived Visual Air Quality (PVAQ):** an index that relates directly to how human
30 observers perceive changes in visual air quality.
31
32 **Photon:** a bundle of electromagnetic energy that exhibits both wave-like and particle-like
33 characteristics.
34
35 **Plume blight:** visual impairment of air quality that manifests itself as a coherent plume.
36
37 **Point source:** 1) generally, any stationary source for which individual records are
38 maintained for emission inventory purposes; distinguished from area source, often by a
39 criterion involving emission rate, such as 100 tons per year. 2) A source of pollution that is
40 point-like in nature. An example is the smoke stack of a coal-fired power plant or smelter.
41 See source.
42
43 **Precursor emissions:** emissions from point or regional sources that transform into
44 pollutants with varied chemical properties.
45
46 **Rayleigh scattering:** the scattering of light by particles much smaller than the wavelength
47 of the light. In the ideal case, the process is one of a pure dipole interaction with the electric
48 field of the light wave.
49
50 **Relative humidity:** the ratio of the partial pressure of water to the saturation vapor
51 pressure, also called saturation ratio; often expressed as a percentage.

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Scattering (light): an interaction of a light wave with an object that causes the light to be redirected in its path. In elastic scattering, no energy is lost to the object.

Scattering coefficient: a measure of the ability of particles or gases to scatter photons out of a beam of light; a number that is proportional to the amount of photons scattered per unit length.

Secondary aerosols: aerosol formed by the interaction of two or more gas molecules and/or primary aerosols.

SO₂: See sulfur dioxide.

Source: in atmospheric chemistry, the place, places, group of sites, or areas where a substance is injected into the atmosphere. Can include point sources, elevated sources, area sources, regional sources, multiple sources, etc.

Sulfates: those aerosols which have origins in the gas-to-aerosol conversion of sulfur dioxide; of primary interest are sulfuric acid and ammonium sulfates.

Sulfur dioxide: a gas (SO₂) consisting of one sulfur and two oxygen atoms. Of interest because sulfur dioxide converts to an aerosol that very efficiently scatters light. Also, it can convert into acid droplets consisting primarily of sulfuric acid.

Visual range: the distance at which a large black object just disappears from view.

VOC: Volatile Organic Compound - gaseous hydrocarbon.

1 **I. BACKGROUND ON REGIONAL HAZE**

2
3 **A. Introduction**

4 Regional haze is air pollution that is transported long distances and reduces visibility in
5 national parks and wilderness areas across the country. Over the years this haze has
6 reduced the visual range from 90 miles (145 kilometers) to 15-31 miles (24-50 kilometers) in
7 the East, and from 140 miles (225 kilometers) to 35-90 miles (56-145 kilometers) in the West.
8 The pollutants that create this haze are sulfates, nitrates, organic carbon, elemental carbon,
9 and soil dust. Anthropogenic haze sources include industry, motor vehicles, agricultural and
10 forestry burning, and windblown dust from roads and farming practices.

11
12 In 1999, the Environmental Protection Agency (EPA) issued regulations to address regional
13 haze in 156 national parks and wilderness areas across the country. These regulations were
14 published in the Federal Register on July 1, 1999 [64 FR 35714]. The goal of the Regional
15 Haze Rule (RHR) is to eliminate anthropogenic visibility impairment in national parks and
16 wilderness areas across the country. It contains strategies to improve visibility over the next
17 60 years, and requires states to adopt implementation plans.

18
19 EPA’s RHR provides two paths to address regional haze. One is 40 CFR 51.308 (“Section
20 308”), and requires most states to develop long-term strategies out to the year 2064. These
21 strategies must be shown to make “reasonable progress” in improving visibility in Class I
22 areas inside the state and in neighboring jurisdictions. The other is 40 CFR 51.309 (
23 Section 309”), and is an option for nine states - Arizona, California, Colorado, Idaho, Nevada,
24 New Mexico, Oregon, Utah, and Wyoming - and the 211 Tribes located within those States to
25 adopt regional haze strategies for the period from 2003 to 2018. These strategies are based
26 on recommendations from the Grand Canyon Visibility Transport Commission (GCVTC) for
27 protecting the 16 Class I areas in the Colorado Plateau area. Adopting these strategies
28 constitutes reasonable progress until 2018. These same strategies can also be used by the
29 nine western states and tribes to protect the other Class I areas within their own jurisdiction.

30
31 Best Available Retrofit Technology (BART) is one of the main provisions in the RHR. It
32 applies to certain industrial sources built between 1962 and 1977. Section 308 requires
33 states to identify BART-eligible sources, estimate the expected visibility improvements, and
34 determine BART for each eligible source. Section 309 initially provided an alternative
35 method of satisfying the 308 BART requirements by setting voluntary SO2 emission
36 reductions for BART sources, with a backup market trading program if the SO2 reduction
37 milestones are not met. This alternative to BART in Section 309 was referred to as the
38 Annex. SO2 reductions in the Annex were designed to be “better than BART”. However, in
39 response to lawsuits filed by CEED and American Corn Growers, EPA has modified the
40 ~~Reginal-Regional~~ Haze Rule so that: Section 309 States must also determine BART eligibility
41 for sources and the “Annex” is unaffected.

42
43 **B. 1977 Clean Air Act**

44
45 In 1977, Congress amended the Clean Air Act (CAA), including provisions to protect the
46 scenic vistas of the nation’s national parks ~~an~~ and wilderness areas. Section 169A was
47 added to the CAA for the protection of visibility in mandatory class I Federal areas (Class I
48 Areas) of great scenic importance. In Section 169A(a)(1), Congress established the national
49 goal for visibility protection:

1 “Congress hereby declares as a national goal the prevention of any future, and
2 the remedying of any existing, impairment of visibility in mandatory class I
3 Federal areas which impairment results from man-made air pollution”.
4

5 In 1980, the EPA developed regulations to address this goal by reducing the impact of large
6 industrial sources on nearby Class I areas* . It was recognized at the time that regional haze,
7 which comes from a wide variety of sources that may be located far away from a Class I
8 area, were also a part of the visibility problem. However, monitoring networks and visibility
9 models were not yet developed to the degree necessary to understand the causes of
10 regional haze. Therefore, EPA deferred additional rulemaking until scientific knowledge of
11 visibility impairment had improved.
12

13 The final Regional Haze Rule (RHR), which precipitated the development of this SIP
14 element, was promulgated on July 1, 1999 and became effective on August 30, 1999 (See
15 Appendix A-O). In response to the lawsuits brought by CEED and American Corn Growers
16 Ass’n, EPA has since issued amendments to the Regional Haze Rule (See 7/6/05 FR &
17 10/13/06 FR). See Appendix [2007-?] 2007-A
18
19

20 **C. Grand Canyon Visibility Transport Commission**

21
22 Amendments to the Clean Air Act in 1990 created the Grand Canyon Visibility Transport
23 Commission (GCVTC). The Commission was given the charge to assess the currently
24 available scientific information pertaining to adverse impacts on visibility from potential
25 growth in the region, identify clean air corridors, and recommend long-range strategies for
26 addressing regional haze. The GCVTC completed significant technical analyses and
27 developed recommendations to improve visibility in the 16 mandatory federal Class I areas
28 on the Colorado Plateau. The Commission found that visibility impairment on the Colorado
29 Plateau was caused by a wide variety of sources and pollutants. A comprehensive strategy
30 was needed to address all of the causes of regional haze. The GCVTC submitted these
31 recommendations to EPA in a report dated June 1996 for consideration in rule development.
32 These recommendations were:
33

34 **Air Pollution Prevention.** Air pollution prevention and reduction of per capita pollution was
35 a high priority for the Commission. The Commission recommended policies based on energy
36 conservation, increased energy efficiency and promotion of the use of renewable resources
37 for energy production.
38

39 **Clean Air Corridors.** Clean air corridors are key sources of ~~clear~~ clean air at Class I areas,
40 and the Commission recommended careful tracking of emissions growth that may affect air
41 quality in these corridors.
42

43 **Stationary Sources.** For stationary sources, the Commission recommended closely
44 monitoring the impacts of current requirements under the Clean Air Act and ongoing source
45 attribution studies. Regional targets for SO2 emissions from stationary sources should be
46 set, starting in 2000. If these targets are exceeded, this will trigger a regulatory program,
47 probably including a regional cap and market-based trading.
48

* Class I Areas generally include national parks, monuments, wildlife refuges and wildernesses.

1 **Areas In and Near Parks.** The Commission's research and modeling showed that a host of
2 identified sources adjacent to parks and wilderness areas, including large urban areas, have
3 significant visibility impacts. However, the Commission lacked sufficient data regarding the
4 visibility impacts of emissions from some areas in and near parks and wilderness areas. In
5 general, the models used by the Commission were not readily applicable to such areas.
6 Pending further studies of these areas, the Commission recommended that local, state,
7 tribal, federal, and private parties cooperatively develop strategies, expand data collection,
8 and improve modeling for reducing or preventing visibility impairment in areas within and
9 adjacent to parks and wilderness areas.

10
11 **Mobile Sources.** The Commission recognized that mobile source emissions are projected
12 to decrease through about 2005 due to improved control technologies. The Commission
13 recommended capping emissions at the lowest level achieved and establishing a regional
14 emissions budget, and also endorsed national strategies aimed at further reducing tailpipe
15 emissions, including the so-called 49-state low emission vehicle, or 49-state LEV.

16
17 **Road Dust.** The Commission's technical assessment indicated that road dust is a large
18 contributor to visibility impairment on the Colorado Plateau. As such, it requires urgent
19 attention. However, due to considerable skepticism regarding the modeled contribution of
20 road dust to visibility impairment, the Commission recommended further study in order to
21 resolve the uncertainties regarding both near-field and distant effects of road dust, prior to
22 taking remedial action. Since this emissions source is potentially such a significant
23 contributor, the Commission felt that it deserved high priority attention and, if warranted,
24 additional emissions management actions.

25
26 **Emissions from Mexico.** Mexican sources are also shown to be significant contributors,
27 particularly of SO₂ emissions. However, data gaps and jurisdictional issues made this a
28 difficult issue for the Commission to address directly. The Commission recommendations
29 called for continued bi-national collaboration to work on this problem, as well as additional
30 efforts to complete emissions inventories and increase monitoring capacities. These matters
31 should receive high priority for regional and national action.

32
33 **Fire.** The Commission recognized that fire plays a significant role in visibility on the Plateau.
34 In fact, land managers propose aggressive prescribed fire programs aimed at correcting the
35 buildup of biomass due to decades of fire suppression. Therefore, prescribed fire and wildfire
36 levels are projected to increase significantly during the studied period. The Commission
37 recommended the implementation of programs to minimize emissions and visibility impacts
38 from prescribed fire, as well as to educate the public.

39
40 **Future Regional Coordinating Entity.** Finally, the Commission believed there was a need
41 for an entity like the Commission to oversee, promote, and support many of the
42 recommendations in their report. To support that entity, the Commission developed a set of
43 recommendations addressing the future administrative, technical and funding needs of the
44 Commission or a new regional entity. The Commission strongly urged the EPA and
45 Congress to provide funding for these vital functions and give them a priority reflective of the
46 national importance of the Class I areas on the Colorado Plateau.

47 **D. Western Regional Air Partnership**

48
49
50 The Western Regional Air Partnership (WRAP) was established in 1997 as the successor

1 organization of the GCVTC. The WRAP is charged with coordinating and overseeing the
2 implementation of the Commission's recommendations, as well as developing the technical
3 and policy work that states and tribes in the West will need in order to implement the RHR.
4 The WRAP is a stakeholder-based organization, working cooperatively with States, tribes,
5 federal agencies, environmental groups, and industry representatives to develop
6 recommendations that meet the environmental goals most effectively. Since 2000, much of
7 the work being conducted by the committees and forums of the WRAP have focused on
8 identifying what information will be needed for Section 309 SIPs and TIPs.
9

10 11 **II. STATE IMPLEMENTATION PLAN**

12 **A. [Purpose:] Objective**

13
14 This document presents [~~and explains~~] technical information to support the Albuquerque-
15 Bernalillo County Air Quality Control [~~Board~~] Board's (AQCB) approval of this document as
16 the Regional Haze element of the State Implementation Plan (SIP) for Bernalillo County,
17 New Mexico. The AQCB proposes the following action: Approval of the report *Section 309*
18 *State Implementation Plan Element to Address Requirements of the final Regional Haze*
19 *Rule*

20
21 The AQCB has opted to follow the recommendations of the Grand Canyon Visibility
22 Transport Commission (GCVTC) and produce its regional haze SIP element to fulfill the
23 requirements as specified in Section 51.309 (d) of the final Regional Haze Rule (RHR) [FR
24 Vol. 64, No. 126] and subsequent rule changes.

25
26 Along with the State of New Mexico's Section 51.309(d) SIP governing thirty-two counties,
27 Bernalillo County's regional haze SIP element will address all of the 16 Federal Class I Areas
28 on the Colorado Plateau. [~~If it elects to do so,~~] The [~~AQCB may~~] Department will address
29 additional Class I Areas in [~~2008~~] 2012 as a revision to the 2003/2007 regional haze SIP
30 element.

31 32 33 **B. [Note on Jurisdiction:] Statutory Authority**

34
35 This SIP is adopted pursuant to the authority provided in the New Mexico Air Quality Control
36 Act, NMSA 1978 Sections 74-2-4, 74-2-5.C; the Joint Air Quality Control Board Ordinance,
37 Bernalillo County Ordinance 94-5 Sections 3 and 4; and the Joint Air Quality Control Board
38 Ordinance, Revised Ordinances of Albuquerque 1994 Sections 9-5-1-3 and 9-5-1-4.

39 40 **C. Scope**

41
42 This SIP is applicable to sources within Bernalillo County, except those that are located on
43 Indian lands over which the Albuquerque-Bernalillo County Air Quality Control Board (AQCB)
44 lacks jurisdiction.

45 For air quality purposes, Bernalillo County operates the same way as a state-level air
46 agency. The U.S. Environmental Protection Agency (EPA) [~~treats~~] regulates and funds
47 Bernalillo County as it does any other [states] state air agency. Enacted in 1967, the New
48 Mexico State Air Quality Control Act [NMSA 1978 Sections 74-2-4 & 74-2-5] allowed for the
49 establishment of the AQCB as a local board and [~~gave~~] empowered it with the authority to
50 administer and enforce its air quality regulations within Bernalillo County [~~boundaries~~].
51

1 Pursuant to the authority of the Air Quality Control Act, Chapter 74, Article 2 NMSA 1978,
2 Sections 74-2-5 and 74-2-7, the AQCB has jurisdiction over all of Bernalillo County, which
3 contains all of (including the City of Albuquerque), except Indian lands. The State of New
4 Mexico Environmental Improvement Board (EIB) has jurisdiction over all other counties in
5 New Mexico [~~except Bernalillo County~~]. The City of Albuquerque Environmental Health
6 Department, Air Quality Division (AQD) administers and staffs the air quality program for
7 Bernalillo County. The term Department, as used in this document, refers to the
8 Albuquerque Environmental Health Department. [~~The term Albuquerque-Bernalillo County is
9 also used to indicate the Albuquerque Environmental Health Department.~~]

12 **III. BACKGROUND**

14 **A) National Visibility Goal:**

16 Section 169A of the Clean Air Act Amendments of 1977 sets forth a national visibility goal to
17 remedy any existing visibility impairment in Class I Areas and prevent any such future
18 impairment. In 1980, EPA developed its initial visibility regulations. These regulations
19 required that states revise their State Implementation Plans (SIPs) to incorporate the national
20 visibility goal. EPA, however, deferred national rulemaking until scientific knowledge of
21 visibility impairment had improved. The final Regional Haze Rule (RHR), which precipitated
22 the development of this SIP element, was promulgated on July 1, 1999 and became effective
23 on August 30, 1999 (See Appendix A-O).]

26 **~~[B)]~~ D Options for Regional Haze SIPs:**

28 The final Regional Haze regulation, also referred to as the Regional Haze Rule (RHR),
29 establishes a comprehensive national visibility program to protect Federal Class I Areas and
30 requires states to develop a SIP element to address requirements of the final RHR. [~~The
31 final RHR provides two options to states in Sections 51.308 and 51.309, known as “308” and
32 “309”, respectively.~~]

34 Class I areas are those designated as areas of special national or regional value from a
35 natural, scenic, recreational, and/or historic perspective. These areas are the focus of
36 federal visibility protection regulations, including the Regional Haze Rule. Across the
37 country, Class I areas include such places as the Grand Canyon, Yosemite, Mt. Rainier,
38 Great Smoky Mountains, Yellowstone, and the Everglades. There are a total of 156
39 mandatory federal Class I areas in the U.S. There are nine Class I areas in New Mexico,
40 including Carlsbad Caverns National Park, Bandelier National Monument, Bosque del
41 Apache National Wildlife Refuge, and the Gila, Pecos, Salt Creek, San Pedro Parks,
42 Wheeler Peak, and White Mountain Wilderness Areas.

44 [~~The 308 Option is the national regional haze program available to all states. The 309
45 Option, however, is only available to nine Western states within the Colorado Plateau region;
46 this includes New Mexico and Bernalillo County. Also, there are two alternatives available
47 within both the 308 and the 309 options.~~]

49 The final RHR provides two options to states ~~in~~ under 40 CFR Sections 51.308 and 51.309,
50 known as Section 308 or “308” and Section 309 or “309”, respectively. Section 309 of the
51 Regional Haze Rule is an option only available to the nine western states that comprised the

1 Grand Canyon Visibility Transport Commission (GCVTC), an organization formed by
2 Congress in 1991 to study scientific and technical information on visibility protection for 16
3 Class I areas located on the Colorado Plateau, including the San Pedro Parks Wilderness
4 Area in New Mexico. In 1996, the GCVTC submitted a report to EPA with recommendations
5 on how to protect visibility for these areas. The Regional Haze Rule's Section 309
6 incorporates many of the recommendations of the GCVTC, which were developed through a
7 consensus-based process that involved states, tribes, EPA, federal land managers, industry,
8 citizens and environmental groups from the west.[†] New Mexico was an active participant in
9 the process, as were New Mexico tribal governments, industry representatives and
10 environmental groups.

11
12 ~~[As stated],~~ The Albuquerque-Bernalillo County Air Quality Control Board (AQCB) chose to
13 develop its regional haze SIP element using the 309 Option. ~~[Also]~~ [For the 2007 SIP](#)
14 [submittal](#) the ~~[AQCB]~~ [Department](#) will follow the alternative within 309 that permits states to
15 address only the 16 Class I Areas of the Colorado Plateau[‡]. ~~[The 309 Option is based upon~~
16 ~~the recommendations of the Grand Canyon Visibility Transport Commission (GCVTC) issued~~
17 ~~in June 1996. Section 51.309 of the final Regional Haze Rule (FR Vol. 64, No. 126)~~
18 ~~incorporates several of the GCVTC's recommendations.]~~

21 ~~[C)]~~ **E. Requirements of the 309 Option:**

22
23 ~~[Specifically],~~ The final RHR requires that States opting to follow Section 51.309 address the
24 following topics in their regional haze SIP elements:

- 25
- 26 Projection of Visibility Impairment
- 27 Treatment of Clean Air Corridors
- 28 Implementation of Stationary Source Reductions
- 29 Mobile Sources
- 30 Emissions Related to Fire
- 31 Dust from Roads
- 32 Pollution Prevention
- 33 Implementation of Additional Requirements
- 34 Periodic Implementation Plan Revisions, and
- 35 State Planning & Interstate Coordination
- 36

37 The AQCB includes all of these topics in this regional haze SIP element, and identifies
38 specific control strategies to address the different types of emission sources.

39 ~~[III.]~~ **APPROACH**

40 41 42 ~~A) Western Regional Air Partnership (WRAP) Products & Bernalillo County:~~

43
44 ~~The work of the GCVTC and the Western Regional Air Partnership (WRAP) forms the basis~~
45 ~~of a 309 Regional Haze SIP. The WRAP is a multi-state organization formed to collaborate~~
46 ~~on the technical and policy aspects of regional haze SIPs. The WRAP developed the~~

† See Section ~~XI~~ H, Additional Recommendations, for a discussion of all of the GCVTC's recommendations.

‡ One of these 16 Class I Areas lies within the State of New Mexico, though it is not within Bernalillo County.

1 majority of its emissions inventories, reports and products for the nine GCVTC states to use.
2 The State of New Mexico is one of the GCVTC states. As with other states' local
3 jurisdictions, the WRAP work products focus attention on the State of New Mexico as
4 opposed to Bernalillo County.]

6 III Coordination with the State of New Mexico

8 ~~[(A)]~~ Since 1967, when the New Mexico Air Quality Control Act was adopted, ~~[authorized]~~ the
9 City of Albuquerque and Bernalillo County have acted as agents of the AQCB to implement,
10 administer and enforce a the local air quality program within Albuquerque and Bernalillo
11 County. ~~[Subsequently]~~, After Congress adopted the 1970 Clean Air Act (CAA), the AQCB
12 (formed ~~[previously]~~ by Albuquerque and Bernalillo County prior to the CAA) became the
13 federally-delegated authority to implement the Federal CAA. Therefore the, City of
14 Albuquerque ~~[staff]~~ acting as agents for the AQCB, administers and enforces the local
15 Bernalillo County air quality program and interfaces with the U.S. Environmental Protection
16 Agency (EPA) Region VI to implement CAA provisions.

18 ~~[(B) Coordination with the State of New Mexico:]~~

20 This presents a unique situation for promulgating a 309 Regional Haze SIP element,
21 ~~[Although]~~ because Bernalillo County has independent delegation for CAA purposes, but it
22 is still part of the State of New Mexico. Therefore, coordination between Bernalillo County
23 and the State of New Mexico is necessary. To this end, City of Albuquerque staff
24 participated in the State's Regional Haze Stakeholder Workgroup (for the 2003 Regional
25 Haze SIP), a series of meetings to build consensus regarding whether the State should
26 pursue the 308 or the 309 SIP option.

28 However, consensus was not ~~[achieved]~~ reached. In a letter dated June 24, 2003 (see
29 Appendix B-O), the New Mexico Secretary of the Environment recommended that the State
30 pursue the 309 SIP option so it could build upon the GCVTC's technical work developed
31 specifically for certain western states. City of Albuquerque staff met with State staff in June
32 2003 to coordinate how each would develop it's separate, yet related, 309 SIP element.

35 IV. SIP ELEMENTS

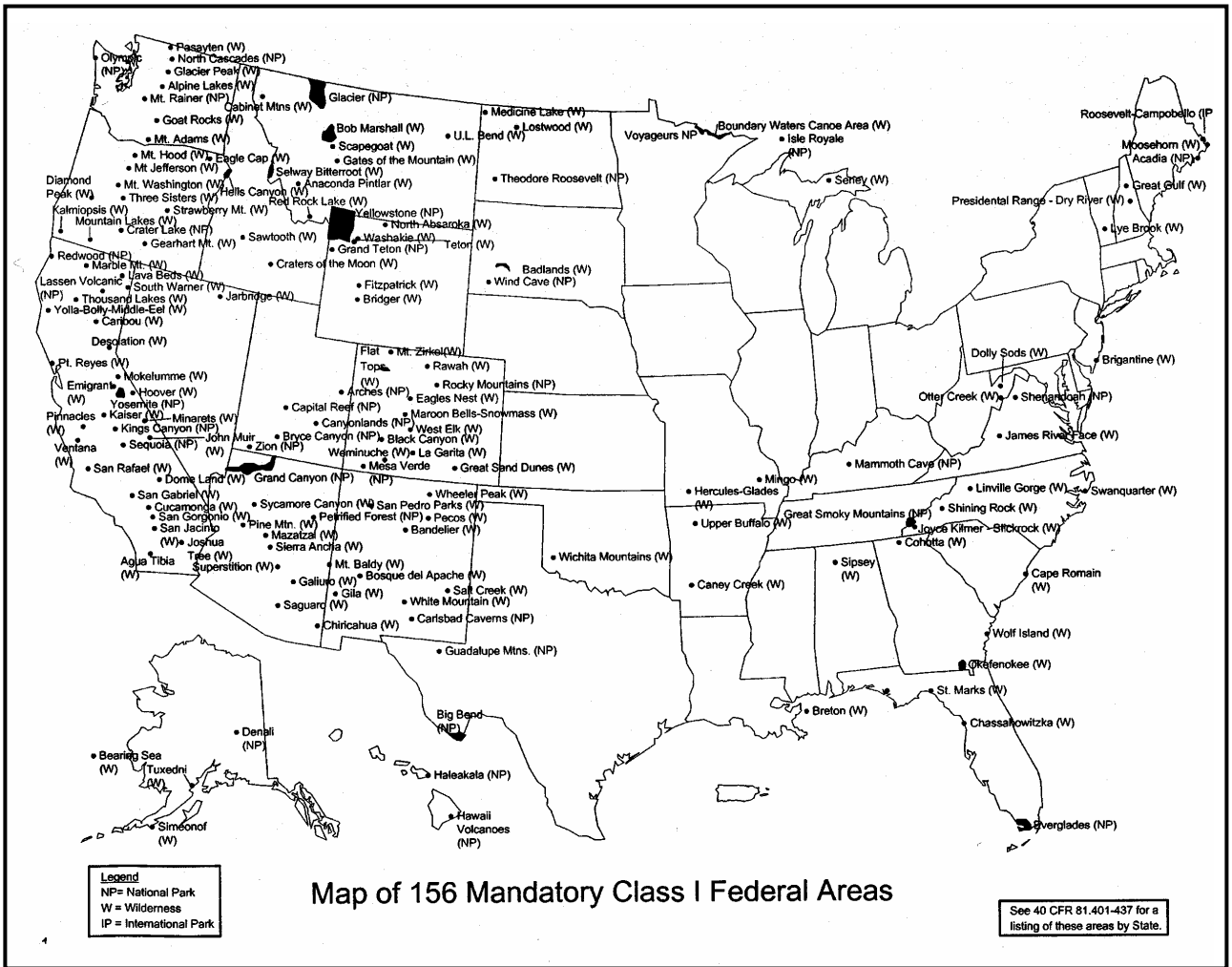
37 A. Projection Of Visibility Improvement

39 ~~[(A) Introduction & Requirements:]~~

41 Page 35751 of the Preamble to the Regional Haze Rule (RHR) discusses the requirement for
42 projection of visibility improvement, which is only for the 16 Class I Areas of the Colorado
43 Plateau (see Figure 2 in Section B). There are, however, a total of 156 federal Class I Areas
44 within the United States.

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Figure 1: Federal Class I Areas in the United States



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This requirement for projection of visibility improvement applies to all transport region states, whether they have one or more of the 16 Class I Areas within their borders or whether they have none. States must show visibility improvement for each of the 16 Class I Areas. EPA requirements for the 2003 SIP submittal stipulated that, States do not need to show their individual contribution, just the regional contribution. Note that the same visibility improvement projections will be reflected in the SIPs of the transport region states because the states are utilizing technical work that the Western Regional Air Partnership (WRAP) has produced.

[B) Applicable Class I Areas:]

Many of the 156 Mandatory Federal Class I Areas in the United States are found in the West (see Figure 1 [\[on the previous page\]](#)). As mentioned, Section 51.309 of the final Regional Haze Rule (RHR) offers two alternatives for addressing Federal Class I Areas⁵. As part of

⁵ For purposes here, the term Class I Areas means the Mandatory Class I Federal Areas.

1 their 2003 SIP element submittal, States ~~[may address]~~ either addressed 1) all of the 16
2 Class I Areas of the Colorado Plateau, or 2) all of the 16 Class I Areas of the Colorado
3 Plateau and additional Class I Areas outside of the Colorado Plateau but inside the nine
4 GCVTC state transport region.

5
6 In 2003, as part of this SIP element, the Albuquerque-Bernalillo County Air Quality Control
7 Board (AQCB) ~~[has]~~ elected to address only the 16 Class I Areas of the Colorado Plateau.
8 However Since that time WRPA WRAP has made efforts to model the impact transport
9 region states have on additional Class I areas outside of the Colorado Plateau. These efforts
10 were made to address additional requirements for the 2007 Regional Haze SIP submittal,
11 specifically 40 CFR 51.309(d)10(i) and 40 CFR 59.309(g), which call for an analysis the
12 impacts each state has on other Class I areas. However, the WRAP has not analyzed
13 transport impacts below the level of a state. Therefore, it is uncertain whether emissions
14 form Bernalillo County will cause a significant (0.5 dv) impact on nearby Class I areas (i.e.
15 Bosque del Apache). The Department will work with the WRAP to determine this impact and
16 report on the analysis by December 31, 2012, when the next SIP revision is anticipated.

17
18 **(a) Applicable Class I Areas**

19
20 ~~[The section on]~~ This projection of visibility improvement (presented here) covers the 16
21 Class I Areas of the Colorado Plateau as defined in 40 CFR 51.309(b)(1).

22
23 **Table 1: 16 Class I Areas of the Colorado Plateau**

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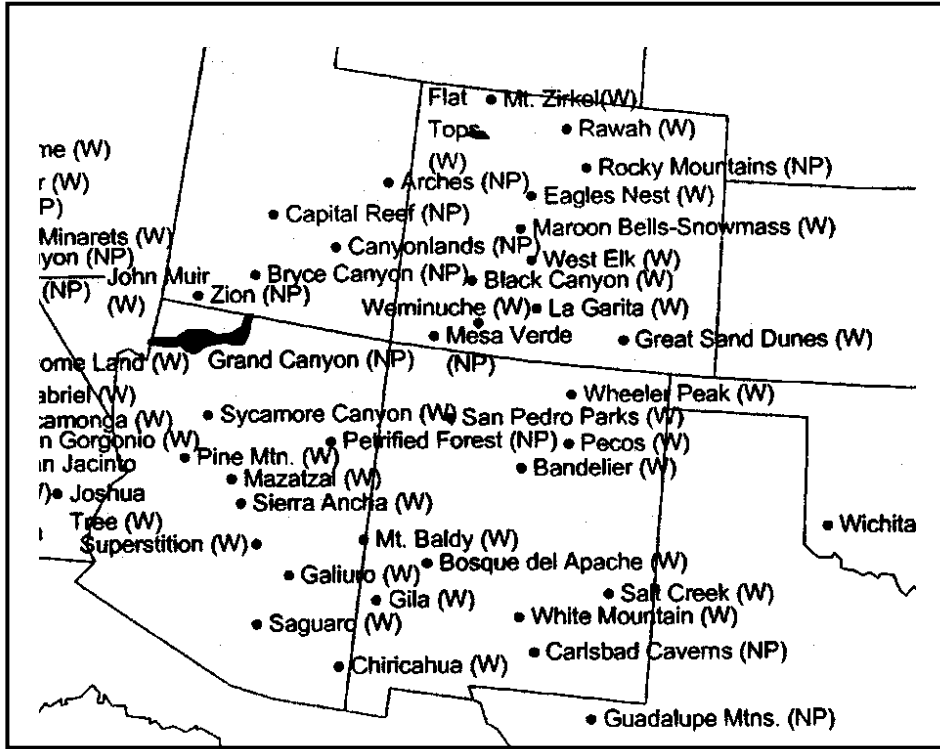
Area	Location
Grand Canyon National Park	Arizona
Sycamore Canyon Wilderness	Arizona
Petrified Forest National Park	Arizona
Mount Baldy Wilderness	Arizona
San Pedro Parks Wilderness	New Mexico
Mesa Verde National Park	Colorado
Weminuche Wilderness	Colorado
Black Canyon of the Gunnison Wilderness	Colorado
West Elk Wilderness	Colorado
Maroon Bells Wilderness	Colorado
Flat Tops Wilderness	Colorado
Arches National Park	Utah
Canyonlands National Park	Utah
Capital Reef National Park	Utah
Bryce Canyon National Park	Utah
Zion National Park	Utah

25
26
27 Of the 16 Class I Areas listed, only the San Pedro Parks Wilderness Area lies within New
28 Mexico (See Figure 2). Note that no such Class I Areas are located within Bernalillo County.

1 However, Bernalillo County's impact on these 16 Class I Areas is embodied in the regional
2 technical work that the WRAP has conducted. Results of this work indicate a change in
3 visibility in the San Pedro Parks Wilderness Area on both the 20% worst visibility days and
4 the 20% best visibility days (see Appendix A-SIP for further explanation).

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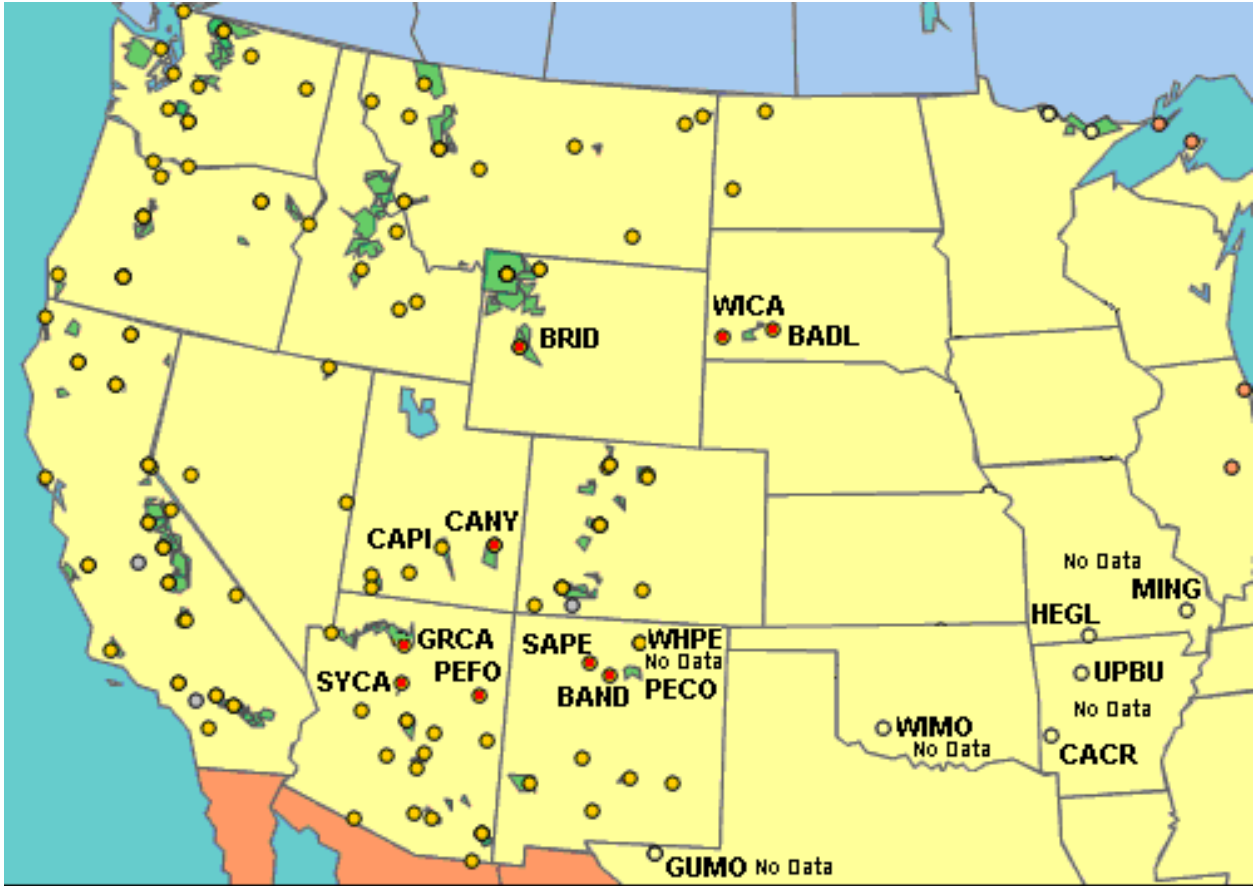
Figure 2a: 16 Class I Areas of the Colorado Plateau
Note: The San Pedro Parks Wilderness Area is the only such area in New Mexico.
[stet.]



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Figure 2b: Class I Areas of the Central and Western United States



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{C} (b) Projected Visibility Improvement:

Pursuant to 40 CFR 51.309(d)(2), Tables 2a and 2b on the following pages indicate the projected visibility improvement in deciviews (dv) for each of the 16 Colorado Plateau Class I Areas, from the ~~[1996]~~ 2002 baseline year through December 31, 2018. This projection (expressed in deciviews), was made for the 20% worst (visibility) days (Table 2a) and 20% best (visibility) days (Table 2b).

The technical work was conducted by the WRAP, which evaluated the visibility improvements resulting from the application of the regional haze control strategies and programs described in Chapter 2 of the WRAP’s Technical Support Document. See Appendices B-TSD through K-TSD of this implementation plan for the complete description of the control strategies and technical analysis.

Comparing the modeled data across the last ~~[three]~~ four columns of each of the tables shows the improvement in visibility that would result from implementation of all of the 309 control strategies. The 2018 Base Case ~~[column shows]~~ columns show the visibility that would result in the absence of the 309 control strategies. The last two columns show the improvement resulting from the control strategies combined ~~[with a base smoke]~~

1 ~~management program (2018 Scenario 1) or~~ with an optimal smoke management program
2 (2018 Scenario 2) and Preliminary Reasonable Progress (PRP18a).
3

4 Modeling results for the San Pedro Parks Wilderness Area are as follows: On the worst
5 visibility days (Table 2a), visibility is predicted to [~~worsen~~] improve as indicated by [~~an~~
6 ~~increase~~] a decrease of [~~1.42~~] 0.25 dV. On the best visibility days (Table 2b), visibility is also
7 predicted to [~~worsen~~] improve as indicated by [~~an increase~~] a decrease of [~~1.51~~] 0.19 dV.
8 Therefore, for the worst and best visibility days (Table 2b), visibility in San Pedro Parks
9 [~~worsens~~] improves. [~~However~~], By implementing provisions of a Section 309 SIP, visibility in
10 San Pedro Parks will improve over the scenario where no controls are put in place. A more
11 detailed discussion of the modeling results for all Colorado Plateau Class I Areas is found in
12 Appendix A-SIP of the SIP Appendices.
13

1 Table 2a. Projected Visibility Improvement at the 16 Colorado Plateau Class I Areas in
 2 2018 on the Average 20% Worst Visibility Days, resulting from implementation of “All
 3 §309 Control Strategies” on the books in 2002 & 2007; 2018 Scenarios [1 and 2] 2,
 4 Base Case (base18b), and PRP (PRP18a).
 5

Colorado Plateau Class I Area	State	[1997-2001] 2000-2004 Monitoring Data (20% Worst Days' Visibility - deciviews)	Modeling Results (deciviews)		
			2018 Base Case (20% Worst Days' Visibility for all controls “on the books” as of 2002)	2018 [Scenario 1] Base Case (base 18b) (20% Worst Days' Visibility for all §309 Control Strategies (SO ₂ Annex Milestones and Pollution Prevention) with Base Smoke Management)	2018 Scenario 2 (20% Worst Days' Visibility for all §309 Control Strategies (SO ₂ Annex Milestones and Pollution Prevention) with Optimal Smoke Management)
Grand Canyon NP	AZ	[12.30] 11.65	11.62	11.56	11.51
Mount Baldy Wilderness	AZ	14.30	12.22	12.02	11.96
Petrified Forest NP	AZ	13.00	11.99	11.82	11.74
Sycamore Canyon Wilderness	AZ	15.40	11.63	11.51	11.48
Black Canyon of Gunnison NP	CO	11.30	10.90	10.76	10.60
Flat Tops Wilderness	CO	10.50	11.04	10.91	10.73
Maroon Bells-Snowmass WA	CO	10.60	11.15	11.00	10.84
Mesa Verde NP	CO	13.10	12.24	12.03	11.84
West Elk Wilderness	CO	10.60	11.19	10.99	10.84
Weminuche Wilderness	CO	11.30	11.08	10.89	10.72
San Pedro Parks Wilderness	NM	[10.70] update	[12.33] update	[12.12] update	[11.71] update
Arches NP	UT	12.10	12.44	12.29	12.15
Bryce Canyon NP	UT	11.80	12.26	12.24	11.95
Canyonlands NP	UT	12.10	12.44	12.31	12.18
Capitol Reef NP	UT	12.10	12.54	12.49	12.36
Zion NP	UT	13.60	12.13	12.09	12.03

6

<u>Colorado Plateau Class I Area</u>	<u>State</u>	<u>2000-2004 Monitoring Data (20% Worst Visibility Days) (Deciviews)</u>	Modeling Results in Deciviews			
			<u>2018 Base Case (20% Worst Days' Visibility for all controls "on the books" as of 2002)</u>	<u>2018 Base Case (base18b) (20% Worst Visibility Days for all controls "on the books" as of 2007)</u>	<u>2018 Scenario 2 (20% Worst Days' Visibility for all §309 Control Strategies (SO₂ Milestones and Pollution Prevention with Optimal Smoke Management)</u>	<u>2018 PRP (PRP18a) (20% Worst Visibility Days)</u>
<u>Grand Canyon National Park</u>	<u>AZ</u>	<u>11.65</u>	<u>11.62</u>	<u>11.18</u>	<u>11.51</u>	<u>11.14</u>
<u>Mount Baldy Wilderness</u>	<u>AZ</u>	<u>11.82</u>	<u>12.22</u>	<u>11.61</u>	<u>11.96</u>	<u>11.57</u>
<u>Petrified Forest National Park</u>	<u>AZ</u>	<u>13.20</u>	<u>11.99</u>	<u>12.83</u>	<u>11.74</u>	<u>12.65</u>
<u>Sycamore Canyon Wilderness</u>	<u>AZ</u>	<u>15.25</u>	<u>11.63</u>	<u>15.10</u>	<u>11.48</u>	<u>15.12</u>
<u>Black Canyon of the Gunnison National Park Wilderness WEM11</u>	<u>CO</u>	<u>10.32</u>	<u>10.90</u>	<u>10.08</u>	<u>10.60</u>	<u>9.91</u>
<u>Flat Tops Wilderness WHRI1</u>	<u>CO</u>	<u>9.60</u>	<u>11.04</u>	<u>9.13</u>	<u>10.73</u>	<u>9.01</u>
<u>Maroon Bells Wilderness-WHRI1</u>	<u>CO</u>	<u>9.60</u>	<u>11.15</u>	<u>9.13</u>	<u>10.84</u>	<u>9.01</u>
<u>Mesa Verde National Park</u>	<u>CO</u>	<u>13.06</u>	<u>12.24</u>	<u>12.71</u>	<u>11.84</u>	<u>12.55</u>
<u>Weminuche Wilderness-WEM11</u>	<u>CO</u>	<u>10.32</u>	<u>11.08</u>	<u>10.08</u>	<u>10.72</u>	<u>9.91</u>
<u>West Elk Wilderness WHRI1</u>	<u>CO</u>	<u>9.60</u>	<u>11.19</u>	<u>9.13</u>	<u>10.84</u>	<u>9.01</u>
<u>San Pedro Parks Wilderness</u>	<u>NM</u>	<u>10.20</u>	<u>12.33</u>	<u>9.95</u>	<u>11.71</u>	<u>9.72</u>
<u>Arches National Park-CANY1</u>	<u>UT</u>	<u>11.24</u>	<u>12.41</u>	<u>11.03</u>	<u>12.15</u>	<u>10.90</u>
<u>Bryce Canyon National Park</u>	<u>UT</u>	<u>11.64</u>	<u>12.26</u>	<u>11.29</u>	<u>11.95</u>	<u>11.26</u>
<u>Canyonlands National Park- CANY1</u>	<u>UT</u>	<u>11.24</u>	<u>12.41</u>	<u>11.03</u>	<u>12.18</u>	<u>10.90</u>
<u>Capitol Reef National Park</u>	<u>UT</u>	<u>10.90</u>	<u>12.51</u>	<u>10.42</u>	<u>12.36</u>	<u>10.38</u>
<u>Zion National Park</u>	<u>UT</u>	<u>13.23</u>	<u>12.13</u>	<u>12.84</u>	<u>12.03</u>	<u>12.79</u>

1 **2000-2004 Monitoring Data (Worst 20%)**

2
3 **Grand Canyon NP**

Site	Method	Year	N	Deciview
GRCA2	NIA	2000	20	11.1
GRCA2	NIA	2002	25	11.6
GRCA2	NIA	2003	24	12.7
GRCA2	NIA	2004	24	11.2

4
5 **Mount Baldy**

Site	Method	Year	N	Deciview
BALD1	NIA	2001	24	11.4
BALD1	NIA	2002	25	12.9
BALD1	NIA	2003	23	12.6
BALD1	NIA	2004	24	10.4

6
7 **Petrified Forest NP**

Site	Method	Year	N	Deciview
PEFO1	NIA	2000	19	12.7
PEFO1	NIA	2001	21	10.8
PEFO1	NIA	2002	23	13.5
PEFO1	NIA	2003	23	16.1
PEFO1	NIA	2004	20	12.9

8
9 **Sycamore Canyon**

Site	Method	Year	N	Deciview
SYCA1	NIA	2001	22	15
SYCA1	NIA	2002	23	15.5
SYCA1	NIA	2003	21	16.3
SYCA1	NIA	2004	25	14.2

10
11 **Black Canyon of the Gunnison/Weminuche**

Site	Method	Year	N	Deciview
WEMI1	NIA	2001	25	9.5
WEMI1	NIA	2002	22	11.2
WEMI1	NIA	2003	24	11.3
WEMI1	NIA	2004	24	9.3

12
13 **Flat Tops/Maroon Bells/West Elk**

Site	Method	Year	N	Deciview
WHRI1	NIA	2001	23	9.4
WHRI1	NIA	2002	22	11.8
WHRI1	NIA	2003	24	9.6
WHRI1	NIA	2004	24	7.6

14
15 **Mesa Verde NP**

Site	Method	Year	N	Deciview
MEVE1	NIA	2000	21	13
MEVE1	NIA	2001	22	10.5
MEVE1	NIA	2002	21	14.7
MEVE1	NIA	2003	21	16.8
MEVE1	NIA	2004	24	10.3

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San Pedro Parks

<u>Site</u>	<u>Method</u>	<u>Year</u>	<u>N</u>	<u>Deciview</u>
SAPE1	NIA	2001	21	9.3
SAPE1	NIA	2002	20	10.6
SAPE1	NIA	2003	21	11.6
SAPE1	NIA	2004	22	9.3

Arches/Canyonlands

<u>Site</u>	<u>Method</u>	<u>Year</u>	<u>N</u>	<u>Deciview</u>
CANY1	NIA	2000	20	11.2
CANY1	NIA	2001	22	10.9
CANY1	NIA	2002	22	12.7
CANY1	NIA	2003	23	11.8
CANY1	NIA	2004	22	9.6

Bryce Canyon

<u>Site</u>	<u>Method</u>	<u>Year</u>	<u>N</u>	<u>Deciview</u>
BRCA1	NIA	2000	22	10.8
BRCA1	NIA	2001	21	11.3
BRCA1	NIA	2002	21	13.2
BRCA1	NIA	2003	23	11.1
BRCA1	NIA	2004	22	11.8

Capitol Reef

<u>Site</u>	<u>Method</u>	<u>Year</u>	<u>N</u>	<u>Deciview</u>
CAPI1	NIA	2000	21	11.6
CAPI1	NIA	2001	23	10.8
CAPI1	NIA	2002	23	12.1
CAPI1	NIA	2003	19	9.4
CAPI1	NIA	2004	20	10.6

Zion NP

<u>Site</u>	<u>Method</u>	<u>Year</u>	<u>N</u>	<u>Deciview</u>
ZION1	NIA	2001	21	13.3
ZION1	NIA	2002	23	13.9
ZION1	NIA	2003	24	12.5

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Table 2b. Projected Visibility Improvement at the 16 Colorado Plateau Class I Areas in 2018, on the Average 20% Best Visibility Days, resulting from implementation of “All §309 Control Strategies” on the books as of 2002 & 2007, Scenario 2, and 2018 PRP (PRP18a).

Colorado Plateau Class I Area	State	[1997-2001] 2000-2004 Monitoring Data (20% Best Days' Visibility-deciview)	Modeling Results (deciview)		
			2018 Base Case (20% Best Days' Visibility for all controls “on the books” as of 2002)	2018 Scenario 1 (20% Best Days' Visibility for all §309 Control Strategies (SO ₂ Annex Milestones and Pollution Prevention) with Base Smoke Management)	2018 Scenario 2 (20% Best Days' Visibility for all §309 Control Strategies (SO ₂ Annex Milestones and Pollution Prevention) with Optimal Smoke Management)
Grand Canyon NP	AZ	4.80	4.76	4.72	4.64
Mount Baldy Wilderness	AZ	5.50	5.49	5.46	5.36
Petrified Forest NP	AZ	6.50	5.18	5.14	5.10
Sycamore Canyon Wilderness	AZ	6.30	4.85	4.82	4.75
Black Canyon of Gunnison NP	CO	4.60	3.89	3.83	3.75
Flat Tops Wilderness	CO	3.10	3.96	3.90	3.84
Maroon Bells-Snowmass WA	CO	3.10	3.90	3.85	3.80
Mesa Verde NP	CO	5.50	4.40	4.38	4.33
West Elk Wilderness	CO	3.10	3.89	3.83	3.74
Weminuche Wilderness	CO	4.60	3.97	3.92	3.82
San Pedro Parks Wilderness	NM	[4.00] update	[5.59] update	[5.51] update	[5.36] update
Arches NP	UT	5.50	4.85	4.72	4.64
Bryce Canyon NP	UT	4.30	3.91	3.92	3.89
Canyonlands NP	UT	5.60	4.87	4.76	4.67
Capitol Reef NP	UT	5.60	4.85	4.85	4.75
Zion NP	UT	5.90	3.81	3.79	3.75

7

1

<u>Colorado Plateau Class I Area</u>	<u>State</u>	<u>2000-2004 Monitoring Data (20% Best Visibility Days) (Deciviews)</u>	Modeling Results in Deciviews			
			<u>2018 Base Case (20% Best Days' Visibility for all controls "on the books" as of 2002)</u>	<u>2018 Base Case (base18b) (20% Best Visibility Days for all controls "on the books" as of 2007)</u>	<u>2018 Scenario 2 (20% Best Days' Visibility for all §309 Control Strategies (SO₂ Milestones and Pollution Prevention with Optimal Smoke Management)</u>	<u>2018 PRP (PRP18a) (20% Best Visibility Days)</u>
<u>Grand Canyon National Park</u>	<u>AZ</u>	<u>2.17</u>	<u>4.76</u>	<u>2.35</u>	<u>4.64</u>	<u>2.27</u>
<u>Mount Baldy Wilderness</u>	<u>AZ</u>	<u>3.00</u>	<u>5.49</u>	<u>2.94</u>	<u>5.36</u>	<u>2.82</u>
<u>Petrified Forest National Park</u>	<u>AZ</u>	<u>5.02</u>	<u>5.18</u>	<u>4.86</u>	<u>5.10</u>	<u>4.63</u>
<u>Sycamore Canyon Wilderness</u>	<u>AZ</u>	<u>5.60</u>	<u>4.85</u>	<u>5.64</u>	<u>4.75</u>	<u>5.59</u>
<u>Black Canyon of the Gunnison National Park Wilderness WEM11</u>	<u>CO</u>	<u>3.10</u>	<u>3.89</u>	<u>2.95</u>	<u>3.75</u>	<u>2.90</u>
<u>Flat Tops Wilderness WHRI1</u>	<u>CO</u>	<u>0.72</u>	<u>3.96</u>	<u>0.57</u>	<u>3.81</u>	<u>0.50</u>
<u>Maroon Bells Wilderness-WHRI1</u>	<u>CO</u>	<u>0.72</u>	<u>3.90</u>	<u>0.57</u>	<u>3.80</u>	<u>0.50</u>
<u>Mesa Verde National Park</u>	<u>CO</u>	<u>4.32</u>	<u>4.40</u>	<u>4.17</u>	<u>4.33</u>	<u>4.00</u>
<u>Weminuche Wilderness-WEM11</u>	<u>CO</u>	<u>3.10</u>	<u>3.97</u>	<u>2.95</u>	<u>3.82</u>	<u>2.90</u>
<u>West Elk Wilderness WHRI1</u>	<u>CO</u>	<u>0.72</u>	<u>3.89</u>	<u>0.57</u>	<u>3.74</u>	<u>0.50</u>
<u>San Pedro Parks Wilderness</u>	<u>NM</u>	<u>1.47</u>	<u>5.59</u>	<u>1.28</u>	<u>5.36</u>	<u>1.19</u>
<u>Arches National Park CANY1</u>	<u>UT</u>	<u>3.74</u>	<u>4.85</u>	<u>3.66</u>	<u>4.61</u>	<u>3.45</u>
<u>Bryce Canyon National Park</u>	<u>UT</u>	<u>2.78</u>	<u>3.91</u>	<u>2.70</u>	<u>3.89</u>	<u>2.62</u>
<u>Canyonlands National Park-CANY1</u>	<u>UT</u>	<u>3.74</u>	<u>4.87</u>	<u>3.66</u>	<u>4.67</u>	<u>3.45</u>
<u>Capitol Reef National Park</u>	<u>UT</u>	<u>4.12</u>	<u>4.85</u>	<u>4.05</u>	<u>4.75</u>	<u>3.96</u>
<u>Zion National Park</u>	<u>UT</u>	<u>4.96</u>	<u>3.81</u>	<u>4.85</u>	<u>3.75</u>	<u>4.78</u>

2

1 **2000-2004 Monitoring Data (Best 20%)**

2
3 **Grand Canyon NP**

Site	Method	Year	N	Deciview
GRCA2	NIA	2000	19	2.9
GRCA2	NIA	2002	24	2
GRCA2	NIA	2003	23	1.8
GRCA2	NIA	2004	24	2

4
5 **Mount Baldy**

Site	Method	Year	N	Deciview
BALD1	NIA	2001	24	3.7
BALD1	NIA	2002	25	2.9
BALD1	NIA	2003	22	2.6
BALD1	NIA	2004	23	2.8

6
7 **Petrified Forest**

Site	Method	Year	N	Deciview
PEFO1	NIA	2000	18	5
PEFO1	NIA	2001	20	5
PEFO1	NIA	2002	22	5.1
PEFO1	NIA	2003	23	5.4
PEFO1	NIA	2004	19	4.6

8
9 **Sycamore Canyon**

Site	Method	Year	N	Deciview
SYCA1	NIA	2001	21	5.5
SYCA1	NIA	2002	22	6.1
SYCA1	NIA	2003	21	5.9
SYCA1	NIA	2004	24	4.9

10
11 **Black Canyon of the Gunnison/Weminuche**

Site	Method	Year	N	Deciview
WEMI1	NIA	2001	24	3.2
WEMI1	NIA	2002	21	3.3
WEMI1	NIA	2003	23	2.9
WEMI1	NIA	2004	23	3

12
13 **Flat Tops/Maroon Bells/West Elk**

Site	Method	Year	N	Deciview
WHRI1	NIA	2001	22	1.1
WHRI1	NIA	2002	21	0.6
WHRI1	NIA	2003	24	0.6
WHRI1	NIA	2004	23	0.6

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Mesa Verde

Site	Method	Year	N	Deciview
MEVE1	NIA	2000	20	4.3
MEVE1	NIA	2001	21	4
MEVE1	NIA	2002	20	4.7
MEVE1	NIA	2003	21	4.7
MEVE1	NIA	2004	24	3.9

San Pedro Parks

Site	Method	Year	N	Deciview
SAPE1	NIA	2001	20	1.9
SAPE1	NIA	2002	19	1.1
SAPE1	NIA	2003	20	1.4
SAPE1	NIA	2004	22	1.5

Arches/Canyonlands

Site	Method	Year	N	Deciview
CANY1	NIA	2000	19	3.6
CANY1	NIA	2001	21	4.1
CANY1	NIA	2002	22	4.2
CANY1	NIA	2003	22	3.3
CANY1	NIA	2004	21	3.5

Bryce Canyon

Site	Method	Year	N	Deciview
BRCA1	NIA	2000	21	3
BRCA1	NIA	2001	20	3.1
BRCA1	NIA	2002	20	2.6
BRCA1	NIA	2003	23	2.4
BRCA1	NIA	2004	21	2.8

Capitol Reef

Site	Method	Year	N	Deciview
CAP11	NIA	2000	21	4.5
CAP11	NIA	2001	23	4.6
CAP11	NIA	2002	23	4.3
CAP11	NIA	2003	19	3.1
CAP11	NIA	2004	20	4.1

Zion NP

Site	Method	Year	N	Deciview
ZION1	NIA	2001	21	5.6
ZION1	NIA	2002	22	4.8
ZION1	NIA	2003	23	4.5

1 **[D) Some Technical Notes:**

2
3 Note that these visibility projections assume that all states which contain the 16 Colorado
4 Plateau Class I Areas^{**} will develop 309 SIP elements, and therefore will collaborate to
5 improve visibility on a regional level. If some states do not choose the 309 Option, it is
6 possible that the degree of participation necessary to achieve the visibility improvement
7 goals may not occur. In other words, the lack of participation of some states may render a
8 regional visibility improvement goal difficult to achieve. This is certainly the case with respect
9 to the Western SO₂ Backstop Trading Program, which will need a “critical mass” of states in
10 order to be successful.

11
12 The WRAP conducted technical work and evaluated the visibility improvements resulting
13 from application of the regional haze control strategies and programs described in Chapter 2
14 of the WRAP’s Technical Support Document (TSD). See Appendices B-TSD to K-TSD of
15 this SIP submittal for the results of these technical analyses.]

16
17
18 **[V]. B. TREATMENT OF CLEAN AIR CORRIDORS**

19
20 **[A) Introduction & Requirements:]**

21
22 Clean Air Corridors (CACs) are geographic areas located within transport region states that
23 contribute to good visibility in the 16 Class I Areas of the Colorado Plateau. In a CAC,
24 additional restrictions on emissions increases may be appropriate to protect visibility in
25 affected Federal Class I Areas. The Clean Air Act (CAA) Amendments of 1990 require that
26 the Grand Canyon Visibility Transport Commission (GCVTC) address the establishment of
27 CACs. The GCVTC found that, in general, clean air comes to the Colorado Plateau from the
28 northwest. The Meteorological Subcommittee of the GCVTC delineated a CAC that
29 encompasses roughly SE Oregon and most of Idaho, Nevada and Utah (see Figure 3 on the
30 following page).

31
32 Page 35751 of the Preamble to the RHR discusses the requirements for Clean Air Corridors
33 (CACs). States are required to: 1) adopt an emissions tracking program; 2) identify the CAC
34 boundary; 3) identify emissions growth that could be significant enough to result in visibility
35 impairment at one or more of the 16 Class I Areas; 4) outside the CAC, identify significant
36 emissions growth that could impact air quality inside the corridor; 5) if emission growth
37 assessments inside and outside the CAC show visibility impairment in the CAC, conduct an
38 analysis of the potential impact in the 16 Class I Areas; and 6) indicate if any other CACs
39 exist. All transport-region states located within the CAC or not, need to address these
40 requirements.

41
42 **[B) Definition:**

43
44 ~~Clean Air Corridors (CACs) are geographic areas located within transport region states that~~
45 ~~contribute to good visibility in the 16 Class I Areas of the Colorado Plateau. In a CAC,~~
46 ~~additional restrictions on emissions increases may be appropriate to protect visibility in~~
47 ~~affected Federal Class I Areas. The Clean Air Act (CAA) Amendments of 1990 require that~~
48 ~~the Grand Canyon Visibility Transport Commission (GCVTC) address the establishment of~~

** These states are Arizona, Colorado, Utah and New Mexico.

1 CACs. The GCVTC found that, in general, clean air comes to the Colorado Plateau from the
2 northwest. The Meteorological Subcommittee of the GCVTC delineated a CAC that
3 encompasses roughly SE Oregon and most of Idaho, Nevada and Utah (see Figure 3 on the
4 following page).

5
6 **~~[(C)] Treatment of Clean Air Corridors:~~**

7
8 **~~[(1)] (a) Comprehensive emissions tracking program.~~**

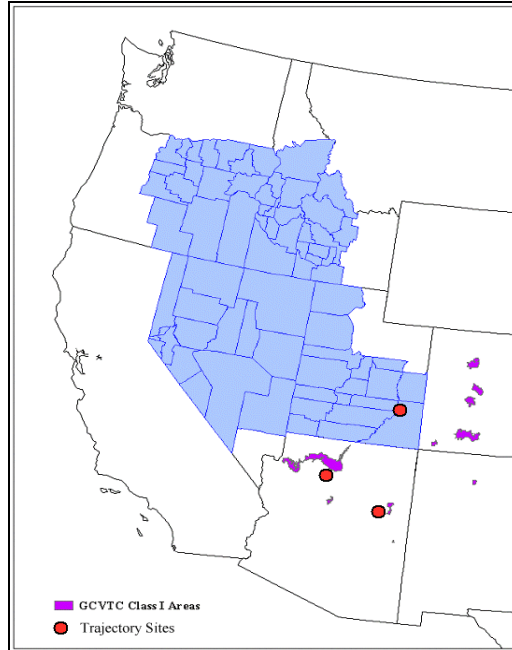
9
10 Pursuant to 40 CFR 51.309(d)(3), a comprehensive emissions tracking system has been
11 established to track emissions within portions of Oregon, Idaho, Nevada and Utah, that have
12 been identified as part of the Clean Air Corridor (CAC), as specified in ~~[Figure 3 on the~~
13 ~~following page]~~ B(b) below, to ensure that visibility is not degraded on the least-impaired
14 days in any of the 16 Class I Areas of the Colorado Plateau. The WRAP developed this
15 comprehensive emissions tracking system to assist these states in meeting this requirement.
16 Note that the CAC emissions tracking system does not apply here, since no portion of the
17 CAC lies within New Mexico.

18
19 Appendix B-SIP describes the comprehensive emissions tracking system and the process
20 the WRAP will use to summarize annual emission trends in order to identify any significant
21 emissions growth that could lead to visibility degradation in the 16 Class I Areas. Included in
22 this [document includes procedures to assess] summary will be an assessment of whether
23 any significant emissions growth has occurred within the CAC, in accordance with ~~[Section 4]~~
24 B(c) [of this chapter] below.

25
26 **~~[(2)] (b) Identification of Clean Air Corridors.~~**

27
28 Pursuant to 40 CFR 51.309(d)(3)(i), the ~~[Albuquerque-Bernalillo County Air Quality Control~~
29 ~~Board (AQCB)]~~ Department recognizes the Clean Air Corridor (CAC) indicated in Figure 3.
30 This CAC was identified using studies conducted by the Meteorological Subcommittee of the
31 GCVTC and updated by the Western Regional Air Partnership (WRAP), based on an
32 assessment described in the *WRAP Policy Paper on Clean Air Corridors* and related
33 technical analysis ~~[that]~~ conducted by the WRAP ~~[conducted]~~. Appendix B-SIP of this
34 implementation plan summarizes the *WRAP Policy Paper on Clean Air Corridors* and
35 contains additional technical work associated with the identification of the CAC.

1 **Figure 3: Map of the Clean Air Corridor in the Transport Region**



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6
7
8 **(3) (c) [Growth] Patterns in of growth within the Clean Air Corridor.**

9
10 Pursuant to 40 CFR 51.309(d)(3)(ii), the [AQCB] Department has determined, [~~the following:~~]
11 based on the *WRAP Policy Paper on Clean Air Corridors* and technical analysis [~~that~~]
12 conducted by the WRAP [conducted], that inside the Clean Air Corridor identified in B(b)
13 above there is no significant emissions growth occurring at this time [~~inside the Clean Air~~
14 ~~Corridor (CAC) identified in 2]~~ that is causing visibility impairment in any of the 16 Class I
15 Areas of the Colorado Plateau (see Appendix B-SIP).

16
17 The [AQCB] Department has determined that emissions growth in the CAC does not
18 adversely affect the 309 Federal Class I Area in New Mexico—the San Pedro Parks
19 Wilderness Area. Nor does this emissions growth adversely affect the other [~~fifteen~~] 15
20 Class I Areas on the Colorado Plateau. Appendix B-SIP contains a discussion of these
21 findings. Future emissions growth will be tracked as applicable in accordance with the
22 comprehensive emissions tracking system in [4] B(a) above. The WRAP will summarize
23 annual emission trends within the corridor and will assess whether any significant emissions
24 growth has occurred within the corridor.

25
26
27 **[(4) (d) [Growth] Patterns Of Growth Outside the Clean Air Corridor.**

28
29 Pursuant to 40 CFR 51.309(d)(3)(iii), the AQCB has determined, [~~the following:~~] based on
30 the *WRAP Policy Paper on Clean Air Corridors* and technical analysis [~~that~~] conducted by the
31 WRAP, [conducted], that, outside the Clean Air Corridor identified in B(b) above there is no
32 significant emissions growth occurring at this time [~~outside the Clean Air Corridor (CAC)~~

1 identified in ~~2 that is causing~~ impairing air quality within the CAC sufficient to cause any
2 visibility impairment in any of the 16 Class I Areas of the Colorado Plateau (see Appendix B-
3 SIP). As part of its annual summary of emission trends within the corridor, the WRAP will
4 assess emission and monitoring data trends outside the CAC in order to determine if
5 significant emissions growth is occurring outside the corridor that could be impairing air
6 quality within the corridor and resulting in visibility impairment in the 16 Class I Areas (see
7 Appendix B-SIP).

8
9
10 **~~(5)~~ (e) Actions if Impairment Inside or Outside the Clean Air Corridor Occurs.**

11
12 The Department, in coordination with the ~~[State of New Mexico]~~ other transport region states
13 and tribes, ~~[the Department]~~ will review the WRAP's annual summary of emission trends
14 within the ~~[Colorado Plateau Clear]~~ Clean Air Corridor (CAC) and will determine if any
15 significant emissions growth was identified either within the corridor or outside of it. If
16 significant emissions growth is identified, the Department, in coordination with the ~~[State of~~
17 ~~New Mexico]~~ other transport region states and tribes, will seek WRAP assistance in
18 conducting an analysis of the effects of this emissions growth in terms of possible impact on
19 air quality within the corridor and possible degradation of the least-impaired days in any of
20 the 16 Class I Areas of the Colorado Plateau.

21
22 Pursuant to 40 CFR 51.309(d)(3)(iv), if this analysis finds that this growth is causing visibility
23 impairment in the 16 Class I Areas, the Department, in coordination with the ~~[State of New~~
24 ~~Mexico]~~ other transport region states and tribes, will evaluate the need for additional
25 emission reduction measures and will identify an implementation schedule for ~~[any]~~ such
26 ~~[needed]~~ measures, if needed. The implementation of any additional emission reduction
27 measures shall be coordinated between the ~~[AQCB]~~ Department and all appropriate
28 transport region states and tribes, on a mutually agreed upon timetable, and reported to EPA
29 in accordance with the periodic progress reports required under 40 CFR 51.309(d)(10)(i).

30
31
32 **~~[(6)]~~ (f) Other Clean Air Corridors (CACs).**

33
34 Pursuant to 40 CFR 51.309(d)(3)(v), the ~~[AQCB]~~ Department has concluded that one other
35 Clean Air Corridor (CAC), the Grand Canyon National Park CAC, can be identified. This
36 finding is based on the WRAP Regional Technical Support Document (TSD), which
37 ~~[mentions that]~~ cites Green, et al. (1996) who conducted an alternative analysis of CACs for
38 the Grand Canyon (see Appendix B-SIP). Other than the two mentioned in this chapter, no
39 additional CACs have been identified for the Colorado Plateau Region at this time. Note that
40 no CAC or portion ~~[of a CAC]~~ thereof has been identified within New Mexico.

41
42 Although no formal update on this finding is required, the ~~[AQCB]~~ Department recognizes
43 that future modeling or monitoring data may indicate that other possible CACs exist. The
44 ~~[AQCB]~~ Department will notify EPA if there is evidence to support such a finding in the future,
45 and will take appropriate action pursuant to this requirement.

46
47 **~~[(7)] Clean Air Corridor Conclusion.~~**

48
49 Neither New Mexico nor Bernalillo County is included within the boundaries of either of the
50 Clean Air Corridors (CACs) identified in this chapter. ~~[Therefore, pursuant to the~~
51 ~~requirements in Section 51.309(d)(3)(v), the AQCB has determined that no additional clean~~

1 ~~air corridors exist beyond the one mentioned in 6 above.]~~ Based on technical analysis that
2 the WRAP conducted (see Appendix B-SIP), the ~~[AQCB]~~ [Department](#) does not believe that
3 Bernalillo County's emissions contribute to visibility impairment either within or outside of the
4 CACs identified.

5
6 This is ~~[mainly]~~ because the GCVTC found that clean air comes to the corridor mainly from
7 the northwest. Bernalillo County is located about 200 miles southeast of the Utah border (the
8 Corridor's southeastern-most edge). ~~[Therefore, Bernalillo County]~~ and lies generally
9 downwind of the CAC ~~[and, in general,]~~ hence, its emissions are not likely to be transported
10 into this Corridor and therefore are not likely to adversely affect it.

11 12 13 ~~[VI.]~~ **C. EMISSION REDUCTIONS FOR STATIONARY SOURCES**

14 15 ~~[A.]~~ **Background:**

16
17 The SO₂ Milestones and Backstop Trading Program ~~[were]~~ was developed to implement the
18 emissions reduction program for major industrial sources of sulfur dioxide (SO₂) ~~[described]~~
19 in accordance with ~~[40 CFR 51.309(h)]~~ 40 CFR 51.309(d)(4), [68 FR 33764, June 5, 2003].
20 The program is implemented through the following documents:

- 21
22 • The ~~[Bernalillo County]~~ Section 309 Regional Haze State Implementation Plan
23 Element for Albuquerque and Bernalillo County describes the overall program and
24 contains the ~~[Albuquerque Bernalillo County Air Quality Control Board's (AQCB's)]~~
25 Department's commitment to implement all parts of the program as outlined in the
26 Implementation plan element. The Implementation plan element establishes the
27 regional milestones, SO₂ emissions tracking requirements, and if the Western
28 Backstop SO₂ Trading Program ("WEB Trading Program") is triggered, the
29 Implementation plan element also describes how the Department shall determine
30 allocations and manage the allowance tracking system that is needed to implement
31 the program.
- 32
33 • 20.11.46 NMAC - *Sulfur Dioxide Emissions Inventory Requirements; Western*
34 *Backstop SO₂ Trading Program* (see Appendix D-O) contains the requirements that
35 shall apply to major industrial sources of sulfur dioxide (SO₂) as a backstop regulatory
36 program if the SO₂ milestones are exceeded. The regulation may never be
37 implemented if the goal to meet the regional SO₂ milestones through voluntary
38 ~~[means]~~ measures is achieved. If the regulation is implemented, it establishes the
39 procedures and compliance requirements for sources in the Trading Program.
- 40
41 • ~~[Major industrial sources]~~ 20.11.46.9 NMAC stipulates that, all stationary sources with
42 actual emissions of 100 tons per year or more of SO₂ are required to submit an
43 annual emissions inventory in the pre-trigger phase of the program to measure
44 compliance with the regional SO₂ milestones. If the backstop program is triggered
45 then these requirements will eventually be overridden by more rigorous monitoring
46 requirements in 20.11.46 NMAC.

47 48 49 ~~[B.]~~ **Requirements:**

1 Pages 35751-35752 in the Preamble to the Regional Haze Rule (RHR) discuss the
2 requirements for stationary sources. The stationary sources to which the requirements apply
3 are those sources that emit 100 **actual** tons per year (tpy) or more of sulfur dioxide (SO₂).
4 Section 309 originally contained two sets of requirements for controlling stationary source
5 emissions. A third set of requirements in 40 CFR 51.309(h) was proposed via 67 FR 30418,
6 May 6, 2002. These requirements were finalized via 68 FR 33764, June 5, 2003, and
7 became known as “the Annex” or *Revisions to the Regional Haze Rule*.

8
9 Section 309(f) of the RHR (64 FR 35773) required [~~submitting~~, submission of] an Annex to the
10 GCVTC report. A description of the requirements in Section 309(h) begins on page 33774 in
11 *Revisions to the Regional Haze Rule*, 67 FR 33764, June 5, 2003. The Annex contains SO₂
12 emission reduction milestones showing steady and continuous reductions [~~between~~] during
13 the period 2003-2018, greater than what would be achieved by applying Best Available
14 Retrofit Technology (BART) (see Appendix G-O for the complete rule citation). Section
15 309(d)(4) requires tracking emissions to ensure that the SO₂ milestones in the Annex are
16 met, and that a backstop market trading program would be implemented if the milestones are
17 not met. The new Section 309(h) has been added to reflect the elements of the submitted
18 Annex, and contains requirements related to adjusting the SO₂ milestones, determining
19 annual compliance with the milestones and key trading program elements.

20
21
22 **{C} Definitions:**

23
24 Note: The definitions in this section apply only to this Implementation plan and correspond to the
25 regulation 20.11.46 NMAC, *Sulfur Dioxide Emissions Inventory Requirements; Western Backstop SO₂*
26 *Trading Program* (“the regulation”).

27
28 **Account Certificate of Representation** means the completed and signed submission
29 required to designate an Account Representative for a WEB source or an Account
30 Representative for a general account.

31
32 **Account Representative** means the individual who is authorized through an Account
33 Certificate of Representation to represent owners and operators of the WEB source with
34 regard to matters under the WEB Trading Program or, for a general account, who is
35 authorized through an Account Certificate of Representation to represent the persons having
36 an ownership interest in allowances in the general account with regard to matters concerning
37 the general account.

38
39 **Act** means the federal Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.*

40
41 **Actual Emissions** means total annual sulfur dioxide emissions determined in accordance
42 with 20.11.46.16 NMAC, or determined in accordance with of 20.11.46.9 NMAC for sources
43 that are not subject to 20.11.46.16 NMAC.

44
45 **Allocate** means to assign allowances to a WEB source through Section ~~F(4)~~ C(1) of this
46 Implementation plan.

47
48 **Allowance** means the limited authorization under the WEB Trading Program to emit one ton
49 of SO₂ during a specified control period or any control period thereafter subject to the terms
50 and conditions for use of unused allowances as established by the Regulation.

1 **Allowance Limitation** means the tonnage of SO₂ emissions authorized by the allowances
2 available for compliance deduction for a WEB source for a control period under Subsection A
3 of 20.11.46.19 NMAC on the allowance transfer deadline for that control period.
4

5 **Allowance Tracking System** means the system developed by the Department where
6 allowances under the WEB Trading Program are recorded, held, transferred and deducted.
7

8 **Allowance Tracking System Account** means an account in the Allowance Tracking
9 System established for purposes of recording, holding, transferring, and deducting
10 allowances.
11

12 **Allowance Transfer Deadline** means the deadline established in Subsection B of
13 20.11.46.17 NMAC when allowances must be submitted for recording in a WEB source's
14 compliance account in order to demonstrate compliance for that control period.
15

16 **Annex** means the requirements in 40 CFR 51.309(h) of the Regional Haze Rule (RHR), also
17 referred to as Revisions to the Regional Haze Rule, which was published in 67 FR 33764,
18 June 5, 2003 and became effective August 4, 2003.
19

20 **Bernalillo County** means the jurisdiction of the air quality program that covers the
21 Albuquerque city limits and all of the remaining areas of Bernalillo County, except for Tribal
22 lands.
23

24 **Board ("the Board")** means the Albuquerque-Bernalillo County Air Quality Control Board
25 (AQCB).
26

27 **Compliance Account** means an account established in the Allowance Tracking System
28 under Subsection A of 20.11.46.15 NMAC for the purpose of recording allowances that a
29 WEB source might hold to demonstrate compliance with its allowance limitation.
30

31 **Compliance certification** means a submission to the [Board] AQCB by the Account
32 Representative as required under Subsection B of 20.11.46.19 NMAC to report a WEB
33 source's compliance or noncompliance with this regulation.
34

35 **Control Period** means the period beginning January 1 of each year and ending on
36 December 31 of the same year, inclusive.
37

38 **Department** means the City of Albuquerque Environmental Health Department, Air Quality
39 Division.
40

41 **Emissions Tracking Database** means the central database where SO₂ emissions for WEB
42 sources, as recorded and reported in accordance with the regulation, are tracked to
43 determine compliance with allowance limitations.
44

45 **Emission Unit or Unit** means any part of a stationary source that emits or would have the
46 potential to emit any pollutant ~~submitted to regulations under~~ regulated pursuant to the Clean
47 Air Act (CAA).
48

49 **EPA Administrator** means the Administrator of the United States Environmental Protection
50 Agency or the Administrator's duly authorized representative.
51

1 **Existing Source** means a stationary source that commenced operation before the WEB
2 Trading Program Trigger Date.

3
4 **Floor Allocation** means the amount of allowances set by the [~~Albuquerque-Bernalillo~~
5 ~~County Air Quality Control Board (AQCB)~~] AQCB in accordance with this Implementation
6 plan element that represents the minimum necessary for a source to operate under stringent
7 control assumptions.

8
9 **Fugitive emissions** are those emissions that could not reasonably pass through a stack,
10 chimney, vent, or other functionally equivalent opening.

11
12 **General Account** means an account established in the Allowance Tracking System under
13 20.11.46.15 NMAC for the purpose of recording allowances held by a person that are not to
14 be used to show compliance with an allowance limitation.

15
16 **Milestone** means the maximum level of stationary source regional sulfur dioxide emissions
17 for each year from 2003 to 2018, established according to the procedures in Section [~~D~~] A of
18 this Implementation Plan.

19
20 **New WEB Source** means a WEB source that commenced operation on or after the WEB
21 Trading Program Trigger Date.

22
23 **New Source Set-aside** means a pool of allowances that are available for allocation to new
24 WEB sources and modified WEB sources that have increased capacity in accordance with
25 the provisions of Section [~~F(4)(d)~~] C1.3 of this Implementation Plan.

26
27 **Owner or operator** means any person who is an owner or who operates, controls or
28 supervises a WEB source, and includes, but is not [~~be~~] limited to, any holding company,
29 utility system or plant manager.

30
31 **Potential to emit** means the maximum capacity of a stationary source to emit any air
32 pollutant under its physical and operational design. Any physical or operational limitation on
33 the capacity of a source to emit an air pollutant, including air pollution control equipment and
34 restrictions on hours of operation or on the type or amount of material combusted, stored or
35 processed, shall be treated as part of its design if the limitation is enforceable by the EPA
36 Administrator.

37
38 **Program Trigger Date** means the date that the AQCB determines that the WEB Trading
39 Program has been triggered in accordance with the provisions of Section [~~D(5)~~] A2 of this
40 Implementation Plan.

41
42 **Program trigger years** means the years shown in Table 3, column 3, of [~~the SO₂ Milestones~~
43 ~~and Backstop Trading Program~~] this Implementation Plan element for the applicable
44 milestone if the WEB Trading Program is triggered as described in [~~Section D of the SO₂~~
45 ~~Milestones and Backstop Trading Program~~] Part A of this Implementation Plan element.

46
47 **Reducible Allocation** means the amount of allowances set by the AQCB in accordance with
48 Section [~~F(4)(k)~~] C1.1(b)(9) of this Implementation plan element that represents, for each
49 source, emissions in excess of the floor allocation that shall be reduced over time as the
50 regional milestone is decreased.

1 **Renewable Energy Resource** means a resource that generates electricity by non-nuclear
2 and non-fossil technologies that result in low or no air emissions. The term includes
3 electricity generated by wind energy technologies; solar photovoltaic and solar thermal
4 technologies; geothermal technologies; technologies based on landfill gas and biomass
5 sources, and new low-impact hydropower that meet the Low-Impact Hydropower Institute
6 criteria. Biomass includes agricultural, food and wood wastes. For the purposes of this
7 Implementation plan, a renewable energy resource does not include pumped storage or
8 biomass from municipal solid waste, black liquor, or treated wood.

9
10 **Retired Source** means a WEB source that has received a retired source exemption as
11 provided in Subsection E of 20.11.46.11 NMAC. Any retired source resuming operations
12 under Paragraph (4) of Subsection E of 20.11.46.11 NMAC must submit its exemption as
13 part of its registration materials.

14
15 **Serial number** means, when referring to allowances, the unique identification number
16 assigned to each allowance by the Tracking Systems Administrator, in accordance with
17 Subsection B of 20.11.46.14 NMAC.

18
19 **SO₂ emitting unit** means any equipment that is located at a WEB source or other stationary
20 source that emits SO₂.

21
22 **Special Reserve Compliance Account** means an account established in the Allowance
23 Tracking System under Subsection A of 20.11.46.15 NMAC for the purpose of recording
24 allowances that a WEB source might hold to demonstrate compliance with its allowance
25 limitation for emission units that are monitored for SO₂ in accordance with Subsection B of
26 20.11.46.16 NMAC.

27
28 **Stationary Source** means any building, structure, facility or installation that emits or may
29 emit any air pollutant subject to regulation under the Clean Air Act (CAA).

30
31 **Submit** means [sent] to send to the appropriate authority under the signature of the Account
32 Representative. For purposes of determining when something is submitted, an official U.S.
33 Postal Service postmark, or equivalent electronic time stamp, shall establish the date of
34 submittal.

35
36 **Ton** means 2000 pounds and, for any control period, any fraction of a ton equaling 1000
37 pounds or more shall be treated as one ton and any fraction of a ton equaling less than 1000
38 pounds shall be treated as zero tons.

39
40 **Tracking System Administrator** means the person designated by the AQCB in
41 collaboration with other participating states and tribes as the administrator of the WEB
42 Allowance Tracking System and the emission tracking database.

43
44 **Tribal Set Aside** means a 20,000-8,500-ton SO₂ WEB allowance allocated to tribes on an
45 annual basis. The tribes will decide how to distribute the allowances in the set-aside among
46 tribes in the region. The set-aside is intended to ensure equitable treatment for tribal
47 economies and to prevent barriers to economic development.

48
49 **Trigger** refers to the activation of the WEB Trading Program for SO₂ in accordance with
50 Section A of the Implementation Plan.

1 **WEB source** means a stationary source that meets the applicability requirements of
2 20.11.46.11 NMAC.

3
4 **Western Backstop Sulfur Dioxide (SO₂) Trading Program (“WEB Trading Program”)**
5 refers to Sections 20.11.46.11 NMAC through 20.11.46.22 NMAC of 20.11.46 NMAC, *Sulfur*
6 *Dioxide Emissions Inventory Requirements; Western Backstop SO₂ Trading Program*, which
7 shall be triggered as a backstop in accordance with the provisions in the SO₂ Milestones and
8 Backstop Trading Program Implementation Plan element, if necessary, to ensure that
9 regional SO₂ emissions are reduced.

10
11 **Western Regional Air Partnership (WRAP)** means the collaborative effort of tribal
12 governments, state governments, and federal agencies to promote and monitor
13 implementation of recommendations from the Grand Canyon Visibility Transport Commission
14 (GCVTC) authorized under Section 169B(f) of the CAA, and to address other common
15 Western regional air quality issues.

16
17
18 ~~[(D)]~~ **PART A - Milestones and Determination of Program Trigger:**

19
20 ~~[(1)]~~ **A1 Regional Sulfur Dioxide (SO₂) Milestones.**

21
22 **A1.1 Base Milestone Values**

23
24 ~~[The term milestone, as found in 40 CFR 51.309(b)(5), means “the maximum level of annual~~
25 ~~regional SO₂ emissions for a given year, assessed annually consistent with paragraph (h)(2)~~
26 ~~of this section beginning in the year 2003”.] The regional SO₂ [base] milestones for the years~~
27 ~~2003 through 2018 are provided in Table 3. The [base] milestones shall be adjusted~~
28 ~~annually as described in [Paragraphs] Paragraph [2 and 3] A1.2 and A1.3 (on the following~~
29 ~~pages) of this implementation plan.~~

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Table 3. [~~Base~~] Sulfur Dioxide Emissions Milestones [~~(excludes Smelter Set-aside)~~]

Column 1	Column 2	Column 3
For the year	the [base] regional sulfur dioxide milestone is	and the annual SO ₂ emissions for these years will determine whether emissions are greater than or less than the milestone
2003 ††	[682,000] <u>400,636</u> tons SO ₂	2003
2004	[682,000] <u>400,636</u> tons SO ₂	Average of 2003 and 2004
2005	[682,000] <u>400,636</u> tons SO ₂	Average of 2003, 2004 and 2005
2006	[682,000] <u>400,636</u> tons SO ₂	Average of 2004, 2005 and 2006
2007	[682,000] <u>400,636</u> tons SO ₂	Average of 2005, 2006 and 2007
2008	[680,333] <u>288,854</u> 365,489 tons SO ₂	Average of 2006, 2007 and 2008
2009	[678,667] <u>330,342</u> tons SO ₂	Average of 2007, 2008 and 2009
2010	[677,000] <u>295,195</u> tons SO ₂	Average of 2008, 2009 and 2010
2011	[677,000] <u>295,195</u> tons SO ₂	Average of 2009, 2010 and 2011
2012	[677,000] <u>295,195</u> tons SO ₂	Average of 2010, 2011 and 2012
2013	[659,667] <u>248,544</u> 281,585 tons SO ₂	Average of 2011, 2012 and 2013
2014	[642,333] <u>267,975</u> tons SO ₂	Average of 2012, 2013 and 2014
2015	[625,000] <u>254,365</u> tons SO ₂	Average of 2013, 2014 and 2015
2016	[625,000] <u>254,365</u> tons SO ₂	Average of 2014, 2015 and 2016
2017	[625,000] <u>254,365</u> tons SO ₂	Average of 2015, 2016 and 2017
2018	[480,000] <u>247,222</u> 239,599 tons SO ₂	Year 2018 only
[Each year after 2018 until replaced by an approved SIP	[No more than] [480,000] <u>239,599</u> tons SO₂ [unless the milestones are replaced with a different program that meets any BART and reasonable progress requirements established in 51.309]	[3-year average of the year and the two previous years, or any alternative provided in any future implementation plan revisions under 51.308(f)] Annual; no multiyear averaging

5

†† [The 2003 through 2007 milestones have been adjusted to include only the four states that are part of the regional backstop trading program using the adjustment methodology in the 2003 Regional Haze SIP](#)

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~~[(2) A1.2 Adjustments for participation by eligible States and Tribes.~~

~~The amount provided in Table 4a below shall be subtracted from the milestone in Table 3 for each state and tribe that does not have an Implementation Plan approved by the EPA Administrator as meeting the requirements of 40 CFR 51.309 as of December 31 of the year following the milestone year. The first adjustment to the 2003 milestone shall be made no later than March 31, 2005, and shall be based on all states and tribes that do not have a federally approved Implementation Plan as of December 31, 2004.]~~

~~Table 4a. (Years 2003-2010) Amounts of SO₂ tons to be Subtracted from the Base Milestones for States and Tribes that do not have an Approved Implementation Plan under 40 CFR 51.309. (Data includes new source set aside but not smelter set aside.)~~†
RESERVED

[State or Tribe	2003	2004	2005	2006	2007	2008	2009	2010
1. Arizona	117,372	117,372	117,372	117,372	117,372	117,941	118,511	119,080
2. California	37,343	37,343	37,343	[37,784] 37,343	37,343	36,363	35,382	34,402
3. Colorado	98,897	98,897	98,897	98,897	98,897	98,443	97,991	97,537
4. Idaho	18,016	18,016	18,016	18,016	18,016	17,482	16,948	16,414
5. Nevada	20,187	20,187	20,187	20,187	20,187	20,282	20,379	20,474
6. New Mexico	84,624	84,624	84,624	84,624	84,624	84,143	83,663	83,182
7. Oregon	26,268	26,268	26,268	26,268	26,268	26,284	26,300	26,316
8. Utah	42,782	42,782	42,782	42,782	42,782	42,795	42,806	42,819
9. Wyoming	155,858	155,858	155,858	155,858	155,858	155,851	155,843	155,836
10. Navajo Nation	53,147	53,147	53,147	53,147	53,147	53,240	53,334	53,427
11. Shoshone-Bannock Tribe of the Fort Hall Reservation	4,994	4,994	4,994	4,994	4,994	4,994	4,994	4,994
12. Ute Indian Tribe of the Uintah & Ouray Reservation	1,129	1,129	1,129	1,129	1,129	1,131	1,133	1,135
13. Wind River Reservation	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384

† These numbers differ from Annex opt in/ out tables in that the smelter set aside is excluded and the new source set aside is included.

~~Table 4b. [[Years 2011-2018] Amounts of SO₂ tons to be Subtracted from the Base Milestones for States and Tribes that do not have an Approved Implementation Plan under 40 CFR 51.309.]~~RESERVED

[State or Tribe	2011	2012	2013	2014	2015	2016	2017	2018
1. Arizona	119,080	119,080	116,053	113,025	109,998	109,998	109,998	82,302
2. California	34,402	34,402	33,265	32,128	30,991	30,991	30,991	27,491
3. Colorado	97,537	97,537	94,456	91,375	88,294	88,294	88,294	57,675
4. Idaho	16,414	16,414	15,805	15,197	14,588	14,588	14,588	13,227
5. Nevada	20,474	20,474	20,466	20,457	20,449	20,449	20,449	20,232
6. New Mexico	83,182	83,182	81,682	80,182	78,682	78,682	78,682	70,000
7. Oregon	26,316	26,316	24,796	23,277	21,757	21,757	21,757	8,281
8. Utah	42,819	42,819	41,692	40,563	39,436	39,436	39,436	30,746
9. Wyoming	155,836	155,836	151,232	146,629	142,025	142,025	142,025	97,758
10. Navajo Nation	53,427	53,427	52,707	51,986	51,266	51,266	51,266	44,772
11. Shoshone-Bannock Tribe of the Fort Hall Reservation	4,994	4,994	4,994	4,994	4,994	4,994	4,994	4,994
12. Ute Indian Tribe of the	1,135	1,135	1,135	1,135	1,135	1,135	1,135	1,135

Uintah & Ouray Reservation								
13. Wind River Reservation	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384

~~† These numbers differ from Annex opt-in/-out tables in that the smelter set-aside is excluded and the new source set-aside is included.~~

~~**(3) A1.3 Adjustment for Future Operation of Copper Smelters in Arizona and New Mexico.**~~

~~If either the BHP San Manuel smelter in Arizona or the Phelps Dodge Hidalgo smelter in New Mexico resumes operation, the milestones shall be increased as described below. The adjustment shall occur only if the respective state has a State Implementation Plan (SIP) approved by the EPA Administrator under 40 CFR 51.309. Once the adjustments have been made, the milestones shall not be changed due to future suspensions or changes in plant operations, except as provided below. If Arizona or New Mexico elects not to submit a SIP under 40 CFR 51.309, the emissions for the smelters in the state opting-out will be subtracted from the smelter set-aside.~~

~~(a) If one or both smelters resume operations under their existing permits, the milestone shall automatically be adjusted upward for each smelter respectively by the following amounts:~~

- ~~1. Phelps Dodge Corporation, Hidalgo Smelter: 22,000 tons SO₂~~
- ~~2. BHP, San Manuel Smelter: 16,000 tons SO₂~~
- ~~3. For the 2013 through 2018 milestones, the maximum increase shall be 30,000 tons SO₂.~~

~~(b) If New Mexico determines that either smelter will resume operation by operating only a portion of the plant, the milestone adjustment in (a) shall be reduced by a percentage to reflect current conditions. If the smelter resumes normal operations at a later date, the full adjustment described in (a) shall be applied.~~

~~(c) If one or both smelters resume operations after going through new source review, the milestone adjustment shall be based on the new permitted level for the source, but in no instance may the adjustment to the milestones exceed 22,000 tons SO₂ per year for the Hidalgo Smelter or 16,000 tons SO₂ per year for the San Manuel Smelter.~~

~~[(d) If one or both smelters do not resume operation, each of the remaining existing smelters in the region shall be given a facility specific set-aside as described in Table 3] the Albuquerque Bernalillo County Air Quality Control Board (AQCB) will determine, based on~~

A1.2. Smelter Specific Set-Aside.

Since 1990 the existing copper smelters in the west have made significant SO₂ emission reductions. In addition, 3 of the 6 smelters that were operating in 1990 have now been permanently closed. Because of the global nature of this industry, it is not expected that any new copper smelters will be constructed between 2008 and 2018. Therefore, the representative emission estimates that were developed for the existing copper smelters in the 2003 SIP were held constant through 2018. There is the possibility that ore from mines located near the closed smelters could be transported to the existing smelters for processing. A small smelter-specific set-aside has been created to account for this possible production increase. The smelter-specific set-aside will be determined using

1 the calculation procedures in provision A3.4, ~~the amount of facility specific and the~~ set-aside
 2 ~~that~~ will be added to the milestone to account for capacity expansion at the remaining
 3 smelters. This set-aside shall only be available for use if sulfur input and emissions from the
 4 copper smelters are above the baseline [level] levels listed in [Table 3] Table 5 in any
 5 particular year as a result of increased capacity. ~~The actual emissions above the assumed~~
 6 ~~baseline level up to the specified set-aside level for each smelter shall be added to the~~
 7 ~~milestone to account for the increased capacity.] The increase to the milestone will be based~~
 8 ~~on a smelter's proportional increase above its baseline sulfur input.~~ The set-aside shall be
 9 recalculated every year to reflect actual operations of the remaining copper smelters. The
 10 set-aside may not be traded. Table 5 [below] contains the preliminary smelter set aside
 11 values.
 12
 13
 14
 15

Table 5: Preliminary Smelter-Specific Set Aside

Company / Smelter	Baseline Sulfur Input*	Baseline Allocation	Smelter-Specific Set-Aside
[BHP San Manuel]	417,200 tons	16,000 tons SO₂	1,500 tons SO₂
Asarco Hayden	235,000 tons	23,000 tons SO ₂	3,000 tons SO ₂
[Phelps Dodge Chino]	212,800 tons	16,000 tons SO₂	3,000 tons SO₂
Phelps Dodge Hidalgo]	256,800 tons	22,000 tons SO₂	4,000 tons SO₂
Phelps Dodge Miami	208,700 tons	8,000 tons SO ₂	[2,000] 0 tons SO ₂
Kennecott Salt Lake	340,269 tons	1,000 tons SO ₂	100 tons SO ₂
TOTAL	[1,670,769] 783,969 tons	[86,000] 32,000 tons SO₂	[13,600] 3,100 tons SO₂

16 ~~*State needs to verify these figures.~~

17
 18 Note: The smelter baseline has decreased from 86,000 tons SO₂ in the 2003 SIP to the
 19 current value of 32,000 tons SO₂ due to the permanent closure ~~of~~ of the BHP San Manuel,
 20 Phelps Dodge Chino, and Phelps Dodge Hidalgo smelters. Smelter emissions were 148,510
 21 tons SO₂ in 1990
 22

23 ~~[(4) A1.4]~~ **A1.3 Other Milestone Adjustments.**

24
 25 **(a)** All other milestone adjustments shall require a SIP revision. Section A3.3 of this
 26 implementation plan element outlines adjustments to be made to the emissions inventory to
 27 ensure a consistent comparison to the milestones. These adjustments shall be incorporated
 28 into the milestones every five years as part of the periodic implementation plan revisions
 29 required by 40 CFR 51.309(d)(10). The ~~[Albuquerque-Bernalillo County Air Quality Control~~
 30 ~~Board~~ **AQCB** **Department** shall track all adjustments to the milestone pursuant to Section
 31 ~~[D(6)(c)]~~ A3.3.
 32

33 **(b)** Within ~~[ninety]~~ 90 days of the periodic implementation plan revision incorporating
 34 adjustments based on section ~~[D(6)(c)]~~ A3.3, the ~~[AQCB]~~ **Department** shall provide the date
 35 of the SIP revision reflecting the milestone adjustment to sources whose records were used
 36 as the basis for the milestone adjustment and state that the source needs to retain the record

1 at least five years from the date of the SIP revision, or ~~[ten]~~ 10 years from the date of
2 establishing the record, whichever is longer.

3
4 (c) Opt-in/Opt-out Provisions for States and Tribes. The regional milestones in Table 3 were
5 developed for a four-state region: Arizona, New Mexico, Utah, and Wyoming. Other western
6 states and tribes may choose to join this backstop trading program in the future. In addition,
7 a participating state or tribe may opt out of the program in the future. The addition or
8 subtraction of a state or tribe from the program will require a SIP/TIP revision for all
9 participating states and tribes to adjust the regional milestones, and will not occur
10 automatically. Any state or tribe that wishes to opt in or out of the program will propose
11 milestone adjustments to the participating states and tribes using the same methodology that
12 was used to develop the milestones in Table 3. A new participant must agree to develop a
13 SIP and backstop trading rule that is consistent with those adopted by the other participating
14 states and tribes.

15
16
17 **~~[(5)]~~ A2 Regional Program Administration.**

18
19 **~~[(a)]~~ A2.1 Pre-trigger tracking of regional SO₂ emissions.**

20
21 The [AQCB] Department shall work cooperatively with the states and tribes that are
22 participating in the SO₂ Milestones and Backstop Trading Program to ensure that an
23 emission tracking system for the regional SO₂ inventory is developed and maintained. The
24 Western Regional Air Partnership (WRAP) compiled the SO₂ emission inventories that were
25 used during the development of the Annex and subsequent SIP revisions, and the WRAP
26 continues to refine and improve the overall tracking system for regional haze.

27
28 The WRAP shall maintain the pre-trigger emissions tracking functions outlined in this
29 Implementation Plan element for the foreseeable future. If the WRAP is no longer able to
30 fulfill this function, then the ~~[Albuquerque-Bernalillo County Air Quality Control Board AQCB~~
31 ~~("the Board")]~~ Department shall ensure that other arrangements are made, either through a
32 different regional organization, independently, through a contractor, or in collaboration with
33 the State of New Mexico to maintain the SO₂ tracking system that is described in this
34 Implementation plan. The [AQCB] Department is responsible for all regional program
35 administration functions as described in this Implementation plan. The [AQCB] Department
36 shall perform these functions through the WRAP, as the [AQCB] Department agent.

37
38 The WRAP shall have no authority to make regulatory determinations. The WRAP has
39 limited authority under this Implementation plan to perform tracking and accounting functions,
40 prepare reports, and perform other administrative functions as directed by the states and
41 tribes. The [AQCB] Department shall work expeditiously to correct any problems if the
42 WRAP fails to perform any of the functions described in the SIP in a timely manner.

43
44 **~~[(b)]~~ A2.2 Designation of the Tracking System Administrator (TSA).**

45
46 If the backstop trading program is triggered due to an exceedance of the SO₂ milestones as
47 outlined in Section ~~[D(6)]~~ A3 of this Implementation plan, the [AQCB] Department shall work
48 cooperatively with the other participating states and tribes to designate one Tracking System
49 Administrator (TSA). The TSA shall be designated as expeditiously as possible, but no later
50 than six months after the program trigger date. In addition, before the TSA is designated, the
51 Department shall have entered into a binding contract or inter-governmental agreement with

1 the TSA that shall require the TSA to perform all TSA functions described in this
2 Implementation plan. In addition, the AQCB Department must obtain sufficient authority to
3 ensure the functions in the Implementation Plan are carried out by the TSA.
4

5 **~~[(e)]~~ A2.3 Information Provided by other States and Tribes.**
6

7 The Department shall accept the emission inventory and permitting information provided by
8 the other participating states and tribes in order to determine the milestone value and
9 program trigger if such ~~[other]~~ states and tribes have provided proper documentation and
10 followed the public notification process outlined in Sections ~~[D(6)(h-j)]~~ A3.6-A3.8 of this
11 Implementation plan. ~~[In addition, the AQCB must obtain sufficient authority to ensure the~~
12 ~~functions in the implementation plan element are carried out by the TSA.]~~
13

14
15 **~~[(6)]~~ A3 Determination of Program Trigger (& Annual Emissions Report)**
16

17 **If and only if, the actual SO₂ emissions from any source subject to 20.11.46 NMAC are**
18 **greater than or equal to 100 tons per year (TPY), shall the AQCB comply with this**
19 **Section's requirements:**
20

21 **(a) A3.1** The ~~[Albuquerque-Bernalillo County Air Quality Control Board (AQCB)]~~ Department
22 shall submit an annual emissions report (covering the jurisdiction of the AQCB) to the WRAP
23 and all participating states and tribes by September 30 of each year. The report shall
24 document actual sulfur dioxide (SO₂) emissions during the previous calendar year for all
25 sources subject to the requirements of ~~[20.11.46 NMAC Sulfur Dioxide Emissions Inventory~~
26 ~~Requirements; Western Backstop Sulfur Dioxide Trading Program]~~ 20.11.46.9 NMAC,
27 Emission Tracking Requirements for Sulfur Dioxide Emission Inventories. The first report for
28 calendar year 2003 ~~[shall be]~~ was submitted by September 30, 2004. This report was not
29 required, but instead was generated due to a misunderstanding of the SO₂ threshold as
30 being 100 TPY **Potential** To Emit (PTE) instead of 100 TPY **Actual** emissions. The
31 Department shall prepare the supporting documentation that is included with the annual
32 emissions report as noted in the provisions A3.2 & A3.3 (below).
33

34 **[(b)] A3.2** The annual emissions report for Bernalillo County shall include ~~[an emissions~~
35 ~~exceptions]~~ a source emissions change report that contains the following information:
36

37 (a) Identification of any new sources that were not contained in the previous calendar
38 year's emissions report, and an explanation of why the source is now included in the
39 program;

40 (b) Identification of any sources that were included in the previous year's report and are
41 no longer included in the program, and an explanation of why this change has occurred;
42 and
43

44 (c) An explanation for emissions variations at any applicable source that exceeds +/- 20
45 percent from the previous year.
46

47
48 **[(e)] A3.3** The annual emissions report for Bernalillo County shall include a proposed
49 emissions adjustment as described in (a) through ~~(d)~~ (c) below to ensure a consistent
50 comparison to the milestones.

1
2 **(a) Changes in flow rate measurement methods.** The provisions in this Subsection
3 (a), shall apply only to the 2003-2007 milestone report. Actual emission inventories for
4 utilities that use EPA's Reference Method 2F, 2G, or 2H to measure stack flow rate will
5 be adjusted to be comparable with the flow rate assumptions that were used in 1999, the
6 base year inventory for the Annex, ~~[except emissions for the year 2018 shall not be~~
7 ~~adjusted].~~ The adjustment may be calculated using any of the following three methods.
8

9 1. Directly determine the difference in flow rate through a side-by-side comparison
10 of data collected with the new and old flow reference methods during a Relative
11 Accuracy Test Audit (RATA) test.
12

13 2. Compare the annual average heat rate using Acid Rain heat input data
14 (MMBtu) and total generation (MWHrs) as reported to the federal Energy
15 Information Administration (EIA). Under this approach, the flow adjustment factor
16 shall be calculated using the following ratio:
17

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

18
19
20
21 3. Compare the standard CFM per MW before and after the new flow reference
22 method based on CEMs data submitted in the Acid Rain Program, as follows:
23

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

24
25
26
27 ~~[[Note: Adjustments done under options 2 and 3 may be influenced by operational factors and~~
28 ~~not just measurement bias. The Department will need to address this when changes to the~~
29 ~~milestones are contemplated].]~~
30

31 **(b) Changes in emission monitoring or calculation methods:** Actual emission
32 inventories for sources that change the method of monitoring or calculating their
33 emissions shall be adjusted to be comparable to the emission monitoring or calculation
34 method that was used in the base year inventory ~~[for the Annex].~~
35 The base year inventory for the 2003-2007 milestone report is 1999 for utilities and 1998
36 for all other sources. The base year inventory for the 2008 and later milestone reports is
37 2006 for utilities and 2005 for all other sources.
38

39 **(c) Changes due to enforcement actions:**
40

41 1. **Adjustments due to enforcement actions arising from settlements.** ~~[The~~
42 ~~implementation plan element must provide for]~~ Adjustments to the milestones
43 shall be made as specified in Section ~~[D(6)(c) bullets 3 and 4]~~ A3.3(c)3 and
44 A3.3(c)4, if:
45

46 (A) an agreement to settle an action, arising from allegations of a failure of an
47 owner or operator of an emissions unit at a source in the program to comply
48 with applicable regulations ~~[that]~~ which were in effect during the base year, is
49 reached between the parties to the action;
50

1 (B) the alleged failure to comply with applicable regulations affects the
2 assumptions that were used in calculating the source's base year and
3 forecasted sulfur dioxide emissions; and

4
5 (C) the settlement includes or recommends an adjustment to the milestones.

6
7 **2. Adjustments due to enforcement actions arising from administrative or**
8 **judicial orders.** ~~[The implementation plan element must also provide for]~~
9 Adjustments shall be made to the milestones as directed by any final
10 administrative or judicial order, as specified in ~~[Section D(6)(c), bullets 3 and 4]~~
11 Sections A3.3(c)3 and A3.3(c)4. Where the final administrative or judicial order
12 does not include a reforecast of the source's baseline, the ~~[Albuquerque Bernalillo~~
13 ~~County Air Quality Control Board AQCB] Department~~ or its designee shall
14 evaluate whether a reforecast of the source's baseline emissions is appropriate.
15

16 **3. Adjustments for enforcement actions.** ~~[The implementation plan element~~
17 ~~must provide that]~~ Based on ~~[Section D(6)(c), bullets 3 and 4]~~ Sections A3.3(c)3
18 and A3.3(c)4, the milestone must be decreased by an appropriate amount based
19 on a reforecast of the source's decreased sulfur dioxide emissions. The
20 adjustments to the milestone do not become effective until after the source has
21 reduced its sulfur dioxide emissions as required in the settlement agreement, or
22 administrative or judicial order. All adjustments based upon enforcement actions
23 must be made in the form of an implementation plan revision that complies with
24 the procedural requirements of 40 CFR 51.102 and 40 CFR 51.103.
25

26 **4. Documentation of adjustments for enforcement actions.** In the periodic
27 implementation plan revision required under 40 CFR 51.309(d)(10), the
28 Department shall include the following documentation of any adjustment due to an
29 enforcement action:
30

31 (A) Identification of each source under the AQCB's jurisdiction which has
32 reduced sulfur dioxide emissions pursuant to a settlement agreement, or an
33 administrative or judicial order;

34
35 (B) For each source identified, a statement indicating whether the milestones
36 were adjusted in response to the enforcement action;

37
38 (C) Discussion of the rationale for the ~~[AQCB's]~~ Department's decision to adjust
39 or not to adjust the milestones; and

40
41 (D) If extra SO₂ emissions reductions (over and above those reductions needed
42 for compliance with the applicable regulations) were part of an agreement to
43 settle an action, a statement indicating whether such reductions resulted in any
44 adjustment to the milestones or allowance allocations, and a discussion of the
45 rationale for the ~~[AQCB's]~~ Department's decision on any such adjustment.
46

47 **~~[(d)]~~ A3.4** The annual SO₂ milestone and emissions report for Bernalillo County shall
48 document any adjustments that should be made to the milestone for the previous year as
49 described below.

50
51 (a) ~~[The Department shall document the submittal date of this Implementation Plan to~~

Albuquerque-Bernalillo County, NM Regional Haze SIP Element

40

~~PUBLIC REVIEW DRAFT Showing Changes To EPA & FLM Review Draft~~
~~[8/23/07] 9/29/07~~

FINAL DRAFT 11/14/07 [Floor Amendments shown in RED]

1 ~~implement the regional WEB Trading Program, and the approval date by the EPA~~
2 ~~Administrator, if applicable.~~

3
4 ~~(b) The State of New Mexico shall determine the status of Phelps Dodge Hidalgo copper~~
5 ~~smelter during the previous year. If the smelter resumed operation in the milestone year,~~
6 ~~the report shall include:~~

7 ~~1. The date the smelter resumed operation;~~

8
9 ~~2. A determination by New Mexico that either,~~

10 ~~(i) the smelter resumed production consistent with past operations,~~

11
12 ~~(ii) the smelter was required to go through new source review, in which~~
13 ~~case New Mexico shall include the new permitted limit for sulfur~~
14 ~~dioxide for the Phelps Dodge Hidalgo smelter in the report, or~~

15
16 ~~(iii) the smelter resumed operations in a substantially different manner~~
17 ~~such that emissions will be less than for past operations, in which case~~
18 ~~New Mexico shall determine expected emissions from the operation;~~
19 ~~and~~

20
21
22 ~~3. a proposed adjustment to the sulfur dioxide milestone to account for the~~
23 ~~operation of the Phelps Dodge Hidalgo smelter.~~

24
25 ~~(e)} **This provision applies only to Arizona and Utah.** Comparison of actual emissions~~
26 ~~from all smelters in [~~New Mexico~~] ~~Arizona and Utah~~ to the baseline emissions level for~~
27 ~~that smelter are listed in Table 5. If actual emissions and sulfur input are greater than the~~
28 ~~baseline [~~level~~] levels in Table 5, [~~and either the BHP San Manuel smelter in Arizona or~~~~
29 ~~~~the Phelps Dodge smelter in New Mexico have not resumed operation,~~] the State of New~~
30 ~~Mexico in coordination with the Department and the WRAP, shall determine the~~
31 ~~milestone adjustment by [~~subtracting the baseline level from the source's actual~~~~
32 ~~~~emissions.~~] determining the increase in the milestone based on the proportional increase~~
33 ~~in sulfur input over baseline levels. For each smelter, the adjustment shall not exceed the~~
34 ~~smelter-specific set-aside listed in Table 5.~~

1
2 The following example is for illustrative purposes:
3

4 Asarco's baseline SO₂ emissions are 23,000 tons
5 Asarco's baseline sulfur input is 235,000 tons
6

7 For example, in 2005:
8 Asarco's SO₂ emissions were 25,000 tons
9 Asarco's sulfur input was 250,000 tons.
10

11 Because Asarco's 2005 emissions and sulfur input exceeded it's baseline
12 emissions and sulfur input: need to calculate the percent increase in sulfur
13 input in the year 2005

14 = [(2005 sulfur input) - (baseline sulfur input)] ÷ [baseline sulfur input]
15 = [250,000 - 235,000] ÷ [235,000]
16 = [15,000] ÷ [235,000]
17 = 0.0638
18 = 6.38%
19

20 The adjustment to the milestone based on Asarco's increase in production is
21 to increase the milestone by [4,564] 1,467.4 tons of SO₂ (which is ok, since it
22 is less than the maximum of 3,000 tons in Table 5 for Asarco).

23 adjustment = 6.38% x baseline emissions
24 adjustment = 6.38% x 23,000
25 adjustment = [4,564] 1,467.4 tons
26

27
28 **[(e)] A3.5 Compilation of Reports.**
29

30 **(a)** All participating states and tribes shall submit annual emissions reports, ~~which to~~ to the
31 WRAP who will then compile into a draft regional emission report for SO₂. The WRAP will
32 follow additional quality assurance procedures developed by states and tribes to identify
33 possible errors in the emissions data, including screening for missing or added sources,
34 name changes, and significant changes in reported emissions. Any questions or anomalies
35 regarding the Department's report shall be referred back to the [AQCB] Department for
36 resolution prior to the submission of the draft regional emission report.
37

38 **(b)** By December 31 of each year, the WRAP ~~[will]~~ shall submit the draft regional emission
39 and milestone report to the [AQCB] Department and shall post the draft report on the WRAP
40 website for public review. The report shall include the following information ~~[for all states and~~
41 ~~tribes that have an Implementation Plan that has been approved by the EPA Administrator~~
42 ~~under 40 CFR 51.309(h).]~~
43

44 **1.** **Actual** regional sulfur dioxide emissions (tons/year).

45 **2.** Adjustments to account for:

46 **(i)** Changes in flow rate measurement methods (2003-2007 reports only),

47 **(ii)** Changes in emission monitoring or calculation methods, or

48 **(iii)** Enforcement actions or settlement agreements as a result of enforcement
49 actions.

50 **3.** Average adjusted emissions for the last three years (if applicable) for comparison to

1 the regional milestone.

2 4. Regional milestone adjustments to account for ~~[participation by eligible states and~~
3 ~~tribes and the future operation of smelters in Arizona and New Mexico.]~~ the smelter
4 specific set-aside

5
6 ~~[A separate report that includes additional states and tribes that have submitted~~
7 ~~implementation plans that are still under review by the EPA shall also be prepared for~~
8 ~~information purposes.]~~

9
10 **(f) A3.6** The ~~[AQCB] Department~~ shall evaluate the draft regional emissions report and shall
11 propose a draft determination that the SO₂ milestone has either been met in the region, or
12 has been exceeded. In the event that the ~~[TSA] WRAP~~ has not submitted to the ~~[AQCB]~~
13 ~~Department~~ a draft regional emissions and milestone report by the December 31 deadline for
14 any year ~~[, the AQCB and]~~ the Department ~~[will]~~ shall prepare ~~[a]~~ its own report for that year
15 based upon the annual emissions reports submitted by all participating states and tribes
16 pursuant to Section ~~[D(6)(g)]~~ A3.5 for that year. The Department ~~[may]~~ shall modify the data
17 in these annual emissions reports, or use data where such report(s) have not been
18 submitted, based upon direction received from the EPA.

19
20 **~~(g)~~ A3.7 Public Notice:**

21
22 The Department ~~[will]~~ shall publish a notice of availability of the draft report in a newspaper of
23 general circulation. When appropriate, the ~~[Albuquerque-Bernalillo County Air Quality~~
24 ~~Control Board AQCB] Department~~ ~~[will]~~ shall provide for the discussion of the report and
25 accept public comment during a public meeting. The ~~[AQCB] Department~~ shall submit the
26 draft determination to EPA for review and comment.

27
28 **~~(h)~~ A3.8 Comments:**

29
30 The ~~[AQCB] Department~~ shall review any comments received during the comment period
31 and shall submit a copy of all comments to the WRAP and to all participating states and
32 tribes along with any responses to address the comments.

33
34 **~~(i)~~ A3.9 Draft WRAP Regional Emissions Report:**

35
36 The WRAP shall compile the comments and any responses from all participating states and
37 tribes and prepare a draft final regional emissions report. The report shall be submitted to
38 the states and tribes that are participating in the program and, if necessary, the report shall
39 propose a common Program Trigger Date.

40
41 **~~(j)~~ A3.10 Final Regional Emissions Report:**

42
43 The ~~Albuquerque-Bernalillo County Air Quality Control Board AQCB {Stet.} Department~~ shall
44 review and approve the final regional emissions report. The ~~[AQCB] Department~~ shall then
45 submit this report to the EPA along with a final determination that the milestone has either
46 been met in the region, or that the milestone has been exceeded and the WEB Trading
47 Program has been triggered in Bernalillo County. This final determination shall be submitted
48 to the EPA by the end of March, ~~[fifteen]~~ 15 months following the milestone year.

49
50 The first final determination ~~[shall be]~~ was due March 31, 2005 for the 2003 milestone. If the
51 milestone ~~[has]~~ had been exceeded, the common trigger date proposed in the regional report

1 ~~[shall]~~ would have become the Program Trigger Date for purposes of implementing the WEB
2 Trading Program. In the event that the Program Trigger Date must be established by the
3 AQCB in the absence of a regional emissions and milestone report prepared by the ~~[TSA]~~
4 WRAP the date shall be March 31 of the applicable year.

5
6 ~~[(k)]~~ **A3.11** The ~~[Albuquerque-Bernalillo County Air Quality Control Board AQCB]~~
7 Department shall notify the public of the final determination by publishing a notice in a
8 newspaper of general circulation. ~~[The notice shall state the availability of the final Annual~~
9 ~~Emissions report and final determination regarding the milestone, include the final calculation~~
10 ~~of the milestone and state if the WEB Trading Program has been triggered and the date~~
11 ~~when the program became effective. When appropriate, the Albuquerque-Bernalillo County~~
12 ~~Air Quality Control Board (AQCB) will provide for the discussion of the report and accept~~
13 ~~public comment during a public meeting. The notice shall also state the first year that WEB~~
14 ~~sources must be in compliance with the WEB Trading Program provisions outlined in~~
15 ~~Subsection D of 20.11.46.11 NMAC]. This notice shall include the final calculation of the~~
16 ~~milestone and the final annual regional emissions. If the milestone has been exceeded, the~~
17 ~~notice shall include the program trigger date and the first year that WEB sources must be in~~
18 ~~compliance with the WEB Trading Program provisions outlined in Subsection D of 20.11.46~~
19 ~~NMAC. When appropriate, the AQCB will provide for the discussion of the report and accept~~
20 ~~public comment during a public meeting.~~ The ~~[AQCB]~~ Department shall submit the draft
21 determination to EPA for review and comment.

22
23
24 ~~[(7)]~~ **A4 Year 2013 Assessment.**

25
26 ~~[(a)]~~ **A4.1 Initial Assessment in 2013 Periodic SIP ~~[-TIP]~~ Review.**

27
28 **(a)** The ~~[AQCB]~~ Department shall work cooperatively with the WRAP and other participating
29 states and tribes to develop a projected emission inventory for SO₂ through the year 2018,
30 using the 2010 regional inventory as a baseline. This projected inventory shall be included in
31 the 2010 annual emission and milestone report that shall be completed in March 2012 as
32 outlined in Section D(6) of this Implementation plan.

33
34 **(b)** The ~~[AQCB]~~ Department shall evaluate the projected inventory, and based upon this
35 information, make an assessment of the likelihood of meeting the regional milestone for the
36 year 2018. The ~~[AQCB]~~ Department shall include this assessment as part of Bernalillo
37 County's progress report that must be submitted by December 31, 2013, as required by 40
38 CFR 51.309 (d)(10).

39
40 ~~[(b)]~~ **A4.2 Regional Emissions Report for 2012.**

41
42 **(a)** The ~~[AQCB]~~ Department shall prepare an SO₂ emission report for the year 2012 by
43 September 30, 2013 as described in Section ~~[D(6)(a)]~~ A3.1 of this Implementation plan. The
44 ~~[AQCB]~~ Department shall include a list of all known projects in Bernalillo County that are
45 anticipated to affect SO₂ emissions in 2018. This may include permitted projects, projects
46 that are still in the planning stage, or projections from the affected sources of anticipated
47 emissions in 2018. The status of these projects shall be described to provide a better
48 understanding of the degree of certainty that individual projects will be completed by 2018.

49
50 **(b)** The WRAP shall compile the information from all participating states and tribes, prepare
51 draft SO₂ inventory projections for the year 2018, and estimate the effect of known future

1 projects on SO₂ emissions. Projected 2018 emissions will be compared to the 2018
2 milestone. This information shall be included in the draft regional emissions report that shall
3 be submitted to the AQCB by December 31, 2013, as part of the report for the year 2012, as
4 outlined in Section [D(6)-(g)] A3.5 of this Implementation plan.

5
6 **(e) A4.3 Consensus Decision.**

7
8 The [AQCB] Department commits to meet with the participating states and tribes in March
9 2014 to discuss any comments received on the 2018 emission projections in the draft report.
10 The participating states and tribes shall decide, through a consensus process, whether an
11 early trigger of the WEB Trading Program is necessary to meet the SO₂ emission reduction
12 goals in 2018.

13
14 **(d) A4.4 Official Trigger.**

15
16 If the participating states and tribes decide under Section [D(7)(e)] A4.3 that an early trigger
17 of the [WEB] backstop trading program is necessary, the [AQCB] Department shall trigger
18 the WEB Trading Program and the timing of various program elements shall be adjusted as
19 follows to ensure that the WEB Trading Program is in place in 2018. The date of the
20 consensus decision by the participating states and tribes to voluntarily trigger the WEB
21 trading program shall become the Program Trigger Date.

22
23 **(a)** Allowances shall be distributed to WEB sources by January 1, 2015.

24
25 **(b)** The first control period shall be the year 2018. WEB sources will need to
26 demonstrate at the end of the first control period that they have enough allowances to
27 cover their SO₂ emissions of ~~SO₂~~ in 2018.

28
29 **~~(e)~~ A4.5 Public Notification.**

30
31 The [~~Albuquerque-Bernalillo County Air Quality Control Board~~ AQCB] Department shall
32 provide notice to the public of the consensus decision. The notice of availability of the
33 consensus decision to trigger the WEB Trading Program, and the date when the program will
34 become effective, [~~will~~] shall be published in a newspaper of general circulation. If
35 applicable, the notification shall include a statement that the WEB Trading Program is in
36 effect and a notification of the official program trigger date.

37
38
39 **~~(8)~~ A5 Special Penalty Provisions for [Year] the 2018 Milestone.**

40
41 **(a)** If the WEB Trading Program [~~has not been triggered before 2018, and the AQCB~~
42 ~~determines in accordance with Section D(6)(l) of this Implementation plan element that the~~
43 ~~2018 milestone has been exceeded]~~ is triggered, as outlined in Section Part A A.3 of the SO₂
44 Milestones and Backstop Trading Program this Implementation Plan, and the first control
45 period will not occur until after the year 2018, a special penalty shall be assessed for the
46 exceedance of the 2018 milestone.

47
48 [~~The AQCB shall allocate allowances to all WEB sources as established in the 2013 SIP~~
49 ~~revision described in Section J of this Implementation plan element within one year of the~~
50 ~~program trigger date. WEB sources will have the option to buy and sell allowances during a~~

1 ~~two month allowance transfer period as provided in Paragraph (3) of Subsection A of~~
2 ~~20.11.46.20 NMAC.~~

3
4 ~~At the end of this two month allowance transfer period, compliance with the allowance~~
5 ~~limitation shall be determined as provided in Subsection A of 20.11.46.19 NMAC. Penalties~~
6 ~~shall be assessed for SO₂ emissions that are greater than the allowance limitation for each~~
7 ~~WEB source as provided in Subsection C of 20.11.46.19 NMAC. However, notwithstanding~~
8 ~~Subsections A and C of 20.11.46.19 NMAC, SO₂ emissions in the year 2018 for each WEB~~
9 ~~source shall be determined in accordance with the pre-trigger emission tracking~~
10 ~~requirements in Section D(9) of this Implementation plan.]~~

11
12 Details on the penalty provisions for violation of the 2018 milestone can be found in Section
13 20.11.46.20 NMAC. In general, the penalty involves an assessment of a the minimum \$5000
14 per ton of SO₂ emissions in excess of the WEB source's allowance limitation. The source
15 can resolve its excess emissions violation by agreeing to a streamlined settlement approach
16 outlined in Subparagraph (a) of Paragraph (5) of Subsection A of 20.11.46.20 NMAC.

17
18 The amount of the *minimum monetary* penalty in Section 20.11.46.20 NMAC, shall be
19 evaluated at each five-year SIP review, and adjusted to ensure that penalties per ton
20 substantially exceeds the expected cost of allowances to ensure that this remains a stringent
21 penalty.

22
23 The 2018 special penalty provisions shall continue to be applied each year after 2018 until
24 the 2018 [~~milestones have~~] milestone has been achieved.

25
26
27 **[(9)] PART B Pre-Trigger Emission Tracking Requirements.**

28
29 **[(a)] B1 SO₂ Emission Inventory (Per 20.11.46.9 NMAC, Emission Tracking**
30 **Requirements For Sulfur Dioxide Emission Inventories).**

31
32 **(a) Applicability.** [~~The inventory requirements of the WEB Trading Program must~~
33 ~~require all stationary sources with actual emissions of 100 tons per year or more of SO₂ in~~
34 ~~the year 2000, or in any subsequent year, to submit an annual inventory of SO₂~~
35 ~~emissions, beginning with the 2003 emission inventory. A source that meets these~~
36 ~~criteria that then emits less than 100 tons/year in a later year must still submit an SO₂~~
37 ~~inventory for tracking compliance with the regional SO₂ milestones until the WEB Trading~~
38 ~~Program has been fully implemented, and emission tracking is occurring under~~
39 ~~20.11.46.9 NMAC.] Beginning with the 2003 emission inventory, all stationary sources
40 with *actual* emissions of 100 tons per year or more of sulfur dioxide in the year 2000, or
41 in any subsequent year, shall submit an annual inventory of sulfur dioxide emissions. A
42 source that meets these criteria, and then emits less than 100 tons per year in a later
43 year shall submit a sulfur dioxide inventory for tracking compliance with the regional
44 sulfur dioxide milestones until the western backstop sulfur dioxide trading program has
45 been fully implemented and emission tracking has occurred under 20.11.46.16 NMAC.~~

46
47 **(b)** [~~The inventory requirements must include federally enforceable provisions requiring~~
48 ~~WEB sources to:] All sources meeting the criteria immediately above (20.11.46.9
49 NMAC) will be subject to the following federally enforceable provisions:~~

- 1 **(1)** Submit an annual inventory of SO₂ emissions
- 2
- 3 **(2)** Document the emissions monitoring/estimation methodology used, and
- 4 demonstrate that the selected methodology is acceptable under the inventory
- 5 program;
- 6
- 7 **(3)** Include emissions from start up, shut down, and upset conditions in the annual
- 8 total inventory;
- 9
- 10 **(4)** Use 40 CFR Part 75 methodologies for reporting emissions for all sources subject
- 11 to the federal acid rain program;
- 12
- 13 **(5)** Smelters must submit an annual report of sulfur input, in tons/year;
- 14
- 15 **(6)** Maintain all records used in the calculation of the emissions, including but not
- 16 limited to the following:
- 17 **(i)** Amount of fuel consumed;
- 18 **(ii)** Percent sulfur content of fuel and how the content was determined;
- 19 **(iii)** Quantity of product produced;
- 20 **(iv)** Emissions monitoring data;
- 21 **(v)** Operating data; and
- 22 **(vi)** How the emissions are calculated.
- 23
- 24 **(7)** Maintain records of any physical changes to facility operations or equipment, or
- 25 any other changes [~~e.g. raw material or feed~~] that may affect the emissions
- 26 projections;
- 27
- 28 **(8)** Retain records for a minimum of 10 years from the date of establishment, or if the
- 29 record was the basis for an adjustment to the milestone, five years after the date of
- 30 an implementation plan revision, whichever is longer.
- 31

32 **(c)** The Department shall retain 2005 emission inventory records for non-utilities [~~from~~

33 1996 and 1998] until the year 2018 to ensure that changes in emissions monitoring

34 techniques can be tracked.

35

36

37 ~~{E}~~ **B2 Development of Emission Tracking System:**

38

39 ~~(1)~~ The [~~Albuquerque-Bernalillo County Air Quality Control Board (AQCB)~~] Department shall

40 work cooperatively with the states and tribes that are participating in the WEB Trading

41 Program to ensure that an emission tracking system for the regional SO₂ inventory is

42 developed and maintained.

43

44 ~~{2}~~ **B3 Periodic Audit of Pre-Trigger Emission Tracking Database.**

45

46 ~~{a}~~ **Scope of Audit.**

47

48 During the pre-trigger phase when the [~~AQCB~~] Department is tracking compliance with the

49 regional SO₂ milestones, the [~~AQCB~~] Department shall work cooperatively with the

50 participating states and tribes to ensure that an independent audit of the tracking database is

51 conducted to ensure that the WRAP is accurately compiling the regional emissions report.

1 The first audit shall occur during the year 2006 and shall review data collected during the first
2 two years of the program. Subsequent audits shall occur in 2011 (which shall cover
3 emissions years 2005-2009) and 2016 (which shall cover emissions years 2010-2014).

4
5 The primary focus of the audit will be the process that is used to compile the regional
6 inventory from the data provided by each state and tribe, and the tracking of accumulated
7 changes during the period between SIP revisions. The audit shall also review the accuracy
8 and integrity of the regional reports that the ~~[AQCB]~~ Department uses to determine
9 compliance with the milestones.

10
11 The audit is not intended to be a full review of the process for compiling and reporting SO₂
12 emissions, but shall include a broad review of the ~~[AQCB]~~ Department's inventory
13 management and quality assurance systems (i.e. presence and exercise of systems to
14 assure data quality and integrity).

15
16 The audit shall discuss the uncertainty of emissions calculations, and whether this
17 uncertainty is likely to affect the annual determination of whether the milestone is exceeded.
18 The audit shall identify any recommended changes to emissions monitoring or calculation
19 methods or data quality assurance systems. The audit shall also review and recommend
20 any changes to improve the administrative process of collecting the annual emissions data at
21 the state and tribal level, compiling a regional emission inventory, and making the annual
22 determination of whether the WEB Trading Program has been triggered.

23
24 Changes to the WEB trading program, including any changes to the milestones due to the
25 results of these periodic audits, shall be submitted to EPA as a SIP revision as part of the
26 five-year SIP review required by 40 CFR 51.309(d)(10).

27
28 ~~[(b) Public Comment.]~~

29
30 The Department ~~[will]~~ shall publish a notice of availability of the draft audit report in a
31 newspaper of general circulation. When appropriate, the Albuquerque-Bernalillo County Air
32 Quality Control Board (AQCB) ~~{Stet.}~~ Department will provide for the discussion of the report
33 and accept public comment during a public meeting. The AQCB shall submit the final audit
34 report to the EPA regional office.

35
36
37 ~~[(F)]~~ PART C WEB Trading Program Requirements:

38
39 ~~[(4)]~~ C1 Allowance Allocations

40
41 C1.1 Initial Allocation of SO₂ Allowances.

42
43 (a) Draft Allocation Report.

44 ~~[from the Albuquerque-Bernalillo County Air Quality Control Board AQCB]~~ Department to the
45 Tracking System Administrator (TSA): Within six months of the program trigger date, as
46 outlined in ~~[Section D(6)(m)]~~ Paragraph A3.11 of this Implementation plan, the ~~[AQCB]~~
47 Department shall submit a draft allocation report to all participating states and tribes and to
48 the TSA. This report shall contain the following information:

49
50 ~~(b)~~ 1. List of all WEB sources in Bernalillo County as defined in 20.11.46.11 NMAC. The
51 list shall group the sources into two categories:

1
2 **(i) Category 1:** WEB sources that commenced operation prior to January 1, ~~[2003]~~
3 [2008](#). These sources shall receive a floor allocation and shall be eligible for the reducible
4 portion of the allocation.

5
6 **(ii) Category 2:** WEB sources that commenced operation on January 1, ~~[2003]~~ [2008](#) or
7 a later date. These sources shall receive a floor allocation, but shall not be eligible for
8 the reducible allocation. The floor allocation for Category 2 sources shall be deducted
9 from the new source set-aside.

10
11 WEB sources that have received a retired source exemption ~~[Subsection E]~~ under
12 Subsection D of 20.11.46.11 NMAC will be included in the allocation process in the same
13 manner as WEB sources that are currently operating. However, sources that were
14 permanently shut down prior to the program trigger date are not considered WEB
15 sources under Subsection A of 20.11.46.11 NMAC and would therefore not be included
16 in the allocation process.

17
18 **~~[(e)]~~ 2. Floor allocation for all WEB sources in Albuquerque and Bernalillo County.**

- 19
20 ~~▪ [Category 1 Sources: The floor allocation for Category 1 sources is listed in Table 6. If~~
21 ~~any additional Category 1 sources are identified, the AQCB shall calculate a floor~~
22 ~~allocation using the methodology outlined in the Annex and in subsequent reports~~
23 ~~provided by the WRAP.~~

24
25 Table 6: ~~Bernalillo County Floor Allocations for Category 1 Sources~~

26

State ID	County ID	Facility ID	Source Name	Floor Allocation
35	004		Rio Grande Portland Cement	1103
35	004		City Of Albuquerque Waste Water Treatment Plant	120]

27
28 (i) For **non-utility** category 1 WEB sources, the floor allocation shall be as established in
29 the E.H. Pechan Report, “Market Trading Forum Non-Utility Sector Allocation Final
30 Report from the Allocations Working Group” (November 2002) ([see Appendix 2007-B](#)). If
31 any additional category 1 sources are identified, the Department shall calculate a floor
32 allocation using the methodology outlined in the E.H. Pechan Report.

33
34 (ii) For **utility** category 1 WEB sources, the floor will be calculated by first assigning a
35 “clean unit” emission rate to each unit. The clean unit emission rate will then be multiplied
36 by an annual heat input (MMBtu) that represents a realistic upper bound for the unit.

37
38 (Note: The floor level approach described above is designed to address equity
39 issues regarding the allocation process for utilities. [\[State/Tribe\] Department is](#)
40 participating in ongoing discussions with the other participating states, tribes and
41 regional stakeholders to ensure that all equity issues have been addressed.
42 [\[State/Tribe\] Department will work with the other participating states and tribes to](#)
43 ensure that the floor allocation is calculated in a consistent manner for all
44 participants. As outlined further in this allocation methodology, the floor for both
45 utilities and non-utilities is limited by the utility/non-utility split in [Table 3-7C](#). The
46 floor allocation methodology will ensure that credits are available for early

1 reductions and renewable energy allocations. In addition, the regional number of
2 allowances allocated for each year cannot exceed the milestone for that year
3 under any circumstances.)

4
5
6 **Principles**
7

- 8 • Each unit will have enough allowances to operate as a clean source and at an
9 operating rate (capacity factor) that is a realistic upper bound for the unit.
10
11 • There will not be significant winners and losers in this process.
12
13 • The focus is on a fair approach that is applied equally to all sources rather
14 than on state and tribal budgets.
15
16 • The allocation process will use data that reflect current conditions, including
17 current monitoring methodologies.
18

19
20 **Equity Issues**
21

- 22 • Sources that are currently burning very low sulfur coal may see changes in
23 their supply in the future. Historic actual emissions may not reflect future
24 operations.
25
26 • Sources that are currently operating at a low utilization may not reach full
27 capacity in the future. Assumptions about growth that are realistic on the
28 regional level may provide a windfall to some sources, and not provide
29 adequate allowances for other sources.
30
31 • There are some utility units in the region that are not BART-eligible and are
32 operating at a low level of control for SO₂. The relative responsibility of BART-
33 eligible vs. non-BART-eligible is a consideration in the process.
34
35 • Sources that are operating at a high level of control are already bearing the
36 cost of control and this affects their ability to compete in the market.
37
38 • Sources that have no SO₂ controls are facing a large expense that could
39 affect their ability to continue to operate.
40
41 • Emission rate disparities exist throughout the region.
42

43
44
45 (iii) For Category 2 WEB sources the floor allocation shall be the lower of the permitted
46 SO₂ annual emissions for the WEB source, or SO₂ annual emissions calculated based on
47 a level of control equivalent to BACT and assuming 100% utilization of the WEB source.
48

49 **~~(d)~~ 3.** A list of certified early reductions, expressed as tons of SO₂. Early reductions shall
50 be calculated and certified as follows:

1
2 ~~(i) Any WEB source that reduces permitted annual SO₂ emissions to a level that is below~~
3 ~~the floor level established for the source in accordance with Section [F(1)(c)] C1.1(a)(2)~~
4 ~~of this Implementation plan element may apply for an early reduction credit as outlined in~~
5 ~~Subsection E of 20.11.46.14 NMAC. The application must show that the source is~~
6 ~~monitoring SO₂ emissions in accordance with the monitoring requirements in Subsections~~
7 ~~A and C of 20.11.46.16 NMAC prior to the early reduction, and that the floor [allocation]~~
8 ~~was calculated in a manner that is consistent with the monitoring requirements of~~
9 ~~Subsections A and C of 20.11.46.16 NMAC.~~

10
11 (i) Any WEB source that installs control technology and accepts new permit emissions
12 limits that are, for a non-utility source, below its floor as established in this section, or, for
13 a utility source, below BACT, may apply for an early reduction credit as outlined in
14 Section C5 of the Model Rule . The credit will be available for reductions that occur
15 between 2008 and the program trigger year. The application must show that the floor
16 was calculated in a manner that is consistent with the monitoring requirements of Section
17 11(a) of the Model Rule Subsection A of 20.11.46 NMAC and the new permit must contain
18 monitoring requirements that are consistent with Section 11(a) of the Model Rule
19 Subsection A of 20.11.46 NMAC. Emission units that are monitored using the less
20 stringent monitoring requirements of Section 11(b) of the Model Rule Subsection B of
21 20.11.46 NMAC are not eligible for early reduction credits. The credits accumulate from
22 the time the new controls come on line until the program trigger date and will be allocated
23 to the WEB source over a 10 year period. The use of early reduction credits in any
24 control period is limited to no more than five percent, systemwide, of the existing
25 available allowances, as provided in paragraph C1.1(b)(5) of this plan.

26
27
28
29 (ii) The Department shall review the application and shall certify early reductions for each
30 full year between [2003] 2008 and the program trigger year that meet the requirements of
31 Subsection [F] E of 20.11.46.14 NMAC and this Implementation Plan element.

32
33 (iii) [The] A source's' certified early reductions shall be summed for all years to obtain the
34 total certified early reductions for [each] that source.

35
36 ~~[(e)]~~ 4. A list of all renewable energy [resources] plants and sources in Bernalillo County
37 that began operation after [October 1, 2000] January 1, 2008, and the MW of installed
38 nameplate capacity for each of these resources. Renewable energy credits will be
39 granted at a rate of 2.5 tons per MW, and will accumulate from the beginning of the
40 facility's operation. Their use in any control period is limited to no more than five percent,
41 systemwide, of the existing available allowances, as provided in Paragraph C1.1(b)(6) of
42 this plan.

43
44
45 ~~(f)~~ 5. Historical SO₂ emissions data for all Category 1 sources for the purposes of calculating
46 the reducible allocation.

47
48 (i) For utilities, the [average of 1995 through 1999] annual SO₂ emissions [data, as
49 reported to EPA's acid rain database and shown in Table 7a, shall be used.] for the year
50 2006. Another time period may be used for individual emission units, if needed, to be
51 representative of normal operating conditions

1
2 ~~(ii) For non-utilities, the [average of annual SO₂ emissions [reported in] for the [years~~
3 ~~1996 and 1998 shown in Table 7b shall be used. year 2005.~~

4
5 ~~[(iii) For any Category 1 sources that are not listed in Table 7a or Table 7b, the~~
6 ~~Department shall determine a representative historical SO₂ emission average based on~~
7 ~~the most recent two years of operation unless it is determined that another period is more~~
8 ~~appropriate.]~~

9
10 **(g) 6. Changes due to enforcement actions or settlement agreements as a result of**
11 **enforcement actions.** The adjustment shall be determined in accordance with [Section
12 6(c), bullet 3] Paragraph A3.3(c) of this Implementation Plan. The difference between the
13 WEB source's allocations prior to enforcement and after the enforcement action shall be
14 removed from the allocation pool.
15

1
2 **Table 7a: [Utility 1995 through 1999 SO₂ Emissions for the Purposes of Determining**
3 **the Reducible Allocation.] RESERVED**
4

{State/Tribe	Plant Name	ORIS PL	Unit ID	1995 SO ₂ (tons)	1996 SO ₂ (tons)	1997 SO ₂ (tons)	1998 SO ₂ (tons)	1999 SO ₂ (tons)	Average 1995 to 1999	
New Mexico	Escalante		87	1	1456	1488	1586	1114.3	1,515	1432
New Mexico	Raton		2468	4	127	8	127	8	9	0
New Mexico	Raton*		2468	5	43	313	313	313	159	159
New Mexico	San Juan		2451	1	6467	7898	9164	7779.5	5,745	7411
New Mexico	San Juan		2451	2	5733	5872	6140	6471.6	5,023	5848
New Mexico	San Juan		2451	3	12834	12897	14393	11054.7	9,885	12213
New Mexico	San Juan		2451	4	10082	13303	13247	14654.6	8,772	12012

5
6

<u>State/Tribe</u>	<u>Plant Name</u>	<u>ORISPL</u>	<u>Unit ID</u>	<u>1995 SO₂ (tons)</u>	<u>1996 SO₂ (tons)</u>	<u>1997 SO₂ (tons)</u>	<u>1998 SO₂ (tons)</u>	<u>1999 SO₂ (tons)</u>	<u>Average 1995 to 1999</u>
<u>New Mexico</u>	<u>Escalante</u>	<u>87</u>	<u>1</u>	<u>1,456</u>	<u>1,488</u>	<u>1,586</u>	<u>1,114.3</u>	<u>1,515</u>	<u>1,432</u>
<u>New Mexico</u>	<u>Raton</u>	<u>2,468</u>	<u>4</u>	<u>127</u>	<u>8</u>	<u>127</u>	<u>8</u>	<u>9</u>	<u>0</u>
<u>New Mexico</u>	<u>Raton*</u>	<u>2,468</u>	<u>5</u>	<u>43</u>	<u>313</u>	<u>313</u>	<u>313</u>	<u>159</u>	<u>159</u>
<u>New Mexico</u>	<u>San Juan</u>	<u>2,451</u>	<u>1</u>	<u>6,467</u>	<u>7,898</u>	<u>9,164</u>	<u>7,779.5</u>	<u>5,745</u>	<u>7,411</u>
<u>New Mexico</u>	<u>San Juan</u>	<u>2,451</u>	<u>2</u>	<u>5,733</u>	<u>5,872</u>	<u>6,140</u>	<u>6,471.6</u>	<u>5,023</u>	<u>5,848</u>
<u>New Mexico</u>	<u>San Juan</u>	<u>2,451</u>	<u>3</u>	<u>12,834</u>	<u>12,897</u>	<u>14,393</u>	<u>11,054.7</u>	<u>9,885</u>	<u>12,213</u>
<u>New Mexico</u>	<u>San Juan</u>	<u>2,451</u>	<u>4</u>	<u>10,082</u>	<u>13,303</u>	<u>13,247</u>	<u>14,654.6</u>	<u>8,772</u>	<u>12,012</u>

7 *Average emissions marked in yellow blue represent only one year of emissions where the other year
8 was either marked as <100 or as 0.
9

10 Note: There are no such sources within the jurisdiction of Bernalillo County. However, the sources
11 within the State of New Mexico's jurisdiction are presented here for informational purposes.
12

Table 7b. [Non-utility 1996 and 1998 SO₂ Emissions for the Purposes of Determining the Reducible Allocation.]RESERVED

State	State ID	County ID	Facility ID	Facility Name	SO ₂ tpy 1996	SO ₂ tpy 1998	Average 1996 and 1998
[NM] New Mexico	35	015	0024	Agave Energy/Yates Plant	962	962	962
[NM] New Mexico	35	015	0002	ARCO Permian/Empire Abo Gas Plant	565	565	565
[NM] New Mexico	35	025	0004	Maljamar Gas Plant	1,464	3,574	2,519
[NM] New Mexico	35	045	0023	Giant Industries/Bloomfield Ref	772	920	846
[NM] New Mexico	35	031	0008	Giant Refining/Ciniza Refinery	1,115	1,779	1,447
[NM] New Mexico	35	025	0044	Versado Gas Producers LLC	1,933	1,933	1,933
[NM] New Mexico	35	015	0011	Duke Energy/Artesia Gas Plant	1,516	1,516	1,516
[NM] New Mexico	35	015	0006	GPM Gas/Indian Hills Amine Plant	450	450	450
[NM] New Mexico	35	025	0046	GPM Gas/Lee Gas Plant †	0	818	818
[NM] New Mexico	35	025	0035	GPM Gas/Linam Ranch Gas Plant	1,302	1,302	1,302
[NM] New Mexico	35	025	0007	J.L. Davis Gas Process/Denton	890	891	891
[NM] New Mexico	35	015	0008	Marathon Oil/Indian Bsn Gas Plant	852	1460	1,156
[NM] New Mexico	35	015	0010	Navajo Refining/Artesia Refinery	1,552	969	1,261
[NM] New Mexico	35	015	0138	Duke Energy/Burton Flats	196	196	196
[NM] New Mexico	35	015	0285	Duke Energy/Dagger Draw	218	247	233
[NM] New Mexico	35	017	0001	Phelps Dodge/Chino Mines	14,784	15,685	15,235
[NM] New Mexico	35	023	0003	Phelps Dodge/Hidalgo Smelter	32,121	29,188	30,655
[NM] New Mexico	35	025	0008	Sid Richardson Gasoline/JAL#3	540	540	540
[NM] New Mexico	35	025	0055	Texaco/Buckeye Gasoline Plant	2,490	2,933	2,712
[NM] New Mexico	35	025	0052	Texaco/Eunice North Gas Plant	1,076	1,346	1,211
[NM] New Mexico	35	025	0051	Texaco/Eunice South Gas Plant	4,386	3,355	3,870
[NM] New Mexico	35	015		Duke Energy/Huber Gas	231	231	231
[NM] New Mexico	35	041	0001	Warren Petroleum/Bluitt Gas Plant	3,348	582	1,965
[NM] New Mexico	35	025	0060	Eunice Gas Plant	2,388	2,388	2,388
[NM] New Mexico	35	025	0061	Monument Plant	1,709	1,432	1,570
[NM] New Mexico	35	025	0063	Saunders Plant	3,312	1,387	2,349
[NM] New Mexico	35	025	0064	Warren Petroleum/Vada Gas Plant †	2,149	0	2,149
[NM] New Mexico	35	045	0247	Western Gas Processors/San Juan [Rvr] River	980	980	980
[NM] New Mexico	35	001	00008	Rio Grande Portland Cement	1,103	1,103	1,103

†Average emissions marked in [yellow] blue represent only one year of emissions where the other year was either marked as <100 or as 0.

[Note: One such source, the Rio Grande Portland Cement plant, is within the jurisdiction of the AQCB. All the other sources, however, are within the State of New Mexico's jurisdiction and are presented here for informational purposes].

Note: There are no reportable sources within the jurisdiction of Bernalillo County. However, the sources within the State of New Mexico's jurisdiction are presented here for informational purposes.]

[(h)] (b) Compiled Allocation Report [from Tracking System Administrator (TSA)]

The TSA shall compile the information provided by all participating states and tribes into a draft regional allocation report, and shall submit this draft regional report to the department and all participating states and tribes for review and comment 30 days after receiving the

1 preliminary allocation reports. The draft regional allocation report shall include a proposed
2 budget for each state and tribe and the proposed allocation for each WEB source in
3 Bernalillo County [calculated as follows (also see the sample calculation at the end of this
4 section)-]

5
6 ~~1. Calculate the regional milestones for the first five years of the program as described in~~
7 ~~Section [D(6)] A3 of this Implementation plan.~~

8
9 ~~2. Subtract 20,000 tons from the regional milestones for the first five years of the program~~
10 ~~to account for the Tribal Set Aside.~~

11
12 ~~3. Calculate the new source set aside for the first five years of the program as follows:~~

13
14 ~~(i) Subtract the new source set aside adjustment listed in Table 8 for all states and~~
15 ~~tribes that do not have a federally approved Implementation Plan under 40 CFR~~
16 ~~51.309 as of the program trigger date for the WEB trading program from the~~
17 ~~maximum possible set aside for each of the first five years of the trading program.]~~

18
19 The Department will work closely with the other participating states and tribes to
20 ensure that the regional allocation is distributed consistently and fairly and to address
21 any change in status that may affect this process.

22
23 The following methodology distributes the allowances available under the milestone
24 in the following order: tribal set-aside, new source set-aside, floor, early reduction
25 credit, renewable energy credit, reducible allocation. The allocation process is limited
26 by the number of allowances available under the milestone. It is not possible under
27 this methodology to distribute more allowances than are available under the
28 milestone. The Department expects that there will be allowances available for all of
29 the categories listed above. However, if at any time in the process there are not
30 enough allowances available to fully cover a particular category, then the sources
31 eligible for that category will receive a pro-rated allowance, and the process will stop.
32 For example, if the renewable energy allocation is greater than the remaining
33 available allowances under the milestone, then each of the renewable energy
34 sources would receive a reduced renewable energy allocation, and there would be no
35 reducible allocation.

36
37 (1) Table 3 7C shows the calculation of the available allocation for existing
38 sources. The milestone for the four-state region is the starting point.

39
40 NOTE: If the milestone for a particular year is adjusted due to the smelter-specific
41 set-aside provisions in paragraph A1.2 of this Plan, the milestone adjustment
42 calculated in paragraph A1.2 of this Plan will be allocated to that smelter, and will
43 be in addition to the allocations determined from the base milestone as outlined in
44 this subsection. References to the non-utility allocation throughout the remainder
45 of this plan will not include the potential allocation due to the smelter-specific set-
46 aside.

Table 3 7C. Utility/Non-utility Split

	<u>Milestone from Table 1</u>	<u>Tribal Set-Aside</u>	<u>New Source Set-aside</u>	<u>Remaining Allocation</u>	<u>Utility Portion</u>	<u>Non-utility portion</u>
<u>2008</u>	<u>365,489</u>	<u>8,500</u>	<u>15,500</u>	<u>341,489</u>	<u>262,081</u>	<u>79,408</u>
<u>2009</u>	<u>330,342</u>	<u>8,500</u>	<u>15,500</u>	<u>306,342</u>	<u>226,934</u>	<u>79,408</u>
<u>2010</u>	<u>295,195</u>	<u>8,500</u>	<u>15,500</u>	<u>271,195</u>	<u>191,787</u>	<u>79,408</u>
<u>2011</u>	<u>295,195</u>	<u>8,500</u>	<u>15,500</u>	<u>271,195</u>	<u>191,787</u>	<u>79,408</u>
<u>2012</u>	<u>295,195</u>	<u>8,500</u>	<u>15,500</u>	<u>271,195</u>	<u>191,787</u>	<u>79,408</u>
<u>2013</u>	<u>281,585</u>	<u>8,500</u>	<u>31,000</u>	<u>242,085</u>	<u>162,677</u>	<u>79,408</u>
<u>2014</u>	<u>267,975</u>	<u>8,500</u>	<u>31,000</u>	<u>228,475</u>	<u>149,067</u>	<u>79,408</u>
<u>2015</u>	<u>254,365</u>	<u>8,500</u>	<u>31,000</u>	<u>214,865</u>	<u>135,457</u>	<u>79,408</u>
<u>2016</u>	<u>254,365</u>	<u>8,500</u>	<u>31,000</u>	<u>214,865</u>	<u>135,457</u>	<u>79,408</u>
<u>2017</u>	<u>254,365</u>	<u>8,500</u>	<u>31,000</u>	<u>214,865</u>	<u>135,457</u>	<u>79,408</u>
<u>2018</u>	250,196 <u>239,599</u>	<u>8,500</u>	<u>31,000</u>	210,696 <u>200,099</u>	131,288 <u>120,691</u>	<u>79,408</u>

~~[(ii)]~~ (2) Subtract the floor allocation for all WEB sources in the region that were identified as Category 2 ~~[sources in accordance with Sections F(1)(b), bullet 2] Section C1.1(a)(1)(ii)~~ [of this Implementation plan element from the total established in [F(1)(b), bullet 1] ~~Paragraph (i)~~ from the new source set-aside to determine [a total new source] the available allocation for ~~[each of the first] [5] five [years of the program.]~~ new sources that begin operation after the program trigger date

This allocation methodology treats all Category 2 sources as existing sources because these sources will be operating on the program trigger date. However, the allowances for all Category 2 sources are actually drawn from the new source set-aside. If new source growth exceeds the projections used to develop this plan, it is possible that the above calculation will result in a negative number. Therefore, to address this problem, Category 2 sources will be ranked based on the date the permit is issued for each source. Sources will then be removed from the list of Category 2 sources, starting with the most recent permit, until the new source set-aside is no longer depleted. The last source on the list will receive a partial allocation. The sources that were removed from the list will be considered new sources as described in Section C1.3 of this plan. These sources will need to purchase allowances to cover their emissions because the new source set-aside for sources that begin operation after the program trigger date would be calculated as zero until it is replenished in the next 5-year period. The allocation process for these new sources is described in Section C1.3 of this plan.

Table 8: ~~[New Source Set-Aside Adjustment]~~RESERVED

	2003 – 2007	2008 – 2012	2013 – 2018
Maximum Possible Set-Aside	9,000	18,000	27,000

State or Tribe	Adjustment (tons/yr SO ₂)		
1. Arizona	1,757	3,596	5,437
2. California	559	1,039	1,532
3. Colorado	1,480	2,945	4,364
4. Idaho	270	496	721
5. Nevada	302	618	1,011
6. New Mexico	1,267	2,512	3,889
7. Oregon	393	795	1,075
8. Utah	640	1,293	1,949
9. Wyoming	2,333	4,706	7,020
10. Tribes	No-adjustment needed	No-adjustment needed	No-adjustment needed

~~4. Subtract the new source set-aside calculated in [F(1)(h), bullet 3] Paragraph 3 (above) from the subtotal calculated in [F(1)(h), bullet 2] Paragraph 2 (above).]~~

~~(3) The remaining allocation shown in Table ~~3~~ **7C** is available for distribution to category 1 sources. The final two columns in Table ~~3~~ **7C** split this remaining allocation into a utility allocation and a non-utility allocation.~~

~~5. (4) Subtract the floor allocations for all [existing] category 1 utility and non-utility sources in the region from the [subtotal calculated in] [the bullet immediately above this one] Paragraph 4 (above). [This is the new subtotal]. utility allocation or the non-utility allocation.~~

~~In the unlikely event that the total floor allocation for either utility or non-utility sources submitted by the participating states and tribes exceeds the total allocation available for that category, the TSA will notify the participating states and tribes of the discrepancy. The Department commits to work with the participating states and tribes through a consensus process to ensure that the floor allocation has been calculated in a consistent manner for all participants and to ensure that the floor allocation does not exceed the total allocation available for that category. The Department [will] shall ensure that the total number of allowances distributed does not exceed the milestone for any given year.~~

~~6. 5. Calculate the early reduction allocation.~~

~~[by dividing] i. Divide the number of certified early reduction credits for all WEB sources in the region by [ten] 10.~~

~~[(i)] ~~7. Compare the early reduction allocation to the new subtotal calculated in paragraph 5 (above).~~~~

~~(i) If the early reduction allocation is less than the subtotal, subtract it from the subtotal.~~

~~(ii) If the early reduction allocation is more than the subtotal, prorate the early reduction allocation for each WEB source so that the early reduction allocation equals subtotal and then skip Paragraphs [(j) and (k)] ~~8 and 9~~ below because the remaining allocation has been reduced to zero.~~

1 ~~(iii) The early reduction allocation shall be calculated in a similar manner for the second~~
2 ~~five-year allocation period under this program, and shall then be discontinued for any~~
3 ~~future allocation periods.]~~

4
5 (ii) Add the utility allocation for 2018 to the non-utility allocation for 2018 and then
6 multiply this total by 0.05.

7
8 (iii) If the product of paragraph (i) is no more than the product of paragraph (ii), the
9 product of paragraph (i) is the early reduction allocation, and each source is allocated ~~ten~~
10 10 percent of its early reduction credits.

11
12 (iv) If the product of paragraph (i) is more than the product of paragraph (ii), the early
13 reduction allocation for the region is the product of paragraph (ii). To determine a
14 source's allocation, divide the product of paragraph (ii) by 0.10 times the total number of
15 early reduction credits and apply that ratio to the early reduction credits claimed by the
16 source.

17
18 (v) Split the regional early reduction allocation based on the ratio of utility to non-utility
19 allocations in 2018 and subtract the early reduction allocation from the utility and non-
20 utility allocation totals.

21
22 (vi) The early reduction allocation will be calculated in a similar manner for the second
23 five-year allocation period under this program, and will then be discontinued for any
24 future allocation periods.

25
26
27 ~~[(j)]~~ ~~8.~~ **(6) [Determine] Calculate the regional renewable energy allocation.**

28 (i) [by adding] Add together the reported MW of installed nameplate capacity for renewable
29 energy [resources] facilities reported by the participating states and tribes, and then
30 [multiplying] multiply this number by 2.5. [Compare the regional renewable energy allocation
31 to the subtotal calculated in [(i)] Paragraph 7]

32
33 ~~[(i) If the regional renewable energy allocation is less than the subtotal, subtract it from~~
34 ~~the subtotal.~~

35
36 ~~[(ii) If the regional energy allocation is greater than the subtotal, prorate the renewable~~
37 ~~energy allocation for each resource so that the renewable energy allocation equals the~~
38 ~~subtotal, and then skip to Paragraph [(k)] 9 because the remaining allocation has been~~
39 ~~reduced to zero.]~~

40
41 (ii) Add the utility allocation for 2018 to the non-utility allocation for 2018 and then multiply
42 this total by 0.05.

43
44 (iii) If the product of paragraph (i) is no more than the product of paragraph (ii), the product
45 of paragraph (i) is the renewable energy allocation.

46
47 (iv) If the product of paragraph (i) is greater than or equal to the product of paragraph (ii), the
48 renewable energy allocation for the region is the product of paragraph (ii). To determine a
49 source's allocation, divide the product of paragraph (ii) by the total number of renewable
50 energy credits and apply that ratio to the early reduction credits claimed by the source.

1 (v) Split the regional renewable energy allocation based on the ratio of utility to non-utility
2 allocations in 2018 and subtract the renewable energy allocation from the utility and non-
3 utility allocation totals.

4
5
6 ~~[(k)]~~ 9. (7). ~~[The subtotal calculated in Paragraph [(j)] 8]~~ Any remaining allowances in the
7 utility allocation or the non-utility allocation after subtraction of the early reduction allocation
8 and the renewable energy allocation is considered the reducible allocation and shall be
9 assigned to Category 1 sources based on each source's contribution to historical SO₂
10 emissions as follows:

11
12 (i) For non-utility sources, add together the historic SO₂ emissions in accordance with
13 [Section F(1)(f)] Paragraph C1.1(a)(5) of this implementation plan for all Category 1 non-
14 utility sources in the region to determine an historic emission total.

15
16 [(ii)] Determine a percent contribution of SO₂ emissions for each WEB source to the
17 historic emission total ~~[in accordance with [F(1)(f)] C1.1(a)(5).]~~

18
19 [(iii)] Multiply the non-utility reducible allocation ~~[calculated in paragraph [(k)] 9]~~ by the
20 percent contribution for each WEB source to determine a reducible allocation for each
21 WEB source.

22
23 (ii) For utility sources, the reducible allocation will be distributed to sources that emitted
24 above their floor in the baseline period (2006) based on their percentage of total floor
25 emissions for sources emitting above the floor times the number of reducible allowances
26 available for the first five years of the WEB Trading Program. The number of allowances for
27 any source receiving a reducible allocation will not exceed a recent historic emission rate
28 times a heat input that represents a realistic upper bound for the unit.

29
30 [Note: The approach for distributing the reducible utility allocation described above is
31 designed to address equity issues regarding the allocation process for utilities. The
32 Department is participating in ongoing discussions with the other participating states, tribes
33 and regional stakeholders to ensure that all equity issues have been addressed. The
34 principles and equity issues that are under discussion are listed in paragraph C1.1(a)(2)(ii) of
35 this plan.]

36
37
38 ~~[(l)]~~ 10. (8) Add together the floor allocation, early reduction allocation, renewable energy
39 resource allocation, and reducible allocation for each WEB source and each renewable
40 energy resource to determine the proposed allocation for the first five years of the WEB
41 Trading Program.

42
43 ~~(m)~~ 11. (9) Add together the proposed allocation for all of the WEB sources in the
44 jurisdiction of each participating state and tribe to determine a draft SO₂ allowance budget for
45 each state and tribe.

Sample Calculation of the New Source Set-Aside.

The example uses the following assumptions (refer to [table on next page] the table that follows):

- (i) Emissions exceed the milestones based on an average of the years 2003 ~~[2005]~~ 2004-2006.
- (ii) The program trigger date is March 31, ~~[2007]~~ 2008.
- (iii) The first five years of the program are ~~[2011-2015]~~ 2012-2015.
- ~~[(iii) All States and Tribes are participating in the program except for the state of California]~~ (iv) Five states are participating in the program (Arizona, New Mexico, Oregon, Utah, and Wyoming)
- (v) New sources that commenced operation between January 1, ~~[2003]~~ 2008 and the program trigger date have a total floor allocation of ~~[1,400]~~ 600 ~~6000~~ 600.

<u>YEAR</u>	[2011] <u>2012</u>	[2012] <u>2013</u>	[2013] <u>2014</u>	[2014] <u>2015</u>	[2015] <u>2016</u>
[Maximum Possible] <u>New Source Set-Aside</u>	[18,000] <u>15,500</u>	[18,000] 45,500 <u>31,000</u>	[27,000] <u>31,000</u>	[27,000] <u>31,000</u>	[27,000] <u>31,000</u>
[California Adjustment]	-1,039	-1,039	-1,532	-1,532	-1,532
Floor for Category 2 Sources	[-1,400] 6,000 <u>600</u>	[-1,400] 6,000 <u>600</u>	[-1,400] 6,000 <u>600</u>	[-1,400] 6,000 <u>600</u>	[-1,400] 6,000 <u>600</u>
Remaining New Source Set-aside	[15,561] 9,500 <u>14,900</u>	[15,561] 9,500 <u>30,400</u>	[24,068] 2,500 <u>30,400</u>	[24,068] 2,500 <u>30,400</u>	[24,068] 2,500 <u>30,400</u>

~~[(n)]~~ (c) Public ~~[Notification]~~ Comment Period.

The Department ~~[will]~~ shall publish a notice of availability of the draft regional allocation report in a newspaper of general circulation. ~~[When appropriate, the Albuquerque Bernalillo County Air Quality Control Board (AQCB) will provide for the discussion of the report and accept public comment during a public meeting.]~~

A 30-day public comment period shall be established, and a hearing will be held during the comment period. The Department shall consider the comments, and shall revise the draft report if the recommended changes are consistent with the allocation process outlined in this plan. The Department shall prepare a written response that explains why each comment has either been accepted or has been determined to be inconsistent with the allocation process outlined in this plan.

~~[(o)]~~ (d) Proposed Changes Submitted to Tracking System Administrator (TSA).

The Department shall submit a copy of all comments received, the response to those comments and any proposed changes to the budget and source allocations to the TSA within 60 days of receipt of the draft regional allocation report.

~~[(p)]~~ (e) Compilation of Changes.

1
2 The TSA shall compile the comments, responses and proposed changes to the report and
3 shall submit a final draft regional allocation report that is consistent with the allocation
4 methodology outlined in this plan to the ~~[participating states and tribes]~~ Executive Secretary
5 ~~[for approval]~~ within ~~[30 days of receipt of the recommended changes.]~~ 90 days of the receipt
6 of the draft regional allocation report

7
8 **~~(e)~~ (f) Final Regional Allocation Report.**

9
10 The ~~AQCB {Stet} Department~~ shall review the final regional allocation report and shall
11 determine the budget for Bernalillo County and allocations for WEB sources within Bernalillo
12 County in accordance with the ~~[provisions of allocation methodology outlined in~~ this
13 Implementation plan element within 30 days of receipt of the final draft allocation report. The
14 ~~[AQCB] Department~~ shall submit the budget and allocations for all WEB sources in Bernalillo
15 County to EPA, and shall notify the TSA that the WEB source allocations should be recorded
16 in the allowance tracking system.

17
18 **~~[(r)] (g) Notification.~~**

19
20 The ~~[AQCB] Department~~ shall notify all WEB sources within Bernalillo County of the number
21 of allowances that have been recorded in their compliance account. The notice shall include
22 a warning to the WEB sources that reported annual SO₂ emissions may change due to the
23 implementation of new monitoring methodologies as required by 20.11.46.16 NMAC.

24
25 Allocations for the first five years of the program shall not be adjusted to account for changes
26 due to the new monitoring methodology. However, allocations during the next five-year
27 distribution shall be adjusted as needed to account for paper changes in emissions due to
28 changes in monitoring methodology.

29
30 **~~[(2)] C1.2 Distribution of Allowances for Future Control Periods.~~**

31 By December 1 of the year, five years after the initial allocation, the ~~[AQCB] Department~~ shall
32 follow the process outlined in Section ~~[F(1)] C1.1~~ to distribute allowances for the next five-
33 year period. This process shall continue every five years until allowances have been
34 allocated through the year 2018. Under no circumstances shall allocations be made that
35 would exceed the allocations available.

36
37 **~~[(3)] C1.3 Distribution of the New Source Allocation.~~**

38
39 **(a)** The new source set-aside shall be available for two categories of sources.

40
41 **1.** New WEB sources are eligible to receive ~~[allowances from the new source set-aside~~
42 ~~in the amount of] an annual floor allocation equal to the lower of~~ the annual permitted
43 SO₂ emissions for the source, ~~or SO₂ annual emissions calculated based on a level of~~
44 ~~control equivalent to BACT and assuming 100% utilization of the WEB source~~ beginning
45 with the first full calendar year of operation and in accordance with the provisions of
46 Subsection F of 20.11.46.14 NMAC.

47
48 **2.** Existing sources that increase production are eligible to receive allowances from the
49 new source set-aside ~~[for the annual permitted amount of SO₂ emissions that is~~
50 ~~attributable to the increase in production over the permitted production level as of~~
51 January 1,] [2003] 2008 Equal to:

- 1 (i) the permitted annual sulfur dioxide emission limit for a new unit;
2 or
3 (ii) the permitted annual SO₂ emission increase for the WEB source
4 due to the replacement of an existing unit with a new unit or the
5 modification of an existing unit that increased the production capacity of
6 the WEB source.

7
8 Permitted emission increases due to fuel switching or other process changes that
9 are not directly related to increased production capacity are not eligible for
10 allocations from the new source set-aside. The allocation from the new source set-
11 aside in the first year of operation shall be adjusted to account for the number of days
12 that the source is operating in that first year.

13
14 EXAMPLE. A new unit with a nameplate capacity of 400 MW is
15 constructed at a power plant with two existing units with nameplate
16 capacities of 400 MW and 300 MW. The two existing units install SO₂
17 controls and reduce emissions to meet PSD requirements for the
18 construction of the new unit. In this example, the source would continue to
19 receive a floor and a reducible allocation for each of the existing units, and
20 would also be eligible to receive an allocation from the new source set-
21 aside for the new unit. Even though total SO₂ emissions will decrease at
22 this plant due to the construction of the new unit, the allowances allocated
23 to the source will increase to reflect the increase in production capacity of
24 400 MW of electricity. If the new unit comes on line on July 1 the
25 allocation for the first year shall be reduced by 50 percent because the unit
26 was operational for half of the year.

27
28 **(b)** Allocations from the new source set-aside shall remain constant for the applicable WEB
29 source and shall be made on an annual basis by March 31 of each year for the current
30 control period. Under no circumstances shall allocations be made that would exceed the
31 allocations available. When the next five-year allocation block is distributed as outlined in
32 Section ~~[F(2)]~~ C1.2 of this Implementation plan element, all sources with an allocation under
33 the new source set-aside shall receive a five-year allocation block from the new source set-
34 aside, and shall continue to receive this allocation in future five-year allocation blocks.

35
36 **(c)** Owners or operators of new sources or modified sources that meet the eligibility
37 requirements of ~~[F(3)(a)]~~ C1.3(a) may apply for an allocation from the new source set-aside
38 by submitting a written request to the Department as outlined in Subsection F of 20.11.46.14
39 NMAC.

40
41 **(d)** The Department shall review the application for an allocation from the new source set-
42 aside for accuracy and completeness, and shall notify the source, of intent to distribute
43 allocations from the regional new source set-aside pending verification that allowances are
44 available in the new source set-aside account. Under no circumstances shall allocations be
45 made that would exceed the allocations available. The ~~[AQCB]~~ Department shall then
46 forward the request to the Tracking System Administrator (TSA).

47
48 **(e)** The TSA shall document the date that the TSA receives the request. Requests for
49 allocation of allowances from the new source set-aside shall be processed in the order
50 received. Under no circumstances shall the TSA make allocations that would exceed the

1 allocations available. The TSA shall deduct the number of allowances requested from the
2 regional new source set-aside that was established by the participating states and tribes in
3 accordance with Section ~~[F(1)(h)]~~ C1.1(b)3 of this Implementation plan, and shall then
4 record an equal number of allowances in the source's compliance account for each
5 remaining year of the five-year period. The TSA shall then send written notification to the
6 source and to the Department that the allowances have been recorded in the source's
7 compliance account.

8
9 (f) If the new source set-aside is depleted, the source shall ~~[need to]~~ purchase the
10 allowances required to demonstrate compliance. Any eligible WEB source that does not
11 receive an allocation from the new source set-aside because the set-aside was depleted
12 shall be first in line to receive an allocation when the new source set-aside is increased in the
13 next five-year period as outlined in Section ~~[F(1)(h)]~~ C1.1(b)(3) of this Implementation Plan
14 element.

15
16 (g) A source that has received a retired source exemption and continues to receive an
17 allocation as a retired WEB source shall not be eligible to receive an allocation from the new
18 source set-aside.

19
20
21 **~~[(4)]~~ C1.4 Regional Tribal Set-aside.**

22
23 (a) Each year after the program is triggered, for which allowances are allocated, ~~[20,000]~~
24 8,500 allowances will exist as a tribal set-aside.

25
26 (b) The tribal caucus of the WRAP has stated its intent to determine the means for
27 distributing the allowances among the tribes by one year after the program trigger date. The
28 AQCB understands that there will be a process that shall meet the tracking and data security
29 requirements of the allowance tracking system by which a tribe shall move its set-aside
30 allowances into the trading program for the purposes of trading.

31
32 (c) The AQCB recognizes that the tribal set-aside allowances are bonus allowances for the
33 tribes and as such, are separate and additional to any allowances included in a tribal budget
34 or the new source set-aside as outlined in the allocation report in Section ~~F(1)(k), bullet 5~~
35 C1.1(b)(11).

36
37 **~~[(5)]~~ C1.5 Opt-In Sources.**

38
39 The WRAP Market Trading Forum has recommended ~~[including]~~ provisions be included in
40 this Implementation plan element that would allow smaller sources to opt-in to the program.
41 Opt-in sources may provide a more cost-effective way to reduce overall regional SO₂
42 emissions, and therefore may strengthen the market incentives of this program. While the
43 benefits of allowing sources to opt-in to the program are important, the program must also
44 provide safeguards to ensure that the integrity of the program is not affected. For example, it
45 would be counterproductive to allow sources that were already planning to shut down to opt-
46 in to the program and then sell allowances to an existing source. In this example, regional
47 emissions could slowly creep upward in a manner that is not consistent with the goals of the
48 SO₂ milestones.

49
50 The [AQCB] Department is deferring inclusion of provisions for opt-in sources until a future
51 SIP revision to allow time to thoroughly consider how to provide the flexibility and potential

1 benefits to the market by expanding the program while also ensuring that the SO₂ emission
2 reductions goals are maintained.
3
4

5 **(6) WEB Emissions and Allowance Tracking System (WEB [ATS] EATS).**
6

7 ~~[(a) 40 CFR 51 CFR 309(h)(4)(v) requires]~~ The Department ~~[to]~~ shall provide a centralized
8 system for the tracking of allowances and emissions within the framework of the SIP. The
9 centralized system will be referred to as the WEB Emissions and Allowance Tracking System
10 (WEB ~~ATS~~ EATS). The WEB ~~[ATS]~~ EATS must ~~[provide]~~ ensure that all necessary
11 information regarding emissions, allowances, and transactions is publicly available in a
12 secure, centralized database. The ~~[ATS]~~ EATS must ensure that each allowance is uniquely
13 identified, allow for frequent updates, and include enforceable procedures for recording data.
14

15 The ~~[AQCB]~~ Department shall work cooperatively with other states and tribes participating in
16 the WEB Trading Program to designate this system. The ~~[AQCB]~~ Department shall be
17 responsible for ensuring that all the ~~[ATS]~~ EATS provisions are completed as described in
18 this Implementation plan.
19

20 ~~[(b)]~~ The ~~[ATS]~~ EATS will not exist unless the program is triggered. Prior to the
21 implementation of the WEB Trading Program, a separate emissions tracking database will be
22 employed to track the ongoing emissions of sources emitting SO₂ at amounts equal to or
23 greater than 100 tons per year. The emissions tracking database, used to track and
24 measure SO₂ emissions against the milestones, will still exist once the WEB Trading
25 Program is triggered. If the program is triggered, either the emissions tracking database will
26 be incorporated into the SO₂ Emissions and Allowance Tracking System (~~[ATS]~~ EATS), or a
27 similar, parallel one, more suitable for enforcement and program specific purposes will be
28 developed and incorporated into the SO₂ Allowance Tracking System. Both the emissions
29 tracking database and the ~~[ATS]~~ EATS shall be centralized systems with data posted in a
30 format, including an electronic, Web-based program, and available to anyone.
31

32 ~~[(c)]~~ The states and tribes shall contract with a common TSA to service and maintain the
33 WEB ~~[ATS]~~ EATS. It is envisioned that the ~~[ATS]~~ EATS will require the use of a contracted
34 consultant or database design engineer to create a secure, efficient and transparent tracking
35 system. Because the ~~[ATS]~~ EATS shall be utilized by all states and tribes participating in the
36 program, the design will require a uniform approach and level of security that will satisfy
37 regional needs and concerns as well as meet the electronic, Web-based, access needs and
38 security provisions. Due to the dynamic needs of the marketplace, the ~~[ATS]~~ EATS will
39 require a database that will reflect the current status of allowances and allowance
40 transactions. The ~~[ATS]~~ EATS shall be operational within one year after the program trigger
41 date.
42

43 Specifications of the WEB ~~[ATS]~~ EATS such as emissions tracking, the recording of
44 allowance transactions, account management, system integrity and transparency are
45 outlined in a report prepared for the WRAP, entitled *Western Emissions Backstop (WEB)*
46 *Emissions and Allowance Tracking System (EATS) Analysis* (July, 2003). A copy of this
47 report is provided in Appendix K-SIP of this implementation plan. Appendix K-SIP and
48 related sections of 20.11.46 NMAC detail how a WEB source will register for the ~~[ATS]~~ EATS
49 and how the source will, through an account representative, establish accounts, transfer
50 allowances, and track unused allowances from a previous year.
51

1 Neither the AQCB nor the TSA shall adjudicate any dispute concerning the authorization of
2 any Account Representative with regard to any representation, action, inaction, or
3 submission of the Account Representative.
4

5 ~~[(d)]~~ As an example of how the WEB ~~[ATS]~~ EATS will generally function, once the WEB
6 Trading Program is triggered, a WEB source will have its allowance allocation determined.
7 On a parallel track, the WEB source's account representative will register for the ~~[ATS]~~ EATS
8 under 20.11.46.13 NMAC, and a compliance account will be established under 20.11.46.15
9 NMAC. Each allowance will be assigned a serial number. The WEB ~~[ATS]~~ EATS will use
10 the allowance serial number to track allowance allocations, transfers (20.11.46.17 NMAC),
11 deductions, and account for any unused allowances from a previous year (20.11.46.18
12 NMAC). The serial number will also be assigned each allowance recorded in a general
13 account, an account for allowances that are not held to meet program compliance
14 requirements. Furthermore, the ~~[ATS]~~ EATS will track tribal allowance set-asides and new
15 source allowance set-asides not yet assigned to either a compliance or general account.
16

17 It is important to note that while an effort has been made in this Implementation plan element
18 to provide a design for and an operational understanding of the ~~[ATS]~~ EATS, the components
19 of the ~~[ATS]~~ EATS will need to be examined and possibly altered upon each required SIP
20 revision.
21

22 ~~[(7)]~~ C3 Allowance Transfers.

23
24 ~~[(a) 40 CFR 51.309(h)(4)(viii) requires the Implementation Plan to include provisions for~~
25 ~~detailing the process for transferring allowances between parties].~~ Allowance transfers are
26 defined as the conveyance from one account to another account (compliance account or
27 general account) of one or more allowances by whatever means, including but not limited to
28 purchase, trade, or gift in accordance with the procedures established in 20.11.46.17 NMAC.
29 This includes transfer of allowances for the purpose of retirement. Once an allowance is
30 retired, it is no longer available for transfer to or from any account. Any party may purchase
31 allowances for the purpose of retirement.
32

33 The Tracking System Administrator (TSA) shall have specific recording requirements
34 involving transfers. These required procedures will be detailed in the service contract but are
35 outlined here as well.
36

37 ~~[(b)]~~ C3.1 Recording of Allowance Transfers.

38
39 Within five business days of receiving an allowance transfer, except when the transfer does
40 not meet the requirements of this Section, the TSA shall record an allowance transfer by
41 moving each allowance from the transferor account to the transferee account as specified by
42 the request, provided that:
43

- 44 (a) The transfer is correctly submitted; and
- 45 (b) The transferor account includes each allowance identified in the transfer.

46
47 Any allowance transfer that is submitted for recording following the allowance transfer
48 deadline and that includes any allowances allocated for a control period prior to or the same
49 as the control period to which the allowance transfer deadline applies, shall not be recorded
50 until after completion of the compliance account reconciliation.
51

1 Where an allowance transfer submitted for allowance transfer recording fails to meet the
2 requirements of this Section, the TSA shall not record such transfer.

3
4 **~~[(8)]~~ C3.2 Notification of the Recording of Allowance Transfers.**

5
6 The TSA has specific responsibilities involving the notification of the recording of any
7 transferred allowances, including the failure to record any transfer of allowances. Again,
8 these required procedures will be outlined in the service contract, but will include what is
9 outlined here.

10
11 **(a)** Within five business days of the recording of an allowance transfer, the TSA shall notify
12 the Account Representatives of both the transferor and transferee accounts, and make the
13 transfer information publicly available on the Internet.

14
15 **(b)** Within five business days of receipt of an allowance transfer that fails to meet the
16 requirements of 20.11.46.17 NMAC, the TSA shall notify the Account Representatives of
17 both accounts of the decision not to record the transfer, and the reasons for not recording the
18 transfer.

19
20
21 **~~[(9)]~~ C4 Use of Allowances from a Previous Year.**

22
23 **~~[(a)]~~ C4.1 Background**

24
25 ~~[51 CFR 309(h)(4)(ix) allows states to include in the Implementation Plan element provisions~~
26 ~~for the accounting of unused allowances from a previous year. The Implementation plan~~
27 ~~must state that the] Unused allowances may be kept for use in future years in accordance~~
28 ~~with 20.11.46.18 NMAC, [and describe the restrictions on the use of the allowances in~~
29 ~~accordance with that Section.~~

30
31 ~~The federal rule requires that] Allowances kept for use in future years may be used in~~
32 ~~calendar year 2018 only to the extent that this Implementation Plan element guarantees that~~
33 ~~such allowances will not interfere with the achievement of the 2018 milestone [as outlined in~~
34 ~~Table 3: Base Sulfur Dioxide Emissions Milestones]. Subsection D of 20.11.46.18 NMAC~~
35 ~~addresses this requirement by prohibiting the use, after the year 2017, of allowances~~
36 ~~allocated for the years 2003 - 2017. This provision ensures that actual emissions will be less~~
37 ~~than the 2018 milestone because only allowances allocated for the year 2018 could be used~~
38 ~~to show compliance in that year. The provision also maintains flexibility by resetting the~~
39 ~~baseline to the year 2018 and then allowing sources to once again use extra allowances to~~
40 ~~show compliance in any future year. This flexibility is important for sources that have~~
41 ~~variable operations because the source may build up a reserve of unused allowances for use~~
42 ~~in a high production year.~~

43
44 The Annex explains the benefits of allowing the WEB source to tap the previous year's
45 unused allowances, including increased flexibility and early reduction stimulus. The risk in
46 allowing the use of allowances carried from a ~~[previous]~~ previous year could be an increase
47 in emissions in later years as the unused allowances are withdrawn for compliance.

48
49 Because the regional haze SIP is based on reasonable progress requirements related to the
50 remedying or prevention of any future visibility impairment, it is important to assure the use of
51 these allowances will not interfere with attainment or maintenance of any reasonable

1 progress goals. The safeguard employed here to mitigate this type of risk is termed, “flow
2 control.”

3
4 **[(b)] C4.2 Flow Control Provisions.**

5
6 At the end of each control period, WEB sources may transfer allowances in and out of their
7 compliance account for a period of 60 days to ensure that the account will contain enough
8 allowances to cover sulfur dioxide emissions during the previous year. At the end of the 60-
9 day transfer period, allowances shall be deducted from the compliance account of each of
10 the WEB sources in an amount equal to the sulfur dioxide emissions of that source during
11 the control period.

12
13 After the deductions have been completed, the Tracking System Administrator (TSA) shall
14 perform the following calculations and prepare a report according to Section ~~[(H(3)(b))~~
15 C7.1(b):

16
17 (a) Determine the total number of allowances remaining in the allowance tracking system
18 that were allocated for the just completed control period and all previous control periods.

19
20 (b) If the number calculated in (a) above exceeds 10 percent of the milestone for the next
21 control period, then the flow control procedures in Subsection C of 20.11.46.18 NMAC shall
22 be triggered for that next control period. These flow control provisions will discourage the
23 excessive use of allowances that were allocated for an earlier control period without
24 establishing an absolute limit on their use. WEB sources will maintain the option to use
25 allowances allocated for an earlier control period, but will be required to use two allowances
26 for each ton of SO₂ emissions. Flow control operates as follows:

27
28 (1) The flow control ratio shall be calculated by multiplying one tenth multiplied by the
29 milestone for the next control period divided by the total number of unused
30 allowances remaining in the system.

31
32 (2) To calculate the number of prior-year allowances that can be used without
33 restriction by a source for the next control period, the TSA shall multiply them by the
34 flow control ratio. The resulting number of allowances may be used on a one-to-one
35 ratio to show compliance with the source’s ~~emission~~ allowance limitation as outlined
36 in Section 20.11.46.19 NMAC.

37
38 (3) The remaining prior-year allowances may be used on a two-to-one ratio to show
39 compliance. Thus, WEB sources will maintain the option to use allowances allocated
40 for an earlier control period, but will be required to use two of those allowances for
41 each ton of SO₂ emissions.

Example:

On March 1, 2010 (the compliance transfer deadline for the 2009 control period) the TSA deducts allowances from the compliance account for each WEB source to cover 2009 SO₂ emissions from that source. After completing these deductions, the TSA reports the following information:

Total number of allowances still in the system for the years 2003 – 2009	=	[75,000] <u>40,000</u>
2010 milestone [(5-state, no smelter)]	=	[508,223] <u>295,195</u>
Percent of milestone	=	[44.75] <u>13.55</u> %

Because the number of allowances not used in previous control periods is greater than 10% of the milestone, flow control procedures are triggered. In the annual report required in ~~H(3)(b)~~ C7.1(b) the TSA will then calculate the flow control ratio for 2010:

$$\begin{aligned} & \text{[2010 Flow Control Ratio = } 0.1 * 508,223 \div 75,000 = 0.67\text{]} \\ & 0.1 \times 2010 \text{ Milestone} \div \text{prior year allowances} = \text{flow control ratio} \\ & \underline{\underline{0.1 \times 508,223 \div 75,000 = 0.67}} \\ & 0.1 \times 295,195 \div 40,000 = 0.74 \end{aligned}$$

On March 1, 2011 (the compliance transfer deadline for the 2010 control period) the TSA will apply the 2010 flow control ratio before deducting allowances from each WEB source's compliance account [~~continued on the next page~~].

WEB Source A	2010 Allowances	=	1,000
Remaining [2009]	<u>Prior Year Allowances</u>	=	[500] <u>600</u>
	2010 Emissions	=	[1,400] <u>1580</u>

1
2 In this example, the TSA would multiply the [~~2009~~] prior year allowances by [~~0.67~~] 0.74 to
3 determine the number of [~~2009~~] prior year allowances that could be used without restriction
4 at a one-to-one ratio. This would equal [~~335~~] 444. The remaining [~~2009~~] prior year
5 allowances would then be used at a 2:1 ratio. [~~130~~] 272 allowances would be needed to
6 cover the remaining [~~65~~] 136 tons of SO₂ emissions. The TSA would therefore deduct a total
7 of [~~1,465~~] 1716 allowances (1,000 + [~~335~~] 444 + [~~130~~] 272) to cover [~~1,400~~] 1580 tons of SO₂
8 emissions.

[G] C5 Monitoring & Recordkeeping:

~~[(1) Quality Assurance.]~~

C5.1 For WEB sources subject to 40 CFR Part 75, the EPA Administrator shall quality assure and finalize the data for submission to the Tracking System Administrator (TSA). For WEB sources subject to Sections 21 and 22 of 20.11.46 NMAC, the Department shall quality assure and finalize the data in accordance with these provisions for submission to the TSA.

~~[(2) Reporting Timeframe.]~~

C5.2 The EPA Administrator and the [~~Albuquerque-Bernalillo County Air Quality Control Board (AQCB)]~~ Department, as applicable, shall verify and submit data to the emissions tracking database as soon as reasonably feasible after annual emissions are reported by the

1 WEB sources. Note: these timelines will be modified, as necessary, according to the
2 monitoring protocols.

3
4 ~~[(3) Security.] [C5-3~~

5 ~~The emissions tracking database shall be a secure and transparent system, as verified by~~
6 ~~double entry accounting and periodic audits by the states and tribes.]~~

7
8 **C5.3 Special Reserve Compliance Accounts.** The WEB Trading Program requires
9 most WEB sources to install continuous emission monitoring systems (CEMS) that
10 meet the monitoring, recordkeeping and reporting requirements of 40 CFR Part 75.
11 However, there are some emission units that are not physically able to install CEMS
12 and there are also emission units that do not emit enough sulfur dioxide to justify the
13 expense of installing these systems. The WEB Trading Program allows these
14 emission units to continue to use their pre-trigger monitoring methodology, but does
15 not allow the WEB source to sell any allowances that were allocated to that unit for
16 use by another WEB source. The restriction on selling these allowances is needed to
17 ensure that an emission reduction of sulfur dioxide that leads to a sale of allowances
18 is equal to the corresponding increase in sulfur dioxide from the source that buys the
19 allowances. The allowances associated with emission units that continue to use their
20 pre-trigger monitoring methodology are placed in a special reserve compliance
21 account, while allowances for other emission units are placed in a regular compliance
22 account. Allowances may not be traded out of a special reserve compliance account,
23 even for use by emission units with CEMS at the same WEB source. However, the
24 WEB source may use allowances in the compliance account to demonstrate
25 compliance with the WEB source's allowance limitation.

26
27 Section I.1(b) of the model rule allows WEB sources with any of the following
28 emission units to apply to establish a special reserve compliance account:

29
30 (a) any smelting operation where all of the emissions from the operation are
31 not ducted to a stack; or

32
33 (b) any flare, except to the extent such flares are used as a fuel gas
34 combustion device at a petroleum refinery; or

35
36 (c) any other type of unit without add-on sulfur dioxide control equipment, if
37 the unit belongs to one of the following source categories: cement kilns, pulp
38 and paper recovery furnaces, lime kilns, or glass manufacturing.

39
40 The emission units described in (a) and (b) cannot physically be monitored using a
41 CEM. The emission units described in (c) do not typically have add-on controls for
42 sulfur dioxide. These units are expected to operate within their floor-level allocation
43 and therefore will not be affected by the market, unless they make a process change
44 and wish to sell allowances on the market. Other sources that are currently emitting
45 sulfur dioxide above their expected allocation will either need to purchase allowances
46 or install sulfur dioxide controls, and it is therefore important that these emission units

1 have an accurate monitoring methodology that is comparable to other sources in the
2 program.

3
4 The Department shall review the application to monitor under Subsection B of
5 20.11.46.16 NMAC. If the emission units meet the criteria in Subsection B of
6 20.11.46.16 NMAC, the Department shall determine the portion of the WEB source's
7 allocation that is associated with the emission units that will be monitored under
8 Subsection B of 20.11.46.16 NMAC and will require the TSA to record that portion of
9 the WEB source's allocation in the special reserve compliance account. The
10 Department shall use the methodology for determining allocations described in
11 Section C1.1 of this Implementation Plan to determine the portion of the allocation
12 that is associated with emission units monitored under Subsection B of 20.11.46.16
13 NMAC. The Department shall notify the WEB source that the application has either
14 been accepted or rejected, including a notification of the allowances that are to be
15 recorded in the WEB source's regular compliance account and the new special
16 reserve compliance account.

17
18 If an emission unit that is monitored under Subsection B of 20.11.46.16 NMAC is
19 permanently retired, the TSA will transfer the portion of allowances that were
20 associated with that emission unit from the WEB source's special reserve compliance
21 account to the source's compliance account. These allowances will then be available
22 for use or sale by the WEB source. The allowances will be transferred after the
23 compliance deduction has taken place for the last control period that the unit was in
24 operation

25
26 **~~{H}~~ C6 Compliance and Penalties:**

27
28 **~~{4}~~ C6.1 Compliance, Excess Emissions & Penalties.**

29
30 When a WEB source exceeds its allowance limitation as stipulated in Section 20.11.46.19
31 NMAC, the ~~[Albuquerque-Bernalillo County Air Quality Control Board AQCB]~~ Department
32 shall require the Tracking System Administrator (TSA) to deduct allowances from the
33 following year's allocation in an amount equal to ~~[two]~~ three times the WEB source's
34 emissions of SO₂ in excess of its allowance limitation. This deduction shall be made from the
35 WEB source's compliance account after deductions for compliance under 20.11.46.19
36 NMAC. If sufficient allowances do not exist in the compliance account for the next control
37 period to cover this amount, the ~~[AQCB]~~ Department shall require the TSA to deduct the
38 required number of allowances, regardless of the control period for which they were
39 allocated, whenever the allowances are recorded in the account.

40
41 **~~{2}~~ C6.2 Penalties.**

42
43 ~~The amount of the penalty shall be evaluated at each five-year SIP review, and adjusted to~~
44 ~~ensure that penalties per ton substantially exceeds the expected cost of allowances to~~
45 ~~ensure that this remains a stringent penalty. The Annex establishes a penalty of \$5000 per~~
46 ~~ton for each ton of emissions above the source's allowance limitation. In addition, two~~
47 ~~allowances from the next year's allocation will be deducted from the account for each ton of~~
48 ~~exceedance.] Under the [Annex] rule, sources [are] may also be liable for penalties for each~~

1 day of violations of the program's other requirements. ~~[More detail on liabilities for different~~
2 ~~provisions can be found in the provisions of 20.11.46 NMAC Sulfur Dioxide Emissions~~
3 ~~Inventory Requirements; Western Backstop Sulfur Dioxide Trading Program.]~~
4
5

6 ~~[(3)]~~ **C7 Periodic Evaluation of the Trading Program.**
7

8 ~~[(a)]~~ **C7.1 Annual Report.**
9

10 **(a)** One year after compliance with the trading program is required; the ~~[state]~~ Department
11 shall obtain from the TSA an annual report that contains the following information:
12

- 13 **1.** The level of compliance program-wide;
- 14 **2.** A summary of the use and transfer of allowances, both geographically and temporally;
- 15 **3.** A source-by-source accounting of allocations compared to emissions;
- 16 **4.** A report on the use of unused allowances (in order to determine whether these
17 emissions have or have not contributed to emissions in excess of the cap.)
- 18 **5.** The total number of WEB sources participating in the trading program and any
19 changes to eligible sources, such as opt-in or retired sources, or sources that emit more
20 than 100 tons of SO₂ after the program trigger date.

21
22 **(b)** Within 10 months after the allowance transfer deadline for each control period when
23 compliance with the trading program is required, the TSA shall prepare a draft report that
24 lists:
25

- 26 **1.** The total number of allowances deducted for the control period,
- 27 **2.** The total number of allowances remaining in the Allowance Tracking System allocated
28 for that control period and any earlier control period,
- 29 **3.** Proposed determination that flow control procedures have either been triggered or
30 have not been triggered for the next control period, and
- 31 **4.** If flow control procedures have been triggered, a draft flow control ratio ~~[that equals~~
32 ~~0.1 multiplied by the milestone for the next control period divided by the total number of~~
33 ~~unused allowances]~~ calculated according to C4.2 of this Implementation Plan.
34

35 **(c)** The ~~[AQCB]~~ Department shall evaluate the draft report, and shall propose a
36 determination that flow control procedures have been either been triggered or have not been
37 triggered for the next control period.
38

39 **(d)** The Department ~~[will]~~ shall publish a notice of availability of the draft report in a
40 newspaper of general circulation. When appropriate, the ~~[Albuquerque-Bernalillo County Air~~
41 ~~Quality Control Board]~~ AQCB will provide for the discussion of the report and accept public
42 comment during a public meeting.
43

44 **(e)** The ~~[AQCB]~~ Department shall make a final determination that the flow control procedures
45 have either been triggered or have not been triggered for the next control period.
46

47 ~~[(f)]~~ **C7.2 Five-year Evaluation.**

48 **(a)** States and tribes shall conduct an audit of the WEB Trading Program no later than three
49 years following the first full year of the trading program, and at least every five years
50 thereafter. This evaluation does not supplant the Implementation Plan assessments in 2008,

1 2013, and 2018 as required by the regional haze regulations. The evaluation should be
2 conducted by an independent third party and include an analysis of:

3
4 1. Whether the total actual emissions could exceed the values in Table 3 of this
5 Implementation Plan element of the WEB Trading Program even though sources comply
6 with their allowances;

7
8 2. Whether the program achieved the overall emission milestone it was intended to
9 reach;

10
11 3. The effectiveness of the compliance, enforcement and penalty provisions;

12
13 4. A discussion of whether states and tribes have enough resources to implement the
14 WEB Trading Program;

15
16 5. Whether the trading program resulted in any unexpected beneficial effects, or any
17 unintended detrimental effects;

18
19 6. Whether the actions taken to reduce sulfur dioxide have led to any unintended
20 increases in other pollutants;

21
22 7. Whether there are any changes needed in emissions monitoring and reporting
23 protocols, or in the administrative procedures for program administration and tracking;
24 and,

25
26 8. The effectiveness of the provisions for interstate trading, and whether there are any
27 procedural changes needed to make the interstate nature of the program more effective.

28
29 9. The integrity of the emissions and allowance tracking system, including whether the
30 procedures for recording transactions are adequate, whether the procedures are being
31 followed and in a timely manner, whether the information on sources' emissions is
32 accurately recorded, whether the emissions and allowance tracking system has
33 procedures in place to ensure that the transactions are valid, whether back-up systems
34 are in place to account for problems with loss of data.

35
36 ~~[(g)]~~ (b) The public shall have an opportunity to participate in this trading program
37 evaluation.

38
39 ~~[(h)]~~ (c) In the event that any audit results in recommendations for program revisions, the
40 ~~[Albuquerque-Bernalillo County Air Quality Control Board]~~ AQCB, in consultation with the
41 WRAP, will make appropriate modifications to this Implementation plan. The AQCB will
42 revise this Implementation plan if the program is not meeting its emission reduction goals.

43
44 ~~[(i)]~~ (d) The ~~[AQCB]~~ Department shall submit a copy of the report to the EPA regional office.

45
46 ~~[(j)]~~ C8 Retired Source Exemption:

47
48 Subsection ~~[E]~~ D of 20.11.46.11 NMAC outlines the procedure that a WEB source must
49 follow to receive a retired source exemption. The exemption would allow the source to
50 continue to receive an allocation, but would exempt the source from monitoring and record
51 keeping requirements that would serve no useful function for a source that has ceased

1 operations. The ~~[Albuquerque Bernalillo County Air Quality Control Board AQCB]~~
2 Department shall notify the source of its obligation to apply for a retired source exemption
3 upon the cancellation or relinquishment of a permit.
4

5 In order to receive a retired source exemption, the source must submit a request for the
6 exemption to the ~~[AQCB]~~ Department. The ~~[AQCB]~~ Department shall review this request,
7 and within ~~[sixty]~~ 60 days of receipt of the request shall notify the source that the retired
8 source exemption has been granted or has been rejected. If the exemption has been
9 rejected, the notification shall contain an explanation of the reasons for rejecting the request.
10

11 The Tracking System Administrator (TSA) shall record an allocation to a WEB source that
12 has received a retired source exemption. However, the allowances shall be recorded in a
13 general account rather than a compliance account for the source. The TSA will transfer any
14 existing allowances in the retired source's compliance account or special reserve compliance
15 account into the general account for the retired source, and will close the compliance
16 accounts.
17

18 A WEB source that is permanently retired and that does not request a retired source
19 exemption shall forfeit all abandoned allowances in that source's compliance account, as
20 outlined in ~~[Subsection E of 20.11.46.11 NMAC]~~ Section 20.11.46.17 NMAC. The forfeited
21 allowances shall not be redistributed to other sources, and shall be permanently retired from
22 the Allowance Tracking System, as outlined in Subsection E of 20.11.46.11 NMAC. During
23 the next five-year allowance distribution period the retired source shall not receive an
24 allocation, and the allowances that would have been distributed to that source shall ~~in effect~~
25 increase the reducible allocation that is available for other sources in the region ~~be added to~~
26 the new source set-aside
27

28 **C9 Integration into Federally Enforceable Permits**

29
30 ~~40 CFR 51.309 stipulates that the requirements for emissions reporting and for the trading~~
31 ~~program be incorporated into a permit that is enforceable as a practical matter by EPA and~~
32 ~~by citizens to the extent permitted by the Act.~~ It is expected that all WEB sources will at least
33 initially be required to obtain a permit under the Department's Title V delegated permitting
34 program. Under 20.11.42 NMAC, the Department's delegated Title V permitting program,
35 the pre- and post- trigger requirements of the market trading program fall under the definition
36 of "applicable requirements", and will be incorporated into each source's Title V permit.
37 20.11.46 NMAC requires that any source that for any reason and at any time, is not required
38 to have a permit under 20.11.42 NMAC must obtain a New Source Review permit pursuant
39 to 20.11.40 NMAC, 20.11.60 NMAC, or 20.11.61 NMAC, that incorporates the same
40 requirements, and that the source must at all times possess a permit containing the
41 program's requirements. Additionally, in order for a source permitted under Title V to
42 become a synthetic minor source, and thus not need a Title V permit, a source ~~must~~ first
43 ~~must~~ obtain federally enforceable permit limits through a New Source Review permit, and
44 thus there will be no gap between the effective Title V permit and the new NSR permit which
45 contains the same market trading program requirements. Both types of permits are
46 enforceable both federally and by citizens pursuant to this Implementation Plan.
47
48

49 ~~{J}~~ **PART D - 2013 SIP Revision; Backstop for Beginning of Second Planning Period:**

50 ~~{4}~~ **D1 Requirements of 2013 SIP Revision.**

1
2 In addition to the requirements of 40 CFR 51.309(d)(10), the 2013 SIP shall contain:

3
4 ~~[(a)]~~ **1.** Source specific allocations for all WEB sources under the jurisdiction of the
5 Albuquerque - Bernalillo County Air Quality Control Board (AQCB) for the year 2018; and

6
7 ~~[(b)]~~ **2.** Either the provisions of a program designed to achieve reasonable progress for
8 stationary sources of SO₂ beyond 2018 or a commitment to submit a SIP/TIP revision
9 containing the provisions of such a program no later than December 31, 2016. The program
10 will ensure that, the requirements of 40 CFR 51.309 for the first planning period are
11 achieved, including requirements that cannot be measured until after 2018, such as the
12 determination of compliance with the 2018 milestone.

13
14 ~~[(2)]~~ **D2 Adjustments in Allocation Calculations.**

15
16 This 2013 SIP revision will provide certainty to sources regarding their potential liability under
17 the special penalty provisions for the year 2018 outlined in Section A5 of this Implementation
18 plan. The calculation of these allocations is delayed until 2013 to provide certainty about the
19 number of sources that would qualify as WEB sources at that time; the allocations needed for
20 new sources in the region; and the magnitude of renewable energy development and early
21 reductions that would need to be included in the allocation process. It is difficult to estimate
22 the impact of these factors [~~in 2003~~] today because many things [~~may~~] will change during the
23 next 10 years.

24
25 If the 2018 milestone is not met, the starting point for the next planning period shall be the
26 2018 milestones, not actual emissions in 2018.

27
28 ~~[(3)]~~ **Achievement of 13 Percent SO₂ Emission Reduction.**

29
30 Pursuant to 40 CFR 51.309(d)(4)(ii), the [~~AQCB~~] Department has determined that a 13
31 percent reduction in actual stationary source SO₂ emissions [~~has~~] occurred between [~~the~~
32 ~~years~~] 1990 and 2000. Table 9 below provides a state-by-state comparison of these
33 emissions, and shows that there has been a 25 percent reduction from 1990 to 2000 for all
34 states (from 828,775 tons to 621,838 tons). Further information on the emission inventories
35 used for this calculation is described in Appendix K-SIP of this implementation plan.

36
37
38 **Table 9: State-by-State Comparison of SO₂ Emission Reductions, 1990-2000**
39 **(In tons per year)**
40

States	1990	2000
Arizona	185,398	99,133
California	52,832	38,501
Colorado	95,534	99,161
Idaho	24,652	27,763
Nevada	52,775	53,943
New Mexico	177,994	117,344
Oregon	17,705	23,362
Utah	85,567	38,521
Wyoming	136,318	124,110

Totals	828,775	621,838
--------	---------	---------

[K) Assessment of Need for NOx and PM Milestones:

Pursuant to 40 CFR 51.309(d)(4)(v), the AQCB has evaluated the need for NOx and PM emission control strategies, the degree of visibility improvement expected, and whether such milestones are needed to avoid any net increase in these pollutants. The WRAP Market Trading Forum conducted this evaluation for all transport region states and produced the report *Stationary Source NOx and PM Emissions in the WRAP Region: An Initial Assessment of Emissions, Controls and Air Quality Impacts (see Appendix H-O)*. This report identifies the need for control strategies for stationary sources of NOx and PM, the degree of visibility improvement that would result, and whether milestones similar to the SO2 milestones should be adopted.

The WRAP used current air quality modeling capabilities to estimate the visibility impact of across the board increases and decreases in stationary source NOx and PM emissions. The report includes an assessment of current and forthcoming pollution control technologies and practices. It also contains a conceptual model of regional haze in the West and how stationary sources of NOx and PM “fit in”. This model frames the issue more broadly, thereby providing a reference for future analyses that must address NOx and PM BART requirements for the SIP revision due in 2008.

Based on current analysis, several conclusions are presented in the report:

- the vast majority of Class I Areas throughout the WRAP region stationary source NOx and PM emissions are not a major contributor to visibility impairment
- Reasonably Attributable Visibility Impairment (RAVI) remedies are available in cases where particular stationary sources may impact particular Class I Areas
- The need for stationary source NOx and PM milestones is not supported at this time with current state of analyses and knowledge, but the need for milestones should be readdressed based on more complete and accurate analyses prior to submittal of the 2007/2008 SIP revisions, and
- The absolute need for milestones to support potential market-based programs is not yet established.

The complete report is found in Appendix H-O of this Implementation plan.

Based on current information, the AQCB has determined that NOx and PM strategies are not needed. The AQCB will review the need for long term strategies for stationary sources of PM and NOx during the SIP revision updates due in 2008, 2013 and 2018.]

D3 Provisions for Stationary Source NOx and PM.

Pursuant to 40 CFR 51.309(d)(4)(v), the [AQCB Department](#) has included in this SIP, a report which assesses emissions control strategies for stationary source NOx and PM, and the degree of visibility improvement that would result from implementation of the identified strategies. The report, *Stationary Source NOx and PM Emissions in the WRAP Region: An Initial Assessment of Emissions, Controls, and Air Quality Impacts*, was prepared by the

1 WRAP and is included in Appendix H-O. This report represents the initial assessment of
2 stationary source NOx and PM strategies for regional haze, and as such, should be
3 considered a starting point for a more extensive process and analysis aimed at supporting
4 the commitment by the [AQCB Department](#) to a SIP revision by ~~2008~~ 2012. This report
5 concludes the following:

6
7 “Analysis of current and future emissions, ambient monitoring data, and very limited
8 modeling results does not show stationary source NOx and PM emissions to be a
9 major contributor to regional haze (typically about two percent on average) in the vast
10 majority of western Class I areas. These findings may change as emission
11 projections are updated and as ambient monitoring data from new sites is collected
12 and analyzed, and especially as modeling capabilities are improved and as modeled
13 and monitored data become available for the best and worst visibility days instead of
14 seasonal and annual averages. Furthermore, when considering NOx and PM
15 milestones, attention should be given to the reasonable progress goals in the regional
16 haze rule, which generally entail steady and continuing emission reductions and no
17 degradation on the best visibility days. Finally, the remedy embodied in reasonably
18 attributable visibility impairment requirements under the regional haze rule is still
19 available where BART-eligible sources of NOx and PM are found to have direct
20 impact on specific mandatory federal Class I areas. Where stationary source NOx
21 emission reductions are appropriate, substantial reduction may be feasible with
22 commercially-available technologies for about \$300 to \$1,200 per ton.”

23
24 Additional findings from this report are described in Appendix H-O of this implementation
25 plan.

26
27 The [AQCB Department](#) commits to a SIP revision containing any necessary long-term
28 strategies and BART requirements (if applicable), for stationary source NOx and PM
29 (including enforceable limitations, compliance schedules, and other measures) by no later
30 than December 31, ~~2008~~ 2012.

31 32 33 **[VII.] D. MOBILE SOURCES**

34 35 **A) Introduction & Rule Revisions:**

36
37 As published on July 1, 1999, the final Regional Haze Rule (RHR) required states to address
38 the contribution of mobile sources to visibility impairment in the 16 Colorado Plateau Class I
39 Areas, and establish an emissions budget if the mobile source contribution to visibility
40 impairment was found to be significant.

41
42 However, at the request of the Western Regional Air Partnership (WRAP), EPA revised the
43 mobile source provisions in 51.309 and published a final rule on July 3, 2003 (68 FR
44 39842)(see Appendix J-O). This is because, in the interim since the Grand Canyon Visibility
45 Transport Commission (GCVTC) made its recommendations, new developments have
46 caused a major change in the mobile source emissions projections.

47
48 Results of modeling [that] conducted by the WRAP, [conducted, project] predict a significant
49 decline in mobile source emissions throughout the region during the 2003-2018 period
50 covered by the Section 309 plans. [Except for sulfur dioxide (SO₂),] Mobile source emissions
51 for all pollutants except for sulfur dioxide (SO₂), are expected to decline continuously over

1 the course of the first regional haze planning period (2003-2018). The states are no longer
2 ~~[have]~~ required to determine if mobile source emissions are a significant contributor to haze
3 in their states. Instead, states are required to show a continuous decline in emissions ~~form~~
4 from 2003-2018.
5
6

7 ~~[B)]~~ **(a) Actual and Projected Statewide Inventory for Mobile Source Emissions.**
8

9 ~~[Pursuant to requirements in the revised 40 CFR 51.309(d)(5)(i), and with the assistance of~~
10 ~~the WRAP, the AQCB has compiled an of baseline and future year mobile source emissions~~
11 ~~for the years 2003 to 2018. Such statewide inventories must demonstrate a continuous~~
12 ~~decline in mobile source emissions over the 2003-2018 planning period. If mobile source~~
13 ~~emissions do not decline as expected, states will have to revise their SIPs to include any~~
14 ~~additional feasible strategies to control mobile source emissions.~~
15

16 ~~Table 10 on the following page shows that mobile source emissions of SO₂ in New Mexico~~
17 ~~begin to rise after the year 2008 and continue to rise until 2018. Because of this, the AQCB~~
18 ~~shall complete a SIP revision by no later than December 31, 2008 containing any necessary~~
19 ~~long term strategies to achieve a continuous decline in total mobile sources emissions,~~
20 ~~including SO₂, to the extent practicable, considering economic and technological~~
21 ~~reasonableness and Federal preemption of vehicle standards and fuel standards under Title~~
22 ~~II of the Clean Air Act. In addition, the AQCB shall complete a SIP revision by no later than~~
23 ~~December 31, 2008 containing any necessary long term strategies needed to reduce~~
24 ~~emissions of SO₂ from non road mobile sources, consistent with the goal of reasonable~~
25 ~~progress. In assessing the need for such long term strategies, the AQCB may consider~~
26 ~~emissions reductions achieved or anticipated from any new Federal standards for sulfur in~~
27 ~~non road diesel fuel.~~
28

29 ~~It is worth noting that Bernalillo County contains the largest metropolitan area in the State of~~
30 ~~New Mexico and, therefore, a substantial portion of motor vehicle emissions at the statewide~~
31 ~~level are attributable to Bernalillo County.]~~
32

33 Pursuant to requirements in 40 CFR 51.309(d)(5)(i), a statewide inventory of baseline and
34 future year mobile source emissions has been compiled for the years 2003 to 2018, with
35 assistance from the WRAP. Table 10, 10.1, 10.2 & 10.3 below summarize these emissions
36 as well as estimates for the Albuquerque Urban Area, and indicate the year mobile source
37 emissions are projected to be at their lowest level within the state and [within the City of](#)
38 Albuquerque.

Table 10: On-Road and Non-Road Mobile Source Emission Inventories for New Mexico: 1996 Baseline and 2018 (emissions in tons per YEAR)

Year	VOC	NOx	SO ₂	PM 2.5*
1996	194	208	5.7	6.6
2003	137	179	7.6	6.7
2008	95	132	0.8	6.3
2013	70	87	0.9	4.3
2018	59	60	1.0	3.3
Lowest Year	[59]	[60]	[0.8]	[3.3]
	2018	2018	2008	2018

*PM2.5 includes Elemental Carbon (EC) and Organic Carbon (OC).

Table 10.1. On-Road Mobile Source Emission Inventories for Albuquerque Urban Area: 1996 Baseline and 2018 {emissions in tons per DAY} (Environ, 2004, p. 8, Appendix 2007-C)

Year	VOC	NOx	SO ₂	PM 10
<u>1996</u>	<u>68</u>	<u>64</u>	<u>2</u>	<u>2</u>
<u>2003</u>	<u>49</u>	<u>55</u>	<u>2</u>	<u>2</u>
<u>2008</u>	<u>34</u>	<u>41</u>	<u>0</u>	<u>2</u>
<u>2013</u>	<u>24</u>	<u>27</u>	<u>0</u>	<u>2</u>
<u>2018</u>	<u>20</u>	<u>18</u>	<u>0</u>	<u>2</u>
Lowest Year	2018	2018	2018	2018

Table 10.2. Off-Road Mobile Source Emission Inventories for Albuquerque Urban Area: 1996 Baseline and 2018 {emissions in tons per DAY} (Environ, 2004, p. 9, Appendix 2007-C)

Year	VOC	NOx	SO ₂	PM 10
<u>1996</u>	<u>15</u>	<u>20</u>	<u>5</u>	<u>3</u>
<u>2003</u>	<u>11</u>	<u>17</u>	<u>5</u>	<u>2</u>
<u>2008</u>	<u>8</u>	<u>14</u>	<u>6</u>	<u>2</u>
<u>2013</u>	<u>7</u>	<u>13</u>	<u>6</u>	<u>2</u>
<u>2018</u>	<u>7</u>	<u>12</u>	<u>6</u>	<u>2</u>
Lowest Year	2018	2018	2018	2018

Table 10.3. TOTAL On-road and Non-road Mobile Source Emission Inventories for Albuquerque Urban Area: 1996 Baseline and 2018 {emissions in tons per DAY} (Environ, 2004, p. 7, Appendix 2007-C)

Year	VOC	NOx	SO ₂	PM 10
<u>1996</u>	<u>83</u>	<u>84</u>	<u>7</u>	<u>5</u>

<u>2003</u>	<u>60</u>	<u>72</u>	<u>8</u>	<u>5</u>
<u>2008</u>	<u>42</u>	<u>55</u>	<u>6</u>	<u>4</u>
<u>2013</u>	<u>31</u>	<u>40</u>	<u>6</u>	<u>4</u>
<u>2018</u>	<u>27</u>	<u>31</u>	<u>6</u>	<u>4</u>
Lowest Year	2018	2018	2018	2018

(b) Contribution to Visibility Impairment Finding. Pursuant to 40 CFR 51.309(d)(5)(ii), the Department has determined, with assistance from the WRAP, that mobile sources within Bernalillo County do not contribute significantly to visibility impairment within any of the Colorado Plateau 16 Class I areas. This finding of no visibility impairment from mobile sources is described in Chapter 5 of the *Regional Technical Support Document for the Requirements of § 309 of the Regional Haze Rule*, entitled “Assessment of Mobile Sources”, published December 15, 2003 by the WRAP Technical Oversight committee, located in Appendix ~~2007-1~~ 2007-C of this implementation plan.

(c) Interim Implementation Status Reports. Pursuant to 40 CFR 51.309(d)(5)(iv), the Department ~~will~~ shall submit periodic progress reports in 2008, 2013 and 2018 on the status of implementation of adopted regional and local strategies recommended by the Commission Report to address mobile source emissions.

[C] ~~2003~~ 2007 Interim Progress Report:

The 1996 Grand Canyon Visibility Transport Commission (GCVTC) report includes a discussion of recommended regional and local emissions reductions strategies for mobile sources.

The regional strategies are to:

- Establish Clean Fuel Demonstration Zones
- Analyze Pricing and Incentive Approaches
- Explore an Inspection Program for Heavy-Duty Vehicles, and
- Promote Vehicle Maintenance.

The local strategies are to:

- Promote Incentives for Innovative and Effective Approaches
- Encourage Better Integration of Transportation, Land Use and Air Quality Planning
- Establish Mobile Source Emissions Budgets for Selected Major Urban Areas ~~(not required for areas under a Limited Maintenance Plan such as Bernalillo County)~~
- Suggest Retiring High-Emitting Vehicles (see below).

The ~~[Albuquerque-Bernalillo County Air Quality Control Board (AQCB)]~~ Department has implemented ~~[some of these recommendations. For instance,] a Vehicle Inspection & Maintenance Program (“I & M”), [which promotes vehicle maintenance, operates] in Bernalillo County, pursuant to 20.11.100 NMAC. The most recent strategies to reduce emissions that are included in this testing program became effective on May 1, 2004, and include: phase-in of BAR 97 OBDII analyzers certified to meet program specifications with all testing to be done using said analyzers by July 1, 2004; the incorporation of a pressurized gas cap test to reduce hydrocarbon emissions; the reduction of cutpoints (maximum allowable levels of hydrocarbon emissions); diesel vehicles are required to be tested at change of ownership; vehicles defined as “gross polluters” are required to be repaired to reduce emissions below~~

1 that threshold prior to being granted a waiver or time extension; time extension for repair has
2 been limited to one year and one time per vehicle; vehicles in model years with inspection
3 failure rates exceeding 25% (i.e. 1975-1985) are required to be tested annually or at each
4 registration renewal; requirement that vehicles defined as “marginal passes” be issued a
5 certificate valid only for a one-year registration. Testing heavy-duty vehicles and retiring
6 high-emitting vehicles has also been considered. Therefore, progress has been made in that
7 some of the GCVTC mobile source recommendations have been implemented. [~~Some~~
8 ~~recommendations have been considered and others have not as of this time.~~]
9

10 **~~(D) Backstop Provision for Mobile Sources:~~**

11
12 ~~As indicated in Section B above,]~~ The [\[AQCB\] Department](#) will complete a SIP revision to
13 evaluate the need for any long-term strategies that address sulfur dioxide (SO₂) from non-
14 road mobile sources and address increases in SO₂ that occur between 2008 and 2018 by no
15 later than December 31, ~~[2008]~~ [2013](#). In determining whether or not to revise their SIPs to
16 address SO₂ from non-road sources, states may consider emissions reductions achieved or
17 anticipated by Federal standards that address the fuel sulfur content for non-road engines.
18 [~~This assessment is not included in the 2003 SIP submittal presented here.~~] Federal
19 legislation has been promulgated to control SO₂ from non-road sources.
20
21

22 **~~[VIII. FIRE PROGRAMS] E. PROGRAMS RELATED TO FIRE~~**

23 **~~(A) Introduction:~~**

24
25
26 Page 35753 in the Preamble to the Regional Haze Rule (RHR) discusses the requirements
27 for fire sources. The States are required to: 1) document that the smoke management
28 program and any other programs for prescribed fire have a mechanism in place for
29 evaluating and addressing the degree of visibility impairment in the 16 Class I Areas, 2)
30 adopt a statewide process for gathering the essential post-burn activity information to support
31 emissions inventory and tracking systems for the five major pollutant types emitted from all
32 fire sources, 3) adopt a process for identifying feasibly removable administrative barriers to
33 the use of non-burning alternatives, 4) adopt an Enhanced Smoke Management Program
34 (ESMP) for all fire sources in the State, and 5) adopt a process to establish annual emission
35 goals for all fire sources except wildfire.
36

37 Regarding administrative barriers to the use of non-burning alternatives, States may elect to
38 establish a long-term collaborative process with key public and private entities, such as state
39 departments of agriculture and forestry, and farming and forestry associations. One way to
40 establish such a process would be for a state to sign a voluntary letter of agreement between
41 these entities. If administrative barriers are found, the Albuquerque-Bernalillo County Air
42 Quality Control Board (AQCB) will collaborate with the necessary entities to address them.
43

44 **~~B) (a) Definitions [of Fire]:~~**

45
46 Note: The definitions in this section apply only to this Implementation plan and correspond to
47 the regulation 20.11.21 NMAC, Open Burning.
48

49 “Agricultural burning” means the burning of crop residues for field preparation or that is
50 otherwise used for the production of a crop.
51

1 “Alternative to burning” means a treatment employing manual, mechanical, chemical, or
2 biological methods to manage vegetation and/or fuel loads, or land management practices
3 that treat vegetation (fuel) without using fire. A treatment or practice may only be considered
4 an alternative if it has successfully been used to take the place of fire for at least three
5 consecutive years. Suggested alternatives to burning are listed in Section 20.11.21.18
6 NMAC

7
8 “Environmentally non-essential burning” means the open burning of any unwanted
9 combustible material which could otherwise reasonably be altered, destroyed, reduced or
10 removed to a suitable disposal site without the potential to cause environmental harm or
11 damage.

12
13 “Environmentally poor burning substances” include but are not limited to: refuse, paper,
14 rubbish, books, magazines, fiberboard, packaging, rags, fabrics, animal waste, waste oil,
15 liquid or gelatinous hydrocarbons, tar, paints and solvents, chemically treated wood, plastic
16 or rubber, office records, sensitive or classified wastes, hazardous or toxic substances,
17 interiors of wrecked vehicle bodies or other materials which are difficult to burn without
18 producing significant amounts of noxious and/or toxic fumes or dense smoke.

19
20 “Fire” means [40 CFR 51.309(b)(4) of the RHR defines fire as] “wildfire, wildland fire
21 (including prescribed natural fire), prescribed fire, and agricultural burning conducted and
22 occurring on Federal, State, and private wildlands and farmlands” [40 CFR 51.309(b)(4)].
23 Prescribed natural fire has been functionally replaced by wildland fire managed for resource
24 benefit or “Wildland Fire Use” (WFU) under the National Fire Plan. Except where “prescribed
25 fire” is noted, the term “fire” shall apply to the sources identified herein.

26
27 “No-burn period” means a period of time, declared by the Director, during which no person
28 with authority or power to control the operation of a solid fuel heating device shall allow the
29 operation of a solid fuel heating device to continue, following a burn down period, within the
30 wood smoke impacted area, unless the device is a wood heater that has been emission
31 certified by the EPA. Exemptions may be granted by the Director per 20.11.22.2 NMAC.
32 No-burn periods may be declared any time from October 1 through February 28. The
33 Director shall declare a no-burn period after reviewing available meteorological data, air
34 pollution monitoring data, and other relevant information and determining that expected
35 atmospheric conditions will not adequately disperse wood smoke.

36
37 “Open burning” means the combustion of any substance which is not confined in a device
38 having controllable fuel/air mixture capable of achieving nearly complete combustion, and
39 from which combustion products are discharged into the open air without passing through a
40 stack, duct, chimney, or vent.

41
42 “PB-I” or “level I prescribed burn” means a smoke management burn project that emits
43 less than one ton of PM₁₀ emissions per day or burns less than 5,000 cubic feet pile volume
44 of vegetative material per day.

45
46 “PB-II” or “level II prescribed burn” means a smoke management burn project that emits
47 one ton or more of PM₁₀ emissions per day or burns 5,000 cubic feet or more pile volume of
48 vegetative material per day.

1 "Prescribed fire" or "prescribed burn" or "PB" means any fire ignited by any person to
2 meet specific land management objectives. For the purposes of 20.11.21 NMAC, wildland
3 fire use is considered a prescribed fire.

4
5 "Ventilation index" means a technical rating used to establish the potential for smoke or
6 other pollutants to ventilate away from its source.

7
8 "Ventilation index category" means a category in the ventilation index that is determined
9 as provided in Section 20.11.21.17 NMAC and is rated as excellent, very good, good, fair, or
10 poor.

11
12 "Wildfire" means an unplanned and/or unwanted fire that burns vegetative material in a
13 natural or modified state.

14
15 "Wildland" means an area in which there is minimal development, except for roads,
16 railroads, power lines, and similar utilities and transportation facilities. Structures, if any, are
17 widely scattered.

18
19 "Wildland fire use" means the management of wildfire within a wildland that is ignited by
20 natural forces, such as by lightning or volcanic eruption, following a decision to allow the
21 wildfire to burn to accomplish specific pre-stated resource objectives in predefined
22 geographic areas, also known as fire use, wildfire use, prescribed natural fire, and fire for
23 resource benefit.

24
25 "Winter pollution advisory season" or "no-burn season" means the period from October
26 1st through February 28th each year when no-burn calls are made. The no-burn call is a
27 control strategy designed to protect the air quality in Bernalillo County. This strategy helps
28 mitigate particulate matter and carbon monoxide build up during the colder months of the
29 year when temperature inversions trap pollutants closer to ground level.

30
31 "Wood smoke impacted area" means that portion of Bernalillo County that is the most
32 adversely affected by the burning of wood during atmospheric conditions that the Director
33 concludes may not adequately disperse wood smoke. The wood smoke impacted area is
34 bounded on the north and south by the Bernalillo county line, on the west by the universal
35 transverse meridian (UTM) line 337000mE and on the east by the UTM line 367000mE,
36 Zone 13.

37
38 **[C] (b) Prescribed Fire Program Evaluation:**

39
40 Pursuant to 40 CFR 51.309(d)(6)(i), the [AOCB] Department has evaluated its smoke
41 management program and all Federal, State, and private prescribed fire smoke management
42 programs in Bernalillo County based on the potential to contribute to visibility impairment in
43 the 16 Class I Areas of the Colorado Plateau, and how visibility protection from smoke is
44 addressed in planning and operation.

45
46 The [AOCB] Department has also evaluated whether its smoke management program and
47 these prescribed fire smoke management programs contain the following elements: actions
48 to minimize emissions; evaluation of smoke dispersion; alternatives to fire; public notification;
49 air quality monitoring; surveillance and enforcement; and program evaluation. [Table] Tables
50 [11 and 12](#) [describes] describe the results of these evaluations in detail.

1
2
3

~~[Table 11 on the following page lists the prescribed fire programs that impact Bernalillo County:]~~

1 **Table 11: Prescribed Fire Programs that Impact Bernalillo County**

2

Types of Prescribed Fire Programs			
<i>Federal</i>	<i>State</i>	<i>Local (Bernalillo County)</i>	<i>Private</i>
U.S. Forest Service- Cibola National Forest	State of New Mexico Open Burning Rule, 20.2.60 NMAC & [Proposed] Smoke Mgmt. Rule, 20.2.65 NMAC	Albuquerque-Bernalillo County <u>Open Burning</u> Regulation, 20.11.21 NMAC	None known at this time.

3
4 The [currently effective ~~Open Burning~~] regulation, Open Burning, 20.11.21 NMAC, is the
5 foundation of the Open Burning Program, which the Department administers and enforces.
6 Per 20.11.21.12 NMAC, unless otherwise exempted, open burning by any person is
7 prohibited in Bernalillo County. The goal of this regulation is to eliminate environmentally
8 non-essential burning.

9
10 20.11.21.13 NMAC conditionally allows open burning for certain activities with a permit [~~(see~~
11 Appendix C-NT.)] Permits are issued for either a single event or multiple events. Most of the
12 multiple event open burning permits are for detonations for research and development
13 purposes. For timber and forest management, a single event open burning permit is required
14 for burns of ¼ acre or more. In recent years, the U.S. Forest Service has obtained a
15 multiple-event open burning permit for the Cibola National Forest. For each burn, the
16 permittee must specify where the burn will occur and provide a 48-hour notice to the
17 Department. The permittee must also [~~be sure~~] verify that a No-Burn Alert has not been
18 called by the Department, prior to engaging in any burning activities.

1
2
3
4
5

Table 12: Comparison of ~~[Existing & Amended]~~ the AQCB ~~Open Burning~~ Regulation, *Open Burning*, 20.11.21 NMAC, before and after incorporating the ~~[with]~~ Regional Haze Rule (RHR) Requirements

RHR Requirement / ESMP Recommendation	[Current] <u>Previous</u> <i>Open Burning</i> Regulation, 20.11.21 NMAC, <u>(Before 2003 Regional Haze amendments)</u>	Amended <i>Open Burning</i> Regulation (Effective 12/31/03)
Actions to minimize emissions	Restrictions on what can be burned and when	For burns over 1 ton PM-10 emissions per day, requires use of at least one ERT*
Evaluation of smoke dispersion	None.	“ PBII ”: For burns [over] <u>exceeding</u> 1 ton PM ₁₀ emissions per day, requires visual monitoring; The Department may decide to conduct instrument monitoring. Burns can only be conducted if ventilation category is "Good" or better. “ PBI ”: For burns less than 1-ton PM ₁₀ emissions per day, requires 300-foot setback from occupied structure or place where people congregate and burn only during certain hours; or burner may choose to follow visual monitoring and ventilation category requirements under ‘PBII’.
Alternatives to fire	Permit requires burner to state: “What alternatives to burning have been considered and why they were not chosen instead of burning” {20.11.21.13.B(3)(d) NMAC}.	For burns [over] <u>exceeding</u> 1 ton PM ₁₀ emissions per day, requires documentation of alternatives analysis.
Public notification	None	“PBI” & “PBII”. Requires notification of Bernalillo County Fire Department along with local fire authority; as well as public notification.
Air quality monitoring	None	“PBII”. For burns [over] <u>exceeding</u> 1 ton PM ₁₀ emissions per day, requires visual monitoring; The Department may decide to conduct instrument monitoring on burns close to populations.
Surveillance and enforcement	Regulatory requirements, if not met, are subject to enforcement	All prescribed burning is subject to inspection. The Department may revoke permits and take any other enforcement action authorized under state or federal statutes, rules and regulations

RHR Requirement / ESMP Recommendation	[Current] <u>Previous</u> <i>Open Burning</i> Regulation, 20.11.21 NMAC, <u>(Before 2003 Regional Haze amendments)</u>	Amended <i>Open Burning</i> Regulation (Effective 12/31/03)
Program evaluation	None	Annual program evaluation and meeting with burners and other stakeholders.
Regional coordination	None	The Department will use notifications to predict air shed capacity; The Department will work with the WRAP and the State of New Mexico on inter-jurisdictional coordination.
Tracking/emission inventory	Filed permits	All burners are required to submit tracking forms; The Department will use this information to calculate emissions.
Burn authorization	Permits issued by the Department to federal or state burners.	"Permit-by-rule" – burners are required to register in advance of burns, submit notification one day in advance for burns greater than 1-ton PM ₁₀ emission per day; The Department determines air shed capacity and may require burners to modify or postpone burns.

1
2
3 The AQCB ~~[is making]~~ made changes to elements of the smoke management program (as
4 listed above) to bring the ~~[current]~~ previous *Open Burning* regulation, 20.11.21 NMAC, into
5 alignment with the Regional Haze Rule. These changes are reflected as amendments to the
6 *Open Burning* regulation. These ~~[changes]~~ amendments were adopted by the ~~[Albuquerque-~~
7 ~~Bernalillo County Air Quality Control Board]~~ AQCB on ~~[insert date]~~ 11/12/03 and ~~[will~~
8 ~~become]~~ became effective within Bernalillo County ~~[no later than January 1, 2004]~~ on
9 12/31/03.

10
11 ~~[(D)]~~ **(c) Emissions Inventory and Tracking System.**

12
13 ~~[(1) General Information.]~~

14
15 Pursuant to 40 CFR 51.309(d)(6)(ii), a system has been established ~~[which will allow for]~~ to
16 develop a tracking system and an emissions inventory for the following pollutants: VOC,
17 NOx, elemental carbon (EC), organic carbon (OC) and PM2.5 (fine particulate) for fire
18 sources within Bernalillo County. The Department will implement an emissions tracking
19 system that follows the WRAP ~~[policy report *Fire Tracking Systems*]~~ Fire Tracking System
20 Policy (see Appendix K-O), which identifies a process for gathering the essential post-burn
21 activity information necessary to consistently calculate emissions and uniformly assess fire
22 impact on regional haze on an annual basis. The fire tracking system described in this policy
23 consists of seven components: (1) date of burn, (2) burn location, (3) area of burn, (4) fuel
24 type, (5) pre-burn fuel loading, (6) type of burn, and (7) "anthropogenic" or "natural"
25 classification ~~[of]~~ or information to support this classification. This policy serves as the basis
26 for creating a fire emissions inventory within Bernalillo County.
27

1 Appendix K-SIP of this implementation plan contains information on the emissions inventory
2 and tracking system that the WRAP developed for fire emissions. Note that existing
3 emissions inventories prepared by the Fire Emissions Joint Forum (FEJF) satisfy the
4 requirement for a statewide inventory and emissions tracking system for VOC, NOx,
5 elemental carbon (EC), organic carbon (OC) and PM 2.5.

6
7 **~~[(2) Specific Information.]~~**

8
9 All sources of fire in Bernalillo County are required to submit tracking information following
10 completion of burns. Burners are required to submit information on acreage or pile-volume
11 of burns and emission reduction techniques utilized. This tracking information will be used to
12 develop an emissions inventory for emissions from all sources of fire in Bernalillo County.
13 Emission factors will be applied to each burn to develop emissions estimates. The New
14 Mexico Environment Department (NMED) is expected to follow this same procedure. See
15 Appendix L-O for guidance on how to calculate emissions using emission factors and how to
16 estimate fuel loading.

17
18 ~~[The Department will collect the WRAP identified post burn activity information and utilize the~~
19 ~~WRAP's regional emission and tracking initiative. In addition, fire emission inventory updates~~
20 ~~will be provided in future progress reports as part of the periodic implementation plan~~
21 ~~revisions pursuant to 40 CFR 51.309(d)(10).~~

22
23 **~~[(3) Tracking & Inventory Process.]~~**

24
25 The following ~~[provides the basic process that]~~ processes will be used by the AQCB and the
26 Department for tracking emissions from fire sources:

27
28 **~~[(a)]~~**

- 29 ➤ For "PBI" and "PBII" prescribed burns, including those involving timber or agricultural
30 lands, the Burner will notify the Department of its plan to conduct a burn prior to
31 initiating the burn. Initial estimates are made by the Burner on the quantity of material
32 or acres to be burned.

33
34 **~~[(b)]~~**

- 35 ➤ 20.11.21.15 NMAC requires the Burner to submit to the Department quantitative
36 information regarding the fuel types, fuel consumption, and type of burn once the
37 prescribed burn has been completed.

38
39 **~~[(c)]~~**

- 40 ➤ The Department ~~[will]~~ shall use the quantitative information submitted by the Burner
41 to calculate the emissions estimates for VOCs, NOX, EC, OC, and PM 2.5 for each
42 regulated burn. Each year the Department will complete an emissions inventory for
43 these pollutants and submit a report to the AQCB, the State of New Mexico
44 Environment Department, and any participating tribes in New Mexico. The AQCB
45 may solicit public comment regarding the annual report. The report will discuss the
46 overall level of fire emissions in Bernalillo County and compare these results to the
47 annual emissions goals for Bernalillo County. In addition, the Department will submit
48 emissions inventory reports to the WRAP upon completion.

49
50 **~~[(d)]~~**

- 1 ➤ The Department ~~[will]~~ shall maintain all records pertaining to prescribed burns
2 regulated pursuant to 20.11.21 NMAC. In addition, the Department ~~[will]~~ shall archive
3 all emission inventory reports. All prescribed burn records and the completed annual
4 emissions inventory reports will be made available to the public, upon request. It is
5 also expected that the WRAP summaries of fire emissions for the Western states will
6 be available to the public on the WRAP website.

7
8 ~~[(e)]~~

- 9 ➤ The Department ~~[will]~~ shall work collaboratively with the New Mexico Environment
10 Department and participating tribes to compile statewide emission inventories and
11 track the emissions in a temporal and spatial manner. Statewide inventories and
12 tracking information will be made available to the public upon request.

13
14 ~~[(E)]~~ **(d) Strategy for Use of Non-Burning Alternatives.**

15
16 ~~[(1)]~~ **Process for Removal of Administrative Barriers.**

17
18 ~~The Albuquerque-Bernalillo County Air Quality Control Board (AQCB)]~~ The Department ~~[will]~~
19 shall develop a process ~~[in which]~~ to coordinate with key public and private entities, (such as
20 the state departments of agriculture and forestry, farming and forestry associations), ~~are~~
21 ~~coordinated with~~ to identify and remove administrative barriers to the use of non-burning
22 alternatives to prescribed fire on federal, state, and private lands in a manner consistent with
23 40 CFR 51.309(d)(6)(iii). ~~[It is anticipated that administrative barriers will be identified on a~~
24 ~~case-by-case basis.]~~ The process will be collaborative and provide for continuing
25 identification and removal of administrative barriers, and will consider economic, safety,
26 technical and environmental feasibility criteria and land management objectives. In
27 developing this process, the Department will rely on two documents: (1) *Non-burning*
28 *Alternatives for Vegetation and Fuel Management*, and (2) *Burning Management Alternatives*
29 *on Agricultural Lands in the Western United States*, prepared by the WRAP, that describe a
30 variety of non-burning alternatives and methods of assessing their potential applicability ([see](#)
31 [Appendix 2007-E](#)). The WRAP Fire Emissions Forum recommends that these documents be
32 used as reference guides in state and land manager decision-making processes for
33 evaluating non-burning alternatives. The Forum also recommends that states identify in their
34 309 SIPs the administrative barriers they know to exist in their state, and the steps or
35 process they will follow to remove them where it is feasible to do so.

36
37 ~~[(a)]~~ **Identification of existing administrative barriers.**

38
39 ~~The Department will review current air quality regulations for Bernalillo County to identify~~
40 ~~administrative barriers that prevent utilization of a non-burning alternatives. This review will~~
41 ~~be performed by December 2004 and annually thereafter as part of the work to prepare the~~
42 ~~annual emissions inventories report.]~~

43
44 During the development of the required smoke management revisions to the ~~Open-Burning~~
45 regulation, *Open Burning*, 20.11.21 NMAC, the Department identified administrative barriers
46 to the use of a Non-Burning alternative, namely the use of air curtain incinerators (ACI).
47 Subsection B ~~of Section~~ 20.11.68.200 NMAC ~~of~~ the AQCB regulation *Incinerators and*
48 *Crematories*, ~~is entitled~~, *Construction/Operation*, ~~and~~ states that: "The construction, use or
49 operation of an incinerator, even if an 'affected facility' pursuant to 40 CFR 60, Subpart Ea as
50 amended, on any property is prohibited, except for certain crematories as allowed by this
51 part". In addition, it is possible that 20.11.41 NMAC, *Authority to Construct*, may become an

1 impediment to the use of air curtain incinerators if a permit is required. ~~[Because these~~
2 ~~regulations are considered potential administrative barriers to the use of ACIs, the~~
3 ~~Department will make a recommendation to the AQCB by December 2004 regarding whether~~
4 ~~regulatory amendments are needed to remove these barriers.]~~ There have not been any
5 requests for a variance from the requirements of 20.11.68 NMAC submitted to the
6 Department by burners in order to operate an ACI. Therefore no amendments have been
7 proposed. If in the future, the Department receives a request for a variance to allow the
8 operation of an ACI, then, the AQCB may direct the Department to take actions necessary to
9 propose revisions to the regulation(s) and hold the necessary public hearings to modify the
10 regulation(s) in order to remove the barriers.

11
12 ~~[(b) An ongoing method]~~ The Department's ongoing efforts to identify administrative barriers
13 ~~[will shall]~~ involve include the periodic review of registration forms and permits submitted by
14 burners. In the registration form required for burns conducted under Prescribed Burn II
15 (PBII), or under a permit, burners are required to identify why alternatives to burning have not
16 been used. The Department ~~[will shall]~~ collect this data and analyze it to determine whether
17 administrative barriers to the use of alternatives exist. Should it determine that a specific
18 administrative barrier exists, the Department ~~[will shall]~~ meet with the appropriate agency(ies)
19 to discuss how any barriers might be removed and will work collaboratively with the
20 agency(ies) and the burners to remove the barrier.

21 22 **~~[(F)] (e) Enhanced Smoke Management Program (ESMP).~~**

23 24 **~~[(1) Current Smoke Management Efforts.]~~**

25
26 Pursuant to CFR 51.309(d)(6)(iv), all smoke management programs that operate within
27 Bernalillo County shall be consistent with the ~~[WRAP policy report]~~ WRAP's Enhanced
28 Smoke Management Programs~~[(ESMP)]~~ for Visibility Policy (see Appendix M-O). This ~~report~~
29 policy calls for programs to be based on the criteria of efficiency, economics, law, emission
30 reduction opportunities, land management objectives and reduction of visibility impacts. The
31 WRAP policy report lists the previously identified elements under 40 CFR 51.309(d)(6)(i) as
32 well as adding "burn authorization" and "regional coordination" elements to ensure visibility
33 protection and meet the designation of "enhanced".

34
35 Table 12 contains a more detailed assessment of specific elements of the AQCB's current
36 smoke management ~~[efforts]~~ program which are embodied in the ~~[existing]~~ previous
37 (September 2003) *Open Burning* regulation and compares this ~~[existing]~~ previous
38 regulation to the ~~[proposed]~~ amended regulation. Table 12 demonstrates that the ~~[proposed]~~
39 amended regulation meets the Enhanced Smoke Management Program (ESMP) policy and the
40 Regional Haze Rule (RHR) requirements. The amended regulation ~~[will be acted upon]~~ was
41 adopted by the AQCB ~~[before December 31, 2003]~~ on 11/12/03, and, ~~[if adopted, will~~
42 become] became effective ~~[no later than January 1, 2004]~~ on 12/31/03.

43 44 **~~[(2) The Open Burning Regulation.]~~**

45
46 The amended *Open Burning* regulation, 20.11.21 NMAC, ~~[to be]~~ which became effective ~~[no~~
47 ~~later than January 1, 2004]~~ on December 31, 2003 specifically addresses sources of fire over
48 10 acres in size or greater than 1,000 cubic feet in pile-volume. The amended *Open Burning*
49 regulation requires the use of at least one emission reduction technique for all burns with
50 emissions of PM₁₀ greater than one ton per day. These burns must also only be conducted
51 during] under dispersion conditions rated 'good' or better. All burners with burns greater

1 than 10 acres per day or 1000 cubic feet pile-volume per day are required to register the
2 burn project prior to burn and follow up after the burn with tracking, including documentation
3 of the use of emission reduction techniques. For burns with emissions of greater than one
4 ton of PM₁₀ emissions per day, burners are required to provide an explanation on the
5 registration form why they did not utilize alternatives to burning.

6
7 **~~[G]~~ (f) Annual Emission Goals (AEGs)**

8
9 **~~[(1) AEGs and Emission Reduction Techniques (ERTs).]~~**

10
11 Pursuant to 40 CFR 51.309(d)(6)(v), efforts will be made ~~[by the Albuquerque-Bernalillo~~
12 ~~County Air Quality Control Board (AQCB)]~~ within Bernalillo County to minimize emission
13 increases from fire, excluding wildfire, to the maximum extent feasible, through the
14 establishment of annual emission goals, ~~[To support the establishment of AEGs, the~~
15 ~~Department will use the WRAP report]~~ in accordance with the WRAP's Annual Emission
16 Goals for Fire Policy ~~[for guidance]~~ (see Appendix N-O). This policy recognizes that
17 Emission Reduction Techniques (ERTs) can be used to minimize emissions from fire. The
18 AQCB Department will establish a collaborative mechanism for setting annual emission
19 goals and ~~[develop]~~ developing a process for tracking their attainment on ~~[an annual]~~ a yearly
20 basis.

21
22 The projection and tracking of ERT use is a minimum element of the quantifiable annual
23 emission goal. The ~~[Annual Emissions Goal]~~ AEG ~~[utilizes]~~ should utilize the projection of
24 total emissions inventory for prescribed fire and agricultural burning such that the effect of
25 projected ~~[emission reduction techniques]~~ ERTs or percent-use of ERTs are shown in
26 relation to projected total emissions. Should projected annual emissions not be available,
27 the Department must develop such an inventory and submit a timeline for developing the
28 inventory. This timeline will coincide with the capacity of the ~~[WRAP Emission Data System]~~
29 WRAP's Emissions Data Management System (EDMS) and/or WRAP's Fire Emissions
30 Tracking System (FETS), to provide such an inventory, or prior to the first SIP revision
31 period. Where ERT's or other emission reduction methods cannot be quantified with
32 confidence due to the current state of the science, such as for agricultural burning, states
33 should say so and support efforts toward further refinements in emission reduction (or
34 emissions averted) calculation methodologies.

35
36 The Department intends to use this policy and quantify the ERTs that are being used within
37 Bernalillo County on a project-specific basis to reduce the total amount of emissions being
38 generated from areas where prescribed fire is being used. The use of ERTs to meet this rule
39 requirement is subject to economic, safety, technical and environmental feasibility, and land
40 management objectives.

41
42 **~~[(2) Process for Establishing AEGs.]~~**

43
44 The AQCB and the Department ~~[will]~~ shall work to establish AEGs in a cooperative process
45 with stakeholders, which ~~[will]~~ shall include the State of New Mexico Environment
46 Department, participating tribes, ~~[relevant]~~ affected federal land management agencies
47 including a representative form from the Cibola National Forest and ~~[appropriate]~~ affected
48 private entities. ~~[To support the establishment of]~~ In developing the AEGs, the Department
49 ~~[will]~~ shall review the registration data provided by burners for the upcoming burn year, the
50 tracking data submitted by burners for the previous year, and evaluate the use of emission
51 reduction techniques (both those tracked for the previous year and those planned for the

1 upcoming year). These data will permit the evaluation of the potential (for the upcoming
2 year) and actual (from the previous year) emissions from fire in the absence of the use of
3 ERTs and to determine the amount of emissions that were averted by the use of ERTs. The
4 amended Open Burning regulation requires the use of at least one ERT for all prescribed
5 fires with emissions ~~[of over]~~ exceeding one ton of PM₁₀ per day.

6
7 The Department ~~[will]~~ shall review the gathered data with stakeholders on an annual basis.
8 This data ~~[will]~~ shall be used to establish the ~~[annual emission goals]~~ AEGs for the upcoming
9 year. After the Department has completed the technical evaluations regarding the
10 establishment of the AEGs, the Department ~~[will]~~ shall ~~[recommend]~~ submit the proposed
11 AEGs to the AQCB. The first set of AEGs ~~[will]~~ shall be established by the AQCB by
12 resolution no later than April 30, ~~[2006]~~ 2009 and the public will be given an opportunity to
13 review the proposed AEGs and submit comments to the AQCB. The AEGs ~~[will]~~ shall be
14 reviewed annually and updated as appropriate following the same process. The AEGs ~~[will]~~
15 shall be made available to the public upon request. The AQCB ~~[will]~~ shall also review the
16 emissions inventory data and other information related to fire emissions to evaluate whether
17 the AEGs have been met or exceeded.

18 19 20 ~~[IX.]~~ **F. PAVED & UNPAVED ROAD DUST**

21 22 ~~[A]~~ **Introduction & Requirements:**

23
24 The Regional Haze Rule (RHR) ~~[requires]~~ required states to assess the impact of dust
25 emissions on regional haze in the 16 Class I Areas on the Colorado Plateau in the first
26 implementation plan ~~[due]~~ submitted in December of 2003, and was to include a projection of
27 visibility conditions through 2018 for the least and most impaired days. Page 35753 of the
28 Preamble to the RHR discusses the requirements for paved and unpaved road dust.

29
30 If dust emissions ~~are~~ were determined to be a significant contributor to visibility impairment,
31 the state ~~[must]~~ would have been required to implement emissions management strategies to
32 address their impact. The road dust assessment is limited to the 16 Class I Areas on the
33 Colorado Plateau.

34 35 36 ~~[B)]~~ **(a) Impact of Paved and Unpaved Road Dust Emissions:**

37
38 Pursuant to 40 CFR 51.309(d)(7), the Western Regional Air Partnership (WRAP) assessed
39 the impact of dust emissions from paved and unpaved roads from transport region states on
40 the 16 Class I Areas of the Colorado Plateau.

41 42 ~~[C)]~~ **(b) Contribution to Visibility Impairment Finding:**

43 44 ~~[(1)]~~ **Finding of No Impairment:**

45
46 Pursuant to 40 CFR 51.309(d)(7), ~~[Based on]~~ the results of the aforementioned assessment
47 ~~[on]~~ of the impact of dust emissions from paved and unpaved roads from transport region
48 states on the 16 Class I Areas of the Colorado Plateau performed by the WRAP (described
49 below) ~~[using the analytical tools available at this time,]~~ the [Albuquerque-Bernalillo County
50 Air Quality Control Board (AQCB)] Department has determined that regional scale dust
51 emissions for the purpose of the RHR are not a significant contributor to visibility impairment

1 within the Colorado Plateau 16 Class I Areas. Based on these findings, no specific emission
2 management strategies have been identified for inclusion in this SIP submittal.

3
4 The AQCB Department will continue to work with EPA and other entities to research the
5 effects of road dust on visibility impairment, and will re-evaluate whether or not additional
6 dust control strategies should be developed to address regional haze.

7 8 **[(2)] WRAP Modeling Results.**

9
10 Road dust emission inventories were developed for WRAP states and the significance of
11 road dust was then tested using the regional air quality model. Across WRAP states, paved
12 road dust emissions increase by about 3% per year from 1996 to 2018, per the increase in
13 vehicle miles traveled. Unpaved road dust emissions are projected to decrease between
14 1996 and 2018, by about 0.75 % per year, because of reductions in unpaved road mileage
15 over time as more roads are paved. As a result, unpaved road dust emissions are about
16 80% of road dust PM₁₀ emissions in 1996, and about 65% of road dust PM₁₀ emissions in
17 2018. Overall, road dust PM₁₀ emissions increase by about 6% from 1996 to 2018.

18
19 The modeled regional impact of road dust emissions at the 16 Colorado Plateau Class I
20 Areas ranged from 0.31 deciviews (3.1% of natural conditions to be reached by 2064) at the
21 Black Canyon of the Gunnison National Park to 0.08 deciviews (0.8% of natural conditions to
22 be reached by 2064) at the Weminuche Wilderness. From these preliminary results, the
23 WRAP has determined that the regional impacts of road dust emissions are not significant at
24 the 16 Colorado Plateau Class I Areas at this time. However, based upon the WRAP's most
25 recent analysis and a recognition that the modeling will improve, the AQCB Department has
26 determined that further research will be needed. Unpaved road dust will be reevaluated as
27 part of the SIP revision due in [2008] 2013.

28 29 30 **[(D)] (c) Tracking of Road Dust Emissions:**

31
32 ~~If road dust emissions are determined to be significant,~~ the AQCB The Department shall
33 track road dust emissions with the assistance of the WRAP, consistent with provisions of the
34 RHR and other relevant EPA and WRAP guidance. The AQCB Department shall provide
35 an update on paved and unpaved road dust emission trends, including any modeling or
36 monitoring information regarding the impact of these emissions on visibility in the Colorado
37 Plateau 16 Class I Areas. These updates shall include a re-evaluation of whether road dust
38 is ~~a significant~~ an important contributor to visibility impairment. These updates shall be part
39 of the periodic implementation plan revisions pursuant to 40 CFR 51.309(d)(10).

40 41 **Current Efforts to Control Paved and Unpaved Road Dust Emissions**

42
43 The AQCB has taken a proactive approach to reducing PM10 emissions to keep Bernalillo
44 County in attainment status and protect the health of the community. On January 14, 2004,
45 the AQCB repealed the regulation, Airborne Particulate Matter, and replaced it with a more
46 rigorous regulation, Fugitive Dust Control, 20.11.20 NMAC, which became effective on
47 3/1/04. The intent of the regulation is to control fugitive dust generated by human impact on
48 the environment. Reducing fugitive dust reduces the adverse health effects of PM10 and
49 PM2.5 and it improves the quality of life for all residents. Preventing fugitive dust is also
50 important for safety and general welfare of the community.

1 The new regulation requires that persons must use reasonably available control measures to
2 reduce fugitive dust and keep dust on the site where it is generated. Active operations are
3 prohibited from causing fugitive dust that adversely affects health, public welfare, and safety,
4 impairs visibility or the reasonable use of property. Also, visible fugitive dust caused by
5 active operations cannot cross a property line for more than 15 minutes in one hour. Inactive
6 disturbed areas must be stabilized to prevent fugitive dust.

7
8 With some exceptions, a person who plans to disturb ¾ of an acre or more is required to
9 obtain a permit and pay fees. A new form of permit called a Programmatic Permit is issued
10 to public agencies on an annual basis for routine maintenance activities. The new regulation
11 places restrictions on the construction of new unpaved roadways longer than ¼ mile in
12 length, unpaved short-cuts, and unpaved parking areas. New unpaved areas will need to be
13 stabilized to limit fugitive dust.

14
15 For the first time, the fugitive dust regulation includes a wide range of reasonably available
16 control measures in the regulation itself. (i.e. Silt fencing around construction sites, re-
17 vegetation of a new roadway project, seed specifications, access control to unpaved
18 roadways, early construction of walls around housing projects, use of water trucks,
19 installation of paving and curbing, use of millings on shoulders, an access controlled
20 maintenance road, and a swale with revegetation, etc.).

21 22 ~~[X.]~~ **G. POLLUTION PREVENTION (P2)**

23 24 ~~[A]~~ **Introduction & Requirements:**

25
26 The Regional Haze Rule (RHR) requires a detailed assessment of Pollution Prevention (P2)
27 programs and activities in each state, and an estimate of emission reductions and visibility
28 improvements that could result from these programs and activities. This requirement is for
29 an assessment only; a state does not have to adopt any specific energy-related strategies or
30 regulations. Page 35754 in the Preamble to the RHR discusses the P2 requirements for
31 regional haze.

32
33 A state's 309 SIP must include the following: 1) a summary of all P2 programs currently in
34 place, 2) total energy generation capacity and production in the state and the percentage that
35 is renewable, 3) any incentive programs that reward efforts that go beyond compliance, 4)
36 any programs that preserve and expand energy conservation efforts, 5) any specific areas
37 where there is the potential for renewable energy to supply power in a cost-effective manner,
38 6) projections of the short and long-term emissions reductions, visibility improvements, cost
39 savings and secondary benefits associated with renewable energy goals and energy
40 efficiency and pollution prevention activities, and 7) the state's anticipated contribution
41 toward the renewable energy goals for 2005 and 2015.

42 43 ~~[B]~~ **(a) Summary of P2 Programs in the State.**

44
45 Pursuant to 40 CFR 51.309(d)(8)(i), Tables 13 through 17 ~~[on the following pages]~~ below
46 summarize all P2 programs [currently] in place in New Mexico (as of 2003) that could affect
47 Bernalillo County. Table 18 summarizes all renewable energy generation capacity and
48 production in use or planned as of 2002 in Bernalillo County. The renewable energy
49 generation capacity and production in use or planned for the State of New Mexico as of 2002
50 is presented in Appendix O-O for comparison. Table 19 summarizes the total energy
51 generation capacity and production in Bernalillo County, and the percent of the total that is

1 renewable. Total energy generation capacity and production in the State of New Mexico,
2 and the percent of the total that is renewable, is presented in Appendix O-O for comparison.
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Table 13: Policy Mechanisms to Promote Renewable Energy

Program Title	Program Description
Renewable Portfolio Standard	<p>Eligible Technologies: Solar, Thermal, Electric, Photovoltaic, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells</p> <p>Standard: 5% in 2006, rising to 10% in 2011</p> <p>Technology Minimum: No</p> <p>Credit Trading: Yes</p> <p>Date Enacted: 12/17/02 Effective Date: 7/1/2003</p> <p>Website: http://www.nmprc.state.nm.us/utility.htm</p> <p>Authority 1: <u>NM PRC Case No. 3619</u> Authority 2: <u>17.9.572 NMAC</u></p> <p>Summary:</p> <p>This rule requires public utility companies to produce 5% of all energy they generate for New Mexico customers from solar, wind, hydropower, biomass, or geothermal sources by 2006. Generation from renewables must increase by at least 1% per year until the portfolio standard (RPS) of 10% is attained in the year 2011.</p> <p>Utilities document compliance with the RPS with Renewable Energy Certificates (REC), which represent kilowatt hours (kWH) of renewable energy produced.</p> <p>One kWH of electricity generated by wind or hydroelectric technologies is worth one kWH toward compliance with the RPS; One kWH of biomass, geothermal, landfill gas, or fuel cell power is worth two kWH REC; and One kWH of solar power is worth three kWH REC</p> <p>Investor owned utilities and electric cooperatives are required to offer a voluntary renewable energy tariff (green pricing program) for those customers who want the option to purchase additional renewable energy. El Paso Electric has filed an appeal with the state Supreme Court, taking issue with the rule. That case is currently pending with the court.</p> <p>John Curl NM Public Regulation Commission 224 East Palace Ave., Marian Hall Santa Fe, NM 87501 Phone: (505) 827-6960 E-Mail: john.curl@state.nm.us Web site: http://www.nmprc.state.nm.us/</p>

Program Title	Program Description
Mandatory Utility Green Power Option	<p>Incentive Type: Mandatory Utility Green Power Option</p> <p>Eligible Technologies: Photovoltaic, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells</p> <p>Applicable Sectors: Utilities</p> <p>Date Enacted: 12/17/02</p> <p>Authority 1: <u>17.9.572.10D NMAC</u> Authority 2: NMPRC Case No. 3619</p> <p>Summary:</p> <p>The New Mexico Public Regulation Commission (NMPRC) has approved a renewable energy rule that requires investor owned utilities and electric cooperatives to offer a voluntary renewable energy tariff (green pricing program) for those customers who want the option to purchase additional renewable energy. These utilities must also develop an educational program on its voluntary renewable energy program. The renewable energy tariffs must be filed with the NMPRC by the end of September 1, 2003.</p> <p>The rule also requires public utility companies to produce 5% of all energy they generate for New Mexico customers from solar, wind, hydropower, biomass, or geothermal sources by 2006. Generation from renewables must increase by at least 1% per year until the renewable portfolio standard (RPS) of 10% is attained in the year 2011.</p> <p>Contact:</p> <p>John Curl New Mexico Public Regulation Commission 224 East Palace Ave. Marian Hall Santa Fe, NM 87501 Phone: (505) 827-6960 E-Mail: john.curl@state.nm.us Web site: http://www.nmprc.state.nm.us/</p>

Program Title	Program Description
Net Metering	<p>Incentive Type: Net Metering Rules</p> <p>Applicable Sectors: Commercial, Industrial, Residential</p> <p>Limit on System Size: 10 kW</p> <p>Limit on Overall Enrollment: None</p> <p>Treatment of Net Excess: Avoided cost or credited to the following month</p> <p>Utilities Involved: All utilities</p> <p>Interconnection Stds. for Net Metering? Yes</p> <p>Date Enacted: 1998, amended 1999 Effective Date: 12/31/98 Expiration Date: none</p> <p>Authority 1: <u>17 NMAC 10.571</u> Authority 2: <u>1998 NM PUC Order 2847</u></p> <p>Summary:</p> <p>The New Mexico Public Regulation Commission (PRC) has issued a rule requiring all utilities regulated by the PRC to offer net metering for cogeneration facilities and small power producers with systems of 10 kW or less. Municipal utilities are exempt because they are not regulated by the PRC. There is no statewide cap on the number of systems eligible for net metering.</p> <p>Net excess electricity generated by a qualifying system must be credited to the customer on the next bill by either (1) crediting or paying the customer for the net energy supplied to the utility at the utility's "energy rate"; or (2) crediting the customer for the net kilowatt-hours of energy supplied to the utility. Unused credits shall be carried forward from month to month. In this case, if a customer leaves the system, utilities must pay the customer for any unused credits at the utility's "energy rate".</p> <p>This rule amended New Mexico's November 30, 1998, net metering ruling, PSC Final Order Case #2847. Under this rule, net excess generation was credited to the customer's next monthly bill with any unused credited granted to the utility at the end of the year.</p> <p>Contact:</p> <p>John Curl New Mexico Public Regulation Commission 224 East Palace Ave. / Marian Hall Santa Fe, NM 87501 Phone: (505) 827-6960 E-Mail: john.curl@state.nm.us Web site: http://www.nmprc.state.nm.us/</p>

Program Title	Program Description
System Benefits Charge	<p>The <i>Electric Utility Industry Re-structuring Act of 1999</i> [Sections 62-3A-1 to -23, NMSA 1978]</p> <p>Under this Act, retail competition for electricity supplies was scheduled to begin in New Mexico on January 1, 2002.</p> <p>A "System Benefits Charge" of three-hundredths of one cent (\$0.0003) per kilowatt-hour (kWh) of electricity sold is imposed by the Act. The charge rises to six-hundredths of a cent (\$0.0006) per kWh beginning in 2007. Money resulting from this charge on all customers' electric bills will be deposited in a newly established "System Benefits Fund." Currently, this collection began on January 1, 2002. The New Mexico Environment Department (NMED) is to disburse money from the Fund for PRC public education programs (\$500,000 annually); low-income energy assistance (no less than \$500,000 annually); renewable energy for cities, counties and school districts (no more than \$4 million annually); and for renewable energy and transmission lines in low-income areas with little or no electrical service (no more than \$4 million annually). The money in this fund will be used in New Mexico for several "public benefit" purposes:</p> <ol style="list-style-type: none"> 1. Consumer education 2. Weatherization projects 3. Initiation, development, & evaluation of renewable energy projects 4. Electric service to unserved and underserved areas <p>www.emnrd.state.nm.us/Mining/resrpt/00/5Second.pdf</p>

Program Title	Program Description
Line Extension	<p>Incentive Type: Line Extension Analysis</p> <p>Eligible Technologies: Photovoltaic</p> <p>Applicable Sectors: Commercial, Residential, Utilities</p> <p>Availability: none</p> <p>Requirements: none</p> <p>Service: Information provided by utility</p> <p>Expiration Date: none</p> <p>Authority 1: NMPUC Case Number 2476</p> <p>Summary:</p> <p>Due to New Mexico Public Utility Commission Case Number 2476, electric utilities in the state are required to provide information on alternative energy systems to remote customers with less than a 25-kW load who request line extensions. This requirement applies when the cost of the requested line extension is greater than 15 times the estimated annual revenue from the line extension. In such cases, utilities must provide customers with information on suppliers of alternative energy systems.</p> <p>Contact:</p> <p>John Curl New Mexico Public Regulation Commission 224 East Palace Ave. Marian Hall Santa Fe, NM 87501 Phone: (505) 827-6960 E-Mail: john.curl@state.nm.us Web site: http://www.nmprc.state.nm.us/</p>

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Table 14: Financial Incentives to Promote Renewable Energy

Program Title	Program Description
<p>New Mexico Renewable Energy Production Tax Credit</p>	<p>Incentive Type: Corporate Tax Credit</p> <p>Eligible Technologies: Solar; Thermal, Electric, Photovoltaic, Wind, Biomass</p> <p>Applicable Sectors: Commercial, Industrial</p> <p>Amount: 1 cent/kWh</p> <p>Max. Limit: First 400,000 MWh</p> <p>Terms: Eligible for 10 consecutive years</p> <p>Date Enacted: 3/4/02 Effective Date: 7/1/02</p> <p>Website: http://www.state.nm.us/tax/forms/year02/rpd41227.pdf</p> <p>Authority 1: New Mexico Statutes Annotated, Section 7-2A-19. Authority 2: 3.13.19 NMAC</p> <p>Summary: This tax incentive was enacted into law during the 2002 New Mexico Legislative Session. It originally provided a tax incentive in the amount of one cent (\$0.01) per kilowatt-hour for each kilowatt-hour of electricity generated from solar or wind energy resources. The credit is applied against a company's state income tax liability. Qualifying facilities had to be at least 20 megawatts in size, with the credit available up to a maximum of 400,000 megawatt-hours per year per company or 800,000 megawatt-hours per year in the aggregate for all companies. The statute was amended in 2003 to include biomass as a qualifying form of source material. Other amendments included lowering the minimum megawatt limit for qualifying projects from 20MW to 10MW to allow smaller wind, solar and biomass projects to qualify; and increasing the total amount of the credit available each year from 800,000 megawatt-hours to 2,000,000 megawatt-hours.</p> <p>Contact: Harold Trujillo NM Energy, Minerals & Natural Resources Dept Energy Conservation and Management Division P.O. Box 1948 / 1220 South Saint Francis Drive Santa Fe, NM 87504 Phone: (505) 827-7804 Fax: (505) 827-3903 E-Mail: hjtrujillo@state.nm.us Web site: http://www.emnrd.state.nm.us/ecmd</p>

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Industrial Revenue Bond (IRB) Financing	Statutory/Regulatory Citation: New Mexico Statutes Annotated: NM Industrial Revenue Bond Act (Section 3-32-1 <i>et seq.</i>); and County Industrial Revenue Bond Act (Section 4-59-1 <i>et seq.</i>) [http://www.legis.state.nm.us]	Description: The cited laws provide that any county or municipality may issue Industrial Revenue Bonds (IRBs) for the purpose of financing electric generating plants, including those fueled by renewable resources. The significance of IRB financing is the associated tax advantages.
Gross Receipts Tax Exemption for Wind Equipment	Statutory/Regulatory Citation: New Mexico Statutes Annotated, Section 7-9-54.3 [http://www.legis.state.nm.us];	Description: This law provides wind developers an exemption from the gross receipts tax for certain wind equipment, including nacelles and rotors, <i>provided</i> the project is financed with Industrial Revenue Bonds (Section 7-9-54.3 NMSA 1978).

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Table 15: Programs to Promote Renewable Energy

Policy Program Title	Program Description
State Energy Program	<p>State Energy Program</p> <p>The State Energy Office administers the U.S. DOE State Energy Program grant and implements program goals to encourage energy efficiency and renewable-energy usage, provide energy education and community outreach, offer policy advise to the Executive and Legislative branches, and help New Mexico citizens reduce their utility bills and improve their comfort and safety.</p> <p>The Energy Office is funded through a combination of federal funds and Petroleum Violation Escrow funds.</p> <p>Director: Chris Wentz (505) 476-3312 http://www.emnrd.state.nm.us</p> <p>Special Projects</p> <p>The State Energy Office administers the State Energy Program – Special Project Grants. Each year states submit proposals in response to a DOE solicitation identifying how specific technologies could be implemented in their region of the country. DOE then selects the projects that best meet national energy goals. The Energy Office publicizes grant availability, helps prepare grant applications, selects partners for project implementation and administers grants.</p>

3

Policy Program Title	Program Description
Solar Development and Use	<p>New Mexico Million Solar Roofs Partnership</p> <p>Incentive Type: Outreach Program</p> <p>Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Photovoltaic, Solar Pool Heating Systems</p> <p>Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Utilities, State Government, Tribal Government</p> <p>Goal: Install 600 solar systems in New Mexico, and one million nationwide by the year 2010</p> <p>Date Enacted: 1997</p> <p>Website: http://www.emnrd.state.nm.us/ecmd/html/solar.htm</p> <p>Summary:</p> <p>The Energy Conservation and Management Division of the New Mexico Energy, Minerals and Natural Resources Department lead the New Mexico Million Solar Roofs Initiative (MSRI). The U.S. DOE, through its Regional Offices, focuses its efforts on national, state and local partnerships. These partnerships are made up of the building industry, other federal agencies, local and state governments, utilities, energy service providers, the solar energy industry, financial institutions, and non-governmental organizations. The goal is to remove market barriers to solar energy use, develop, and strengthen local demand for solar energy products and applications.</p> <p>Contact:</p> <p>Michael McDiarmid, P.E. NM Energy, Minerals & Natural Resources Dept Energy Conservation and Management Division 1220 South Saint Francis Drive Santa Fe, NM 87505 Phone: (505) 476-3319 Fax: (505) 476-3322 E-Mail: mmcdiarmid@state.nm.us</p> <p>Schools with Sol Solar Demonstration</p> <p>The Schools with Sol program is managed by ECMD to implement one of Governor Richardson's conservation agenda goals, which is to provide solar power to 10 schools each year. Solar energy systems will be installed at New Mexico schools, competitively selected, to be used as demonstrations in renewable energy education for K-12 students, as well as reduce energy consumption. Both photovoltaic and solar domestic water heating systems will be used. A teacher at each participating school will "champion" their system</p>

Policy Program Title	Program Description
	<p>through educational activities in renewable energy. System installers will be selected from statewide price agreements. ECMD is using \$100,000 in federal funds to implement the current FY2004 cycle of 10 school installations, with an additional \$18,000 provided by Public Service Company of New Mexico and in-kind contributions provided by participating schools.</p> <p>Solar Rights Act of 1978 Incentive Type: Solar Access Law/Guideline</p> <p>Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics</p> <p>Applicable Sectors: Commercial, Industrial, Residential</p> <p>Easement: Yes</p> <p>Covenant: No</p> <p>Zoning/Development: Yes</p> <p>Date Enacted: 1/1/78 Expiration Date: none</p> <p>Authority 1: New Mexico Code 47-3-1 -- 47-3-11</p> <p>Summary: New Mexico's Solar Rights Act of 1978 allows property owners to create solar easements for the purpose of protecting and maintaining proper access to sunlight. The New Mexico Energy Conservation and Management Division reports that three to five solar easements are granted each year. The Solar Rights Act also includes provisions allowing local governments to create their own ordinances or zoning rules pertaining to the protection of solar rights.</p> <p>Contact: Harold Trujillo New Mexico Energy, Minerals and Natural Resources Department Energy Conservation and Management Division P.O. Box 1948 1220 South Saint Francis Drive Santa Fe, NM 87504 Phone: (505) 827-7804 Fax: (505) 827-3903 E-Mail: hjtrujillo@state.nm.us Web site: http://www.emnrd.state.nm.us/ecmd</p>

Policy Program Title	Program Description
	<p>Solar Recordation Act Authority 1: New Mexico Code 47-3-6 to -12 [http://www.legis.state.nm.us]</p> <p>Description: The Solar Recordation Act declares that solar energy is a viable energy source in New Mexico and, as such, its development should be encouraged. The purpose of the Act is to accomplish such encouragement through the protection of solar rights necessary for small-scale installations. A solar right is considered an “easement appurtenant” and may be claimed by an owner of real property upon which a solar collector has been placed. The solar right is claimed and recorded by filing a declaration with the county clerk of the applicable county where the property is located; a sample declaration is included in the statute as are provisions for notification of affected property owners. The statute also provides for the transfer of solar rights when a property changes ownership.</p> <p>Solar Energy Development Act Authority 1: New Mexico Code 71-6-1 to -3 [http://www.legis.state.nm.us]</p> <p>Description: The purpose of Solar Energy Development Act is to promote development and use of solar energy in New Mexico, by both industry and government, for the benefit of New Mexico and United States citizens. It is proposed to accomplish this purpose through active measures to encourage the location within New Mexico of research to discover practical and feasible methods to harness solar energy, as well as development of a vigorous and productive solar energy industrial complex. The New Mexico Economic Development Department is charged with various responsibilities under the Act, including establishment and operation of a program to encourage investment in the research and application of solar energy within New Mexico; development of necessary promotional material to be used in the process of attracting new investment capital within the solar energy field; employing sufficient staff to carry out the purpose of this law; and cooperation with private firms and all agencies of the state and federal government in furthering research and investment in solar energy use in New Mexico.</p> <p>Solar Collector Standards Act Authority 1: New Mexico Code 71-6-4 to -10 [http://www.legis.state.nm.us]</p> <p>Description: [The purpose of the Solar Collector Standards Act is] To develop and implement a program to promote solar industry and stimulate a demand for high quality solar components and systems. The New Mexico Energy, Minerals and Natural Resources (EMNRD) is charged with the responsibility under the Act to promulgate regulations to define minimum standards for the durability and reliability of solar collectors; and to establish criteria for testing the durability, reliability and thermal efficiency of solar collectors. The Department is also authorized to develop and implement a solar collector certification program. EMNRD promulgated appropriate regulations and implemented the</p>

Policy Program Title	Program Description
	specified certification program in the mid-1980s until the expiration of federal and state solar tax credits.

Program Title	Program Description
<p>Biomass Development and Use Program</p>	<p>Western Regional Biomass Program</p> <p>Biomass Industry Development Working Group</p> <p>The Energy, Minerals and Natural Resources Department is serving as the convener of a Biomass Industry Development Work Group in New Mexico. The purpose of this group is to develop a coordination process to encourage and assist in the development of a viable biomass industry in New Mexico, resulting in improved forest health and increased use of domestic biomass resources to stimulate economic development. This process will include assessing opportunities, current projects, end products (biofuels, biopower and bioproducts), supply, technologies, incentives, barriers, funding and economics.</p>
<p>Wind Development and Use Program</p>	<p>Wind Powering America Program</p> <p>NM Wind Energy Working Group</p> <p>The New Mexico Wind Energy Working Group was established in December 2000. It is an informal organization of representatives from both the public and private sectors, including wind developers, related businesses, federal/state/tribal/local governments, national laboratories, electric utilities, universities, and renewable energy advocates. Approximately 80 individuals are now included on the NM Wind Working Group e-mail address list. The Energy Conservation and Management Division of the New Mexico Energy, Minerals and Natural Resources Department coordinates the group, with assistance from Sandia National Laboratories-Albuquerque and the U.S. DOE's <i>Wind Powering America</i> program.</p> <p>A primary role of the Working Group is to function as a stakeholder organization that can act and speak collectively on behalf of geothermal interests operating in New Mexico. Key tasks and activities of the NM Wind Energy Working Group are: serve as a forum for networking, communications and coordination among wind stakeholders; acquisition and dissemination of information about existing wind resources, their development and use in electric generation; identification and delineation of the issues that impede expansion of wind applications; and removal of barriers to geothermal advancement.</p> <p>New Mexico Wind Energy Center</p> <p>PNM and FPL Energy in October 2002 announced an agreement to develop the New Mexico Wind Energy Center, to be built in eastern New Mexico. Power produced at the energy center in eastern New Mexico will flow onto the PNM-owned electric grid. PNM has introduced a "green tariff," subject to approval by state regulators [that] <u>which</u> would allow customers to sign up for and support energy from this renewable project through payment of a small monthly premium. To the extent customers subscribe to the program, PNM will direct that amount of energy toward meeting local (jurisdictional) needs. PNM will seek to sell the remainder of</p>

the power on the wholesale market, either within or outside of New Mexico. PNM's involvement with the New Mexico Wind Energy Center represents the largest private-sector investment in renewable energy in New Mexico history. PNM hopes to use residential and business participation in the voluntary green tariff program as a way to gauge support for these kinds of projects. PNM will use this information to guide any renewable projects it may undertake in the future. Three factors — improvements in wind technology, the scale of this project and the existence of both federal and state tax credits — make power from the New Mexico Wind Energy Center more cost-effective than power from other renewable energy sources currently available. The addition of energy from the New Mexico Wind Energy Center will change PNM's generation portfolio. Wind will comprise 8 % of PNM's overall generation capacity, which is the portfolio's peak potential output. However, because of the intermittent nature of wind, the facility is expected to comprise about 4 % of the energy actually produced by or for PNM over the course of a given year. (From "New Mexico Wind Energy Center" prepared by Public Service Company of New Mexico <http://www.pnm.com/systems/nmwec.htm>)

ConservationSmart from Xcel EnergySM - Windsource®

Incentive Type: Green Pricing Program

Eligible Technologies: Wind

Applicable Sectors: Commercial, Industrial, Residential, Xcel Energy electric customers

Premium: \$3.00 per block per month, 1 block = 100 kWh

Commitment: 1 year residential; 3 years commercial

Effective Date: 1999

Website: http://www.xcelenergy.com/XLWEB/CDA/0,2795,1-1-2_735_777-221-2_68_132-0,00.html

Summary:

Conservation Smart from Xcel EnergySM supports the Windsource® program in Colorado, Minnesota and New Mexico. All residential, commercial and industrial electric customers are invited to participate in this program, which supports grid-connected wind turbines. Residential customers can sign up for one year periods and buy wind energy at \$3.00/month for 100 kWh blocks; commercial customers can sign up for three year periods and either choose the "Leader" plan, buying all their energy from renewable resources, or the "Supporter" plan, buying in blocks similar to residential customers. Xcel Energy has used bill inserts and media events to market Windsource® and is working with environmental groups to further promote the program.

To sign up for Windsource®, call 1-800-824-1688 or download, print

	<p>and mail in the sign-up form from the <u>Windsorce®</u> website.</p> <p>Contact: Andy Sulkko Xcel Energy -Marketing Division 1225 17th Street, Suite 1100 Denver, CO 80202-5533 Phone: (303) 294-2554 E-Mail: andy.sulkko@xcelenergy.com Web site: http://www.xcelenergy.com/XLWEB/CDA/</p>
Hydrogen Development and Use Program	<p>Hydrogen Technology Partnership (HyTep)</p> <p>The Energy Conservation and Management Division is administering the U.S. DOE Industries of the Future (IOF) program in New Mexico. The Industries of the Future program seeks to bring together industry, academia, and state agencies to address industrial energy efficiency and pollution prevention. These public-private coalitions facilitate industry solutions locally and enhance economic development. New Mexico is currently focusing on the mining and forest products industry because of their high energy use, opportunities for pollution prevention and important role in New Mexico's economic development</p>

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Table 16: Policy Mechanisms to Promote Energy Efficiency/Energy Conservation

Policy Program Title	Program Description
Governor’s Executive Order: Resource Efficiency in State Government	<p>Since 1992 New Mexico State Government has been directed through Executive orders to reduce energy consumption and costs in state buildings. To accomplish the directive the State Energy Office has provided technical assistance, financial assistance grants, and worked with state agencies to develop and implement energy plans. New Executive Order currently being developed.</p>
Public Facility Energy Efficiency and Water Conservation Act	<p>New Mexico Statutes Annotated, Sections 6-23-1 to-10 [http://www.legis.state.nm.us]</p> <p>This legislation allows state agencies, school districts, and universities to enter into ‘Performance contracts’ whereby private sector energy service companies provide the up-front costs of energy saving measures (such as installation of more efficient lighting, motors, and heating systems) and guarantee energy savings to recoup their investment through the utility cost savings over the period of up to 10 years. By statute, the State Energy Office is responsible for review of the proposed contracts to ensure that savings estimates are accurate and reasonable prior to agencies entering into performance contracts.</p>
Green Purchasing: Energy Star Partnership	<p>New Mexico is working with the U.S. DOE and the Environmental Protection Agency to become a partner in the Energy Star Program to promote the benefits of energy efficient homes, buildings, and products. According to <i>Energy Star</i> Program if all available opportunities for energy efficiency improvements were taken advantage of more than \$229 million would be saved annually and 2.5 billion pounds of CO₂, 6 million pounds of NO_x, and 5.7 million pounds of SO₂ would be prevented each year in New Mexico.</p>

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Table 17: Programs to Promote Energy Efficiency/Energy Conservation

Policy Program Title	Program Description
State Government Energy Management Program	<p>Electric/Gas Utility Database</p> <p>Professional engineering staff with the State Energy Office maintains a utility database that tracks utility usage by state agencies. 30 utility companies provide the data across the state. The database is the sole centralized repository for information on the State’s \$13 million building energy expenditures.</p> <p>Energy Performance Contracting</p>
Public Schools Energy Efficiency Program	<p>Construction Plan Review</p> <p>Professional energy engineers within the State Energy office continue to work with school districts throughout New Mexico in an effort to improve their facilities’ energy efficiency. Under an agreement with the State Department of Education the construction plans are reviewed to ensure compliance with applicable building energy codes.</p> <p>Energy Performance Contracting</p> <p>New Mexico school districts utilize “performance contracts” to implement energy efficiency projects in school buildings that are paid from guaranteed energy savings. Private-sector energy service companies provide the up-front investment and installation of the energy efficient measures</p>
Public Schools Energy Efficiency Program	<p>Construction Plan Review</p> <p>Professional energy engineers within the State Energy office continue to work with school districts throughout New Mexico in an effort to improve their facilities’ energy efficiency. Under an agreement with the State Department of Education the construction plans are reviewed to ensure compliance with applicable building energy codes.</p> <p>Energy Performance Contracting</p> <p>New Mexico school districts utilize “performance contracts” to implement energy efficiency projects in school buildings that are paid from guaranteed energy savings. Private-sector energy service companies provide the up-front investment and installation of the energy efficient measures</p>
Commercial and Industrial Sector Energy Efficiency Program	<p>Building America Program</p> <p>Building Energy Codes/Standards</p> <p>The State Energy office has participated in several code technical advisory group meetings, provided graphical comparisons between old and new code requirements, and has been working with the Construction Industries Commission (CIC) to upgrade New Mexico’s residential and commercial building energy codes. Currently Energy Office efforts on codes are being concentrated in the areas of 1) codes adoption, and 2) training provided to the building industry designed to help insure that structures designed to code will be more energy efficient</p> <p>Current Residential Energy Code: 1992 MEC with state amendments, mandatory statewide.</p> <p>Current Commercial Energy Code: ASHRAE 90A-1980 and 90B-1975, mandatory statewide; ASHRAE/IESNA 90.1-1989 mandatory for state-</p>

Policy Program Title	Program Description
	<p>funded buildings. Code Change: Most recent code update effective 10/1/1994. (http://www.bcap-energy.org/backissues.html)</p> <p>Green Zia Environmental Excellence Program The Green Zia Environmental Excellence program is a voluntary program designed to support and assist all New Mexico businesses to achieve environmental excellence through continuous improvement and effective energy management. The program encourages integration of environmental excellence into business operations and management practices through establishment of a prevention-based environmental management system. The Governor of New Mexico recognizes and presents awards annually to organizations that successfully participate in the program.</p> <p>Rebuild America/Rebuild NM Program Lead Organization: Rebuild New Mexico/NM Energy, Minerals and Natural Resources Department (NM EMNRD) The City of Albuquerque joined Rebuild America in 1998. By 1999, this partnership had morphed into the larger Rebuild Central New Mexico. IRS designated Rebuild Central N.M. with 501(c)3 status in 2002. Rebuild NM supports reducing energy costs, water consumption and pollution to save energy, boost the economy and support national security. Partners include businesses, local governments, schools, and community and professional organizations Rebuild Central New Mexico received two DOE grants for FY 2002: 1. Promote updated Codes and Standards to the construction industry, including architectural surety and energy efficiency; 2. Provide broad educational programs, partner development and workshops on energy efficiency. Administration's energy goals include: generation of 10% of the State's energy from renewables, becoming one of the top three wind producing states by the end of 2006, expanding net metering, achieving increased energy savings in state buildings and putting clean, fuel efficient vehicles on the roads. Albuquerque Public Schools—saved 489,617 KWh and \$36,971 compared to the 2000-01 school year due to behavior changes in the use of energy by students, teachers and staff. In the 1st quarter of 2002-2003, 31 participating schools have saved 1,096,126 KWh and \$82,594 compared to 2000-2001. The City of Albuquerque's recently enacted 1% of the Capital Program for Energy Conservation Projects, and is a national milestone. Albuquerque Housing Authority is implementing Performance Contracting as a financing option to save energy and costs long term. Rebuild NM received Rebuild America's Energy Champion Award for Commercial Buildings in 2002 for its audit work. Efforts are currently underway to follow up these audits with implementation plans and strategies, which will provide more insight regarding retrofit and cost savings. (http://www.rebuild.org/news/newsdetail.asp?NewsID=1583)</p>

Policy Program Title	Program Description
	<p>Julie Stephens, Coordinator Partnership Main Contact Rebuild Central New Mexico 1801 Fourth Street NW - Bldg. B Albuquerque, NM 87102 Phone: (505) 768-5346 Fax: 505 768-5317 E-Mail: info@rebuildnewmexico.org; rebuildnmjulie@aol.com</p> <p>http://www.rebuild.org/sectors/communitylocal_state.asp?OrganizationID=83</p> <p>Industries of the Future Program The US DOE Program seeks to broaden the impact of investments in advanced industrial technologies and practices for energy efficiency and waste reduction through implementation of nationally developed IOF vision and technology roadmaps. New Mexico is currently conducting inventories of energy use and pollution prevention within the mining and forest industries in the state and will be working on a sustainability plan.</p>
Residential Sector Energy Efficiency Program	<p>Weatherization Assistance Program The New Mexico Mortgage Finance Authority through an Agreement with the State of New Mexico administers New Mexico's Weatherization Assistance Program (federal and private funds), low-income, weatherization program The primary mission of this program is to reduce the energy required for space heating and cooling for income eligible households applying for assistance through the process sub-grantees, statewide. This program receives its primary funding from the U.S. DOE and the U.S. Department of Health and Human Services. The program also leverages additional funds through partnership with utilities, and other federal and state housing programs. Many aspects of the Residential Training and Technical Assistance Programs are now incorporated into the training of Weatherization sub-grantees, which assures that savings are maximized.</p> <p>Low-Income Home Energy Assistance Program (LIHEAP) LIHEAP is a Federally-funded program that helps low-income households with their home energy bills. LIHEAP assists low-income households in meeting the costs of heating and cooling their homes. States, Tribes and Insular areas, which assist low-income households with high-energy burdens and vulnerable members may apply for LIHEAP block grant funds. LIHEAP benefits include heating or cooling assistance; energy crisis interventions to cope with weather-related and supply-shortage home energy emergencies; low-cost residential weatherization and other energy-related home repairs to assist in safely increasing the efficiency of home energy consumption. The Office of Community Services administers this program. Hub activities are limited to referral services and general information dissemination activities regarding grant opportunities</p>

Policy Program Title	Program Description
	<p>and announcements Lori Williams, LIHEAP Program Mgr Income Support Division Community Development & Commodities Bureau New Mexico Human Services Department 5301 Central NE, Suite 1520 Albuquerque, New Mexico 87108 TEL: (505) 841-6535 (Albuquerque area) or 1-800-283-4465 (statewide) FAX: (505) 841-6522 E-MAIL: Loretta.Williams@state.nm.us www.state.nm.us/hsd/isd.html</p> <p>Paisano-Weatherization Program 6729 4th St. NW Albuquerque, NM Phone (505) 344-7211 Weatherization program for low-income residents of Bernalillo, Sandoval, Torrance and Valencia Counties.</p> <p>High-Efficiency Washing Machine Program Sponsor: City of Albuquerque Energy Star Platform: No Service Territory: 480,000 residents of Albuquerque and Bernalillo County, New Mexico Goals & Objectives: To encourage utility customers to buy high-efficiency machines and to help bring down the cost of the machines by increasing the volume of sales. The program goal for 2002 is to provide 1,100 credits. Program Description: The City of Albuquerque provides a credit on the water bills of customers who purchase a CEE-qualified washer. Incentives: Clothes Washers: \$100 credit on water bills for CEE-qualified clothes washers. Field Support: City of Albuquerque provides rebate information and forms to participating retailers. Marketing: bill inserts, and newspaper articles. Budget: FY2002 \$110,000</p> <p>Further Information: Jean Witherspoon 505-768-3633 jasw@cabq.gov www.cee1.org/resid/seha/02seha-progsum.pdf</p>

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Table 18: Summary of Renewable Energy Generation Capacity and Production in Use or Planned as of 2002 in Bernalillo County

Categories	Year 2002 (kW)	Existing & Planned as of 2002 (kW)	Total kWh in 2002
Solar	6.6	6.6	6.6
BioGas	2200	2200	2200
TOTAL	2206.6	2206.6	2206.6

(From *Custom Report: Plant Name, Utility, City, Year Operational, Operational Status, Unit Number, and Capacity (kW) by State, Technology, and Fuel*, prepared by Renewable Electric Plant Information System (REPiS), Office of Energy Efficiency & Renewable Energy, U.S. Department of Energy. http://analysis.nrel.gov/repis/online_reports.asp and *Operating Facilities by Technology in the State of New Mexico*, prepared by the Energy Efficiency and Renewable Energy program of DOE http://www.eere.energy.gov/state_energy/opfacbytech.cfm?state=NM)

Table 19: Total Energy Generation Capacity and Production in Bernalillo County.

Operator	Plant Name	Fuel	MW	Percent Of Total That Is Renewable
PNM	Reeves Station	Natural gas	154	0
Delta Power LLC	Delta-Person Generating Station	Natural gas	132	0
TOTAL			286 MW	0

After "Power Plants" prepared by Public Service Company of New Mexico (PNM). <http://www.pnm.com/systems/plants.htm>

C) (b) Summary of the Anticipated Contribution Toward the Renewable Energy Goals for 2005 and 2015.

Pursuant to 40 CFR 51.309(d)(8)(i), Appendix O-O summarizes the State's anticipated contribution toward meeting the GCVTC renewable energy goals for 2005 and 2015. See also Section H of this chapter. Bernalillo County's anticipated contribution toward meeting the GCVTC renewable energy goals for 2005 and 2015 is negligible.

D) (c) Incentive Programs:

Pursuant to 40 CFR 51.309(d)(8)(ii), Table 19 below identifies incentive programs in the State of New Mexico that reward efforts to go beyond compliance and/or achieve early compliance with air pollution related requirements and subsequently affect Albuquerque/Bernalillo County.

Table 20: Summary of New Mexico's Incentive Programs that Affect Bernalillo County

Program Title	Program Description
Green Zia Environmental Excellence Program	The Green Zia Environmental Excellence Program is a voluntary program designed to support and assist all New Mexico

	<p>businesses to achieve environmental excellence through continuous improvement and effective energy management. The program encourages integration of environmental excellence into business operations and management practices through the establishment of a prevention-based environmental management system. The Governor of New Mexico makes recognitions and awards annually to organizations that successfully participate in the program.</p> <p>The Six Core Values of the Green Zia Environmental Excellence Program are:</p> <ul style="list-style-type: none"> •Leadership Commitment •Efficient Product, Service and Process Design •Continuous Improvement and Organizational and Personal Learning •Valuing Employees and Partners •Management by Fact •Sustainability <p>New Mexico Environment Department Office of the Secretary Dave Wunker PO Box 26110 1190 St. Francis Drive Santa Fe, NM 87502 (505) 827-0677 (505) 827-2836 davewunker@nmenv.state.nm.us</p>
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Program Title	Program Description
<p>Industry and Government Partnership Pollution Prevention (P²) Awards</p>	<p>In 1997, the Albuquerque Environmental Health Department's Air Quality Division and New Mexico Facility Managers' Network (NMFMN) initiated the Industry and Government Partnership Pollution Prevention (P²) Awards to recognize industrial pollution prevention efforts. The goals of this partnership are to promote P², encourage the exchange of technical and managerial methods, and to facilitate innovative solutions to environmental impacts to air, water and land pollution.</p> <p>Joint Industry and Government Pollution Prevention Award Year 2001 Innovative Air P² Awarded to: Coronado Center-Randy Sanchez. Coronado Center supports local efforts to minimize air pollution in the community by providing park and ride programs for the New Mexico State Fair, International Balloon Fiesta and other events to significantly reduce the amount of pollution from motor vehicles. During the winter holiday season, Coronado Center initiates the "Carpool Corral" by reserving 40 parking spaces for multi- occupant vehicles. The seasonal pollution reduction for the six week winter holiday season in calendar year 2000 was approximately 1.14 tons of carbon monoxide. These initiatives help to sustain air quality during the Winter Pollution Advisory Season, conserve energy and support the local economy.</p> <p>Joint Industry and Government Pollution Prevention Award Year 2001</p>

	<p>Large Business Air Quality P² Award presented to: DOE Sandia National Laboratories / NM Michael duMond</p> <p>In 1997, The DOE / Sandia National Laboratories (SNL) initiated a study to improve operation of the Steam Plant that provides steam to energy services for Technical Area One and East Kirtland Air Force Base. The goal of the project was three-fold: maximize combustion efficiency, and reduce fuel usage and nitrogen oxides (NOx) emissions. The 2001 construction phase involved, retrofit of flue gas recirculation on boilers to complete the Steam Plant Optimization and Emission Reduction Project. The direct result of the initiatives is an increase in 1.5 percent efficiency and a total NOx reduction of 2.3 tons per year, with an additional 39.8 tons per year NOx reduction from the flue gas recirculation. The program also sustains a cost savings for natural gas consumption of over \$46,000 per year.</p> <p>Joint Industry and Government Pollution Prevention Award Year 2001 Small-Medium Business Air P² Award presented to: Rust Tractor T.J. Carr</p> <p>Rust Tractor is a local supplier of heavy equipment, including gas and diesel powered generators and boilers. Air Quality Division staff nominated Rust Tractor because of their long-term commitment to Bernalillo County air quality. In 1994, Rust Tractor's engineering staff initiated a policy to provide air quality registration documentation with all applicable equipment. This policy may not directly reduce carbon monoxide emissions, but educates their customers on the appropriate operation of generators or boilers. The service provides a streamlined purchase and registration process, saving time and money for the customer and assisting local air quality representatives in efficient permit processing</p> <p>http://www.nmfmn.com/Pages/Prc/Awards/2001_awards.htm#Top</p>
<p>Supplemental Environmental Project (SEP) Authority</p>	<p>The Albuquerque Bernalillo County Air Quality Control Board through the Department can utilize supplemental environmental projects in enforcement cases for pollution prevention projects.</p>

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1 **[E)] (d) Programs that Preserve and Expand Energy Conservation Efforts:**

2
3 Pursuant to 40 CFR 51.309(d)(8)(iii), Tables ~~[42]~~ 13 through ~~[46]~~ 17 identify programs in New
4 Mexico that preserve and expand energy conservation efforts which have a direct effect on
5 Bernalillo County.
6

7
8 **[F)] (e) Potential for Renewable Energy:**

9
10 Pursuant to 40 CFR 51.309(d)(8)(iv), the State of New Mexico has made an assessment of
11 areas where there is the potential for renewable energy to supply power in a cost-effective
12 manner. This assessment is described in Appendix O-O.
13

14
15 **[G)] (f) Projections of Renewable Energy Goals, Energy Efficiency and Pollution
16 Prevention Activities:**

17
18 Pursuant to 40 CFR 51.309(d)(8)(v), the WRAP has made regional projections ~~[have been~~
19 ~~made by the WRAP]~~ of the short and long term emissions reductions, visibility improvements,
20 cost savings, and secondary benefits associated with “renewable energy goals, energy
21 efficiency and pollution prevention activities”. A complete description of these projections is
22 provided in Appendix O-O of this Implementation Plan. Projections of visibility improvements
23 for the 16 Class I Areas on the Colorado Plateau are provided in Table 2a and Table 2b ~~[(see~~
24 ~~Chapter 4).]~~
25

26 These projections include the combined effects of all measures in this SIP, including air
27 pollution prevention programs. Although emission reductions and visibility improvements
28 from air pollution prevention programs are expected at some level, they were not explicitly
29 calculated because the resolution of the regional air quality modeling system is not currently
30 sufficient to show any significant visibility changes resulting from the marginal nitrogen oxide
31 emission reductions described above for air pollution prevention programs.
32

33
34 **[H)] (g) Demonstration of Progress in Achieving the GCVTC Renewable Energy Goal:**

35
36 Pursuant to 40 CFR 51.309(d)(8)(vi), Appendix O-O and Tables 13 through 17 of this
37 Implementation plan list the programs relied upon by the State of New Mexico to
38 demonstrate progress in achieving the renewable energy goal of the GCVTC—that
39 renewable energy comprise 10 percent of the regional power needs by 2005 and 20 percent
40 by 2015. Appendix O-O provides additional information on how these programs are meeting
41 the 10/20 goals, and a discussion of a regional modeling analysis showing progress in
42 meeting these goals. Appendix O-O includes documentation of the potential for renewable
43 energy resources, the percentage of renewable energy associated with new power
44 generation projects implemented or planned, and the renewable energy generation capacity
45 and production in use and planned in the state. Note that Bernalillo County is included in this
46 documentation.
47

48
49 **[I)] (h) Future Progress Reports:**

1 Pursuant to 40 CFR 51.309(d)(8)(vi), the ~~[AQCB]~~ Department shall submit progress reports
2 in ~~[2008,]~~ 2013, and 2018, describing ~~[their]~~ Bernalillo County's share of New Mexico's
3 contribution toward meeting the GCVTC renewable energy goals. This description shall be
4 consistent with Section ~~[H]~~ (g) above. To the extent that it is not feasible for Bernalillo
5 County to meet its contribution to these goals, the ~~[AQCB]~~ Department shall identify what
6 measures were implemented to achieve its contribution, and explain why meeting ~~[its]~~
7 Bernalillo County's contribution was not feasible.

8 9 ~~[XI.]~~ H. IMPLEMENTATION OF ADDITIONAL RECOMMENDATIONS

10 11 ~~[A) Introduction & Requirements:]~~

12
13 Section 51.309(d)(9) of the Regional Haze Rule (RHR) requires states to evaluate the
14 additional Grand Canyon Visibility Transport Commission (GCVTC) recommendations,
15 ~~[States must]~~ and determine if any of these recommendations, which were not originally
16 included in Section 309, are practical in their particular states and therefore should still be
17 addressed. Page 35755 of the Preamble to the Regional Haze Rule (RHR) discusses the
18 requirements for implementation of additional recommendations. The RHR does not require
19 adoption of any control measures unless the state determines they are appropriate. Any
20 measures adopted would need to be enforceable like the other Section 309 required
21 measures.

22
23 Note that neither the RHR regulatory language nor the RHR Preamble identifies these
24 additional recommendations. Therefore, states will need to review the GCVTC's report
25 *Recommendations for Improving Western Vistas* (June 10, 1996). States must identify those
26 recommendations not incorporated into Section 309 as the "additional" recommendations.
27 By not specifically identifying these recommendations in the final RHR, EPA has left it up to
28 each state to decide which additional recommendations it needs to address in its SIP.

29 30 ~~[B)]~~ (a) Evaluation of Additional Grand Canyon Visibility Transport Commission 31 (GCVTC) Recommendations

32
33 Pursuant to 40 CFR 51.309(d)(9), the ~~[Albuquerque-Bernalillo County Air Quality Control~~
34 ~~Board-AQCB]~~ Department has evaluated the GCVTC's "additional" recommendations to
35 determine if any of these recommendations can be practicably included in this
36 Implementation plan. At this time, the ~~[AQCB]~~ Department has elected not to adopt any of
37 the report's additional recommendations, which is permissible under the 309 SIP option.

38
39 To make this determination, the ~~[AQCB]~~ Department has reviewed the GCVTC
40 Commission's 1996 report *Recommendations for Improving Western Vistas to identify those*
41 *recommendations that were not incorporated into Section 309 of the Regional Haze Rule*.
42 The ~~[AQCB]~~ Department identified several recommendations in this report that were not
43 incorporated into Section 309 of the RHR. The results of this evaluation are presented in
44 detail below.

45
46 Listed by report section, the following GCVTC recommendations are not included in the final
47 RHR:

48 49 **(1) Pollution Prevention**

- 50
 - Encourage zero and near-zero emitting technologies

- 1 ▪ Consider charging emission fees
- 2 ▪ Promote education and public outreach efforts on preventing pollution
- 3 ▪ Introduce product labeling
- 4 ▪ Promote the use of clean fuels

5

6 **(2) Stationary Sources**

- 7 ▪ Implement existing Clean Air Act (CAA) requirements through the year 2000
- 8 ▪ The ultimate SO₂ emissions target, for the year 2040, locks in the 50-70% reduction
- 9 in SO₂ emissions
- 10 ▪ By 1997, facility owners and operators should notify states of pollution control or
- 11 prevention measures
- 12 ▪ Progress in complying with emissions target(s) will be assessed in the year 2000 and
- 13 at 5-year intervals thereafter.
- 14 ▪ The GCVTC encourages EPA to complete the study at the Mohave Power Project.

15

16 **(3) Mobile Sources**

- 17 ▪ Establish a regional emissions budget
- 18 ▪ The GCVTC promotes the following strategies on a national level:
 - 19 -adopt LEV standards (49 states)
 - 20 -support development of heavy-duty vehicle standards
 - 21 -adopt off-road vehicle standards
 - 22 -promote broader application of cleaner fuels
 - 23 -pursue control strategies for diesel locomotives, boats, airplanes and
 - 24 federal vehicles
 - 25 -support improved control of evaporative emissions
- 26
- 27 ▪ The GCVTC promotes the following strategies on a regional level:
 - 28 -establish clean fuel demonstration zones
 - 29 -analyze pricing and incentive approaches
 - 30 -explore an inspection program for heavy-duty vehicles
 - 31 -promote vehicle maintenance
- 32
- 33 ▪ The GCVTC promotes the following initiatives on a local level:
 - 34 -promote incentives for innovative and effective approaches
 - 35 -encourage better integration of transportation, land use and air quality
 - 36 planning
 - 37 -establish mobile source emissions budgets for selected major urban areas
 - 38 -suggest retiring high-emitting vehicles

39

40 **(4) Area Sources-Dust from Paved & Unpaved Roads**

41 Take voluntary measures to control dust emissions

42

43 **(5) Fire Emissions**

- 44 ▪ Improve integrated assessment of emissions
 - 45 ▪ Develop cooperative funding mechanisms
 - 46 ▪ Promote public education programs
- 47

48 **(6) Clean Air Corridors**

49 (all recommendations are incorporated into the final RHR)

50

51 **(7) Emissions within and near Class 1 Areas**

1 Although the final RHR does not have a section dedicated to emissions within and near
2 Class 1 Areas, the GCVTC goals [\[ef\] to](#): a) Implement park and wilderness planning
3 processes, b) Develop strategies for nearby communities and activities, c) Apply existing
4 regulatory requirements, and d) Utilize other planning processes, are addressed at
5 various places in the final RHR.

6
7 **(8) Transboundary Emissions from Mexico**

- 8 ▪ Develop community mechanisms for cooperative transboundary planning
- 9 ▪ Finance air pollution control projects
- 10 ▪ Provide incentives for transboundary investment in pollution control

11
12
13
14 **G) (b) Implementation of Additional Recommendations:**

15
16 Based on the [AQCB's] Department's evaluation of the GCVTC recommendations, and the
17 fact that the WRAP has not modeled nor recommended any additional GCVTC
18 recommendations, it is [impracticable] impractical for the [AQCB] Department to include any
19 additional recommendations in this implementation plan. Though it will address all of the
20 requirements as delineated in the final RHR, ~~[at this time (in the 2003 SIP submittal)]~~, the
21 [AQCB] Department opts not to include any of the GCVTC's additional recommendations at
22 this time.

23
24
25 **~~[D)]~~ (c) Future Progress Reports:**

26
27 Pursuant to 40 CFR 51.309(d)(9), the [AQCB] Department shall prepare a progress report in
28 ~~[2008]~~, 2013, and 2018 that contains an evaluation in accordance with Sections ~~[B and C]~~ (a)
29 and (b) above. The copy of this report shall be provided to EPA and made available to the
30 general public.

31
32 **~~[XII.]~~ L. PERIODIC SIP REVISIONS**

33
34 **~~[A) Introduction & Requirements:]~~**

35
36 The [1999](#) Regional Haze Rule (RHR) requires states to submit progress reports in the form
37 of State Implementation Plan (SIP) revisions in 2008, 2013 and 2018. The SIP revisions
38 must comply with the procedural requirements of 40 CFR 51.102 for public hearings and
39 51.103 for submission of plans. Page 35755 of the Preamble to the RHR discusses the
40 requirements for periodic SIP revisions.

41
42 Unless a state chooses to address "other" Class I Areas (those within their own state) in their
43 2003 SIP, it will need to do so in approximately 2008, in accordance with 51.309(g). The SIP
44 revisions required under 309(d)(10) must therefore include assessments for Class I Areas
45 located within the state and for the Class I Areas outside the state that are affected by
46 emissions from the state. Note that EPA views these SIP revisions as a periodic check on
47 progress, rather than a thorough revision of regional strategies.

48 [However, because the time-clock for the State's first SIP revision was based on a Decemb](#)
49 [31, 2003 submittal deadline, and these submittals have been unavoidably delayed for four](#)
50 [years by litigation, the first revision to the 2007 SIP is not anticipated until 2012.](#)

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2 **~~[B]~~ (a) Periodic Progress Reports for Demonstrating Reasonable Progress:**

3
4 Pursuant to 40 CFR 51.309(d)(10)(i), the [AQCB] Department shall submit to EPA, as a SIP
5 revision, periodic progress reports for the years [2008], 2013, and 2018 for the purpose of
6 demonstrating reasonable progress in Class I Areas within Bernalillo County, and Class I
7 Areas outside Bernalillo County, that are affected by emissions from Bernalillo County. This
8 demonstration may be conducted by the WRAP, with assistance from the [Albuquerque-
9 Bernalillo County Air Quality Control Board AQCB] Department, and shall address the
10 elements listed under [40 CFR 51.309(d)(10)(i)(1) through (7)] 40 CFR 51.309(d)(10)(i)(A)
11 through (G), as summarized in (1) through (7) below:
12

- 13 (1) Implementation status of 2003 SIP measures;
- 14 (2) Summary of emissions reductions;
- 15 (3) Assessment of most/least impaired days;
- 16 (4) Analysis of emission reductions by pollutant;
- 17 (5) Significant changes in anthropogenic emissions;
- 18 (6) Assessment of 2003 SIP sufficiency; and
- 19 (7) Assessment of visibility monitoring strategy.

20
21
22 **~~C)~~ (b) Actions to be Taken Concurrent with Periodic Progress Reports.**

23
24 Pursuant to 40 CFR 51.309(d)(10)(ii), the [AQCB] Department shall take one of the following
25 actions based upon information contained in each periodic progress report:
26

- 27 (1) Provide a negative declaration statement to EPA saying that no implementation plan
28 revision is needed if reasonable progress is being made, in accordance with Section ~~[B]~~ (a)
29 above;
- 30
31 (2) If the [AQCB] Department finds that the implementation plan is inadequate to ensure
32 reasonable progress due to emissions from outside Bernalillo County, the [AQCB]
33 Department shall notify EPA and the other contributing state(s), and initiate efforts through a
34 regional planning process to address the emissions in question. The [AQCB] Department
35 shall identify in the next progress report the outcome of this regional planning effort, including
36 any additional strategies that were developed to address the implementation plan's
37 deficiencies;
- 38
39 (3) If the [AQCB] Department finds that the implementation plan is inadequate to ensure
40 reasonable progress due to emissions from another country, the [AQCB] Department shall
41 notify EPA and provide information on the impairment being caused by these emissions; or
42
- 43 (4) If the [AQCB] Department finds that the implementation plan is inadequate to ensure
44 reasonable progress due to emissions from within Bernalillo County, the [AQCB] Department
45 shall develop additional strategies to address the implementation plan deficiencies and
46 revise the implementation plan no later than one year from the date that the progress report
47 was due.

48
49 **~~[XIII.] J. STATE PLANNING AND INTERSTATE COORDINATION [& TRIBAL~~**
50 **~~IMPLEMENTATION~~**
51

1 **A) Introduction & Requirements:]**
2

3 ~~[Pages 35755-35756 of the Regional Haze Rule (RHR) Preamble discuss]~~ The requirements
4 for state planning and interstate coordination, and tribal implementation are discussed on
5 Pages 35755-35756 of the Regional Haze Rule (RHR) Preamble. Both sections
6 51.309(d)(11) & (12), allow states and tribes to use the work of regional planning bodies like
7 the Western Regional Air Partnership (WRAP) in their individual SIPs/TIPs.
8

9 Section 51.309(d)(11) allows states to participate in regional planning efforts, such as the
10 WRAP, in developing their 309 SIPs. The interstate strategies that are developed need to
11 document each state's contribution to visibility impairment in the 16 Class I Areas, how
12 coordination between state implementation plans will be accomplished, and how compliance
13 will be determined. It also allows states to develop their own programs without relying on a
14 regional entity such as the WRAP.
15

16 Section 51.309(d)(12) clarifies that all tribes within transport region have the option to
17 implement Section 309, not just those who were originally members of the GCVTC. The
18 Tribal Authority Rule (40 CFR Part 49) gives tribes in the transport region the option of
19 implementing 51.308 or 51.309.
20

21 **~~[B)]~~ (a) Participation in Regional Planning and Coordination:**

22 Pursuant to 40 CFR 51.309(d)(11), the ~~[Albuquerque-Bernalillo County Air Quality Control~~
23 ~~Board (AQCB)]~~ Department has participated in regional planning and coordination with other
24 states in developing its emission reduction strategies under 40 CFR 51.309, related to
25 protecting the 16 Class I Areas of the Colorado Plateau. This participation was through the
26 WRAP and with the State of New Mexico. The ~~[AQCB]~~ Department has not participated in
27 any regional planning outside of its participation with the WRAP. The ~~[AQCB]~~ Department
28 has worked with the WRAP to obtain guidance regarding technical information and county-
29 level data as necessary. In addition, the ~~[AQCB]~~ Department has participated in interstate
30 coordination efforts with the State of New Mexico.
31

32 **~~[C)]~~ (b) Tribal Implementation.**

33
34 Pursuant to 40 CFR 51.309(d)(12), and in accordance with the Tribal Authority Rule, no
35 Tribes whose lands extend into Bernalillo County have elected to develop a regional haze
36 TIP at this time to assure reasonable progress in the 16 Class I Areas of the Colorado
37 Plateau.
38

39 **~~[D)]~~ (c) Federal Implementation:**

40
41 Pursuant to 40 CFR 49.11(a), the Administrator under Sections 301(a) and 301(d)(4) shall
42 promulgate without unreasonable delay such federal implementation provisions as are
43 necessary or appropriate to protect air quality, consistent with the provisions of 304(a) and
44 301(d)(4), if a Tribe does not submit a TIP, meeting the completeness criteria of 40 CFR part
45 51, Appendix V, or does not receive EPA approval of a submitted TIP.
46

47 **~~[XIV.] K. GEOGRAPHIC ENHANCEMENT [& REASONABLY ATTRIBUTABLE VISIBILITY~~**
48 **~~IMPAIRMENT (RAVI)]~~**
49

50 **~~[A) Introduction & Requirements:]~~**
51

1 ~~Page 35757 in the Preamble to the Regional Haze Rule (RHR) discusses~~ The requirements
2 for geographic enhancement are discussed on page 35757 in the Preamble to the Regional
3 Haze Rule (RHR). These requirements are related to Section 51.309(f)(1), which describes
4 requirements for the Annex. The Annex allows states to submit a SIP, or tribes a TIP, which
5 adopts an alternative measure to regional haze Best Available Retrofit Technology (BART).
6

7 Geographic enhancement is a voluntary approach that can be included in the Annex for
8 addressing Reasonably Attributable Visibility Impairment (RAVI) for stationary sources, under
9 the provisions of Section 51.302(c). RAVI is different from regional haze in that it addresses
10 “hot spots” or situations where visibility impairment in a Class I Area is reasonably
11 attributable to a single source or small group of sources in relatively close proximity to the
12 Class I Area. The geographic enhancement approach would allow states or tribes to use the
13 efficiencies and reduced cost provided by the market trading program in the Annex to
14 accommodate situations where RAVI needs to be addressed.
15

16 **B) (a) Procedure for addressing Reasonably Attributable Visibility Impairment (RAVI)**
17 **under the Regional Haze Rule:**
18

19 Pursuant to 40 CFR 51.309(f)(4), the ~~[Albuquerque-Bernalillo County Air Quality Control~~
20 ~~Board (AQCB)]~~ Department shall use the following process to address reasonably
21 attributable visibility impairment (RAVI) in any Class I Area, and the potential need for BART,
22 as specified in 40 CFR § 302(c):
23

24 **(1)** The ~~[AQCB]~~ Department and applicable Federal Land Managers (FLMs) have agreed
25 ~~[on]~~ upon the principles that will be followed for addressing RAVI within the context of
26 regional SO₂ milestones and a backstop emission trading program that have been developed
27 to address regional haze. These principles are outlined in a draft template Memorandum of
28 Agreement (MOA) that the WRAP Market Trading Forum (MTF) produced. The use of this
29 template MOA is optional.
30

31 ~~[(2)]~~ The FLMs have an obligation to protect the National Parks and Wilderness Areas that
32 have been designated as mandatory federal Class I Areas. The MOA does not restrict ~~[the]~~
33 their authority ~~[of the FLMs]~~ to fulfill this obligation. In the course of certifying impairment, the
34 FLMs may make recommendations to the ~~[AQCB]~~ Department regarding a source or sources
35 to which impairment may be reasonably attributable. Within the context of established
36 regional milestones for SO₂ and a backstop trading program, the FLMs agree to use the
37 following screening process in making these recommendations as part of the certification
38 process:
39

40 **(i)** The applicable Federal Land Management Agency determines that sulfate
41 concentrations are not decreasing since the year 2000, based on ambient monitoring,
42 and
43

44 **(ii)** There are BART-eligible sources of SO₂ within 100 miles of the mandatory
45 Federal Class I Area, and
46

47 **(iii)** The BART-eligible sources have not installed control technology to reduce
48 SO₂ emissions at a rate equivalent to capture of 85% of potential annual emissions.
49

50 ~~[(3) In approximately]~~ **(2)** Sometime during the 2009 to 2010 timeframe, but no later than
51 December 2010, the AQCB ~~[will]~~ shall conduct a public meeting to facilitate the exchange of

1 information regarding current visibility monitoring data at Class I Areas in ~~[Bernalillo County]~~
2 New Mexico or in nearby states within 100 miles of any BART-eligible sources located in
3 Bernalillo County. The purpose of the meeting will be to provide as much information as
4 possible to all interested parties about the potential for a certification of visibility impairment
5 to occur, based on the screening criteria in the MOA. The information will include visibility
6 trends, as well as the type of impairment that is occurring at individual areas (haze, episodic
7 impairment, etc.). The goal of this meeting is to provide information to sources and to the
8 market so that potential problems could be addressed in the most cost-effective manner. For
9 example, a large utility company with multiple units may use this information in decisions
10 about where to apply limited resources when ~~[deciding]~~ developing plans to install new
11 control technology on some of its plants.

12
13
14 **[C) Attribution Determinations:]**

15
16 **(3)** If a Federal Land Manager (FLM) certifies (visibility) impairment, the ~~[Albuquerque-~~
17 ~~Bernalillo County Air Quality Control Board (AQCB)]~~ Department will fulfill its obligation to
18 determine attribution and if necessary determine BART for the applicable source or group of
19 sources.

20
21 ~~[(4)]~~ **(i)** The WESTAR report entitled *Recommendations for Making Attribution*
22 *Determinations in the Context of Reasonably Attributable BART* (May 2003), supplemented
23 by new techniques and information available at the time of review, will be used to provide a
24 toolbox of appropriate technical criteria and methods for determining attribution. The
25 WESTAR report is included in Appendix P-O of this implementation plan.

26
27 ~~[(2)]~~ **(ii)** If attribution is determined, then the following alternative remedy solutions will be
28 considered when determining BART for the applicable source:

29
30 ~~[(a)]~~ **(A)** BART-level controls could be installed on the attributed source or group of sources;

31
32 ~~[(b)]~~ **(B)** SO₂ emission reductions that may be more cost-effective or have other air quality
33 benefits could be required at nearby sources in lieu of, or in combination with, controlling the
34 attributed source to achieve greater visibility improvements than the application of BART.

35
36
37 ~~[XV. REASONABLE]~~ **L. REASONABLE PROGRESS FOR ADDITIONAL CLASS 1**
38 **AREAS**

39
40 **[A) Introduction & Requirements:]**

41
42 The requirements for reasonable progress for additional Class I Areas are discussed on
43 page 35758 in the Preamble to the Regional Haze Rule (RHR). Section 309 of the final
44 RHR requires that the first SIP (due December 2003) address the 16 Class I Areas of the
45 Colorado Plateau. The Albuquerque-Bernalillo County Air Quality Control Board (AQCB) ~~is~~
46 ~~[meeting]~~ has met this requirement by addressing the 16 Class I Areas of the Colorado
47 Plateau in Chapter IV A. ("Projection of Visibility Improvement") of this Implementation plan.

48
49 The term "other Class I Areas" refers to federal Class I Areas that are NOT located in the
50 Colorado Plateau region. Other Class I Areas within the nine transport region states do not
51 need to be addressed until the ~~[2008 SIP submittal]~~ SIP revision, originally scheduled for

1 2008. However litigation has delayed submittal of 309 SIPs until 12/17/07. Therefore, the
2 next SIP revision is not anticipated until ~~2011~~ 2012. The only requirement in section
3 51.309(g) for states that follow this timetable is under (g)(1), which requires a declaration in
4 this Implementation plan indicating if the other Class I Areas in the state are going to be
5 addressed under Section 308 or 309.

6
7 The rest of section 51.309(g) describes the requirements for addressing other Class I Areas
8 in the 2008 SIP. These will not be addressed until ~~2011~~ 2012. This modeling demonstration
9 must include an analysis sufficient to meet the requirements defined in 51.308(d)(1). The
10 state may elect to use the control package adopted for the 16 Class I Areas on the Colorado
11 Plateau if it can demonstrate that BART or better reductions will be met through 2018. The
12 state may elect to select alternative controls to complete the 309 package and adopt that
13 package. Also, states [~~have~~] had the option to address both the 16 Class I Areas on the
14 Colorado Plateau and the other Class I Areas in 2003 and combine them both into one SIP.

15
16 **~~[B]~~ (a) Declaration for Other Class I Areas – Albuquerque / Bernalillo County:**

17
18 As mentioned, pursuant to 40 CFR 51.309(g)(1), an area must declare if it will follow Section
19 308 or Section 309 to address the other (non-Colorado Plateau) Class I Areas in the nine
20 transport region states in its 2008 SIP submittal. In 2003, the AQCB [~~declares~~] declared that
21 it [~~will~~] would not develop an implementation plan revision by December 31, 2008 for any
22 other Class I Areas. This ~~is~~ {Stet.} because no other Class I Areas [~~exist~~] existed within the
23 jurisdiction of the AQCB.

24
25
26 **~~C) Federal Class I Areas in the State of New Mexico:~~**

27
28 [However,] A total of nine federal Class I Areas are located in the State of New Mexico.
29 [~~One~~], The San Pedro Parks Wilderness Area, is defined in 40 CFR 51.309(b)(1) as one of
30 the 16 Federal Class I Areas on the Colorado Plateau (see Chapter IV A of this
31 Implementation plan). San Pedro Parks and the eight other federal Class I Areas in New
32 Mexico are located in counties other than Bernalillo (see Table 20 on the following page).
33 Since the AQCB's jurisdiction for air quality planning purposes is limited to Bernalillo County
34 only, the AQCB does not have jurisdiction over any of the federal Class I Areas in New
35 Mexico for air quality planning purposes. Such jurisdiction corresponds to the State of New
36 Mexico Environment Department.

Table 21: All Federal Class I Areas in New Mexico

Name	Location	
Bandelier Wilderness	Sandoval County	3
Bosque del Apache Wilderness	Socorro County	4
Carlsbad Caverns National Park	Eddy County	5
Gila Wilderness	Catron County	6
Pecos Wilderness	Mora County	7
Salt Creek Wilderness	Chaves County	8
Wheeler Peak Wilderness	Taos County	9
White Mountain Wilderness	Lincoln County	10
San Pedro Parks Wilderness Area*	Rio Arriba County	11
		12
		13

*The San Pedro Parks Wilderness Area is one of the 16 federal Class I Areas on the Colorado Plateau. The other areas are not thus classified.

~~[(C) Declaration for Other Class I Areas-State of New Mexico:]~~

Pursuant to 40 CFR 51.309(g)(1), the State of New Mexico ~~[declares]~~ declared that it will follow Section 309(g)(2) in developing an implementation plan for the eight federal Class I Areas in the State of New Mexico that are not on the Colorado Plateau, to be submitted by December 31, 2008. Table ~~[49]~~ 21 above lists all federal Class I Areas (Colorado plateau and non-Colorado plateau) in New Mexico.

For its 2003 SIP submittal, the State of New Mexico ~~[is including]~~ included only the 16 federal Class I Areas on the Colorado Plateau; one of which happens to be located in New Mexico and ~~[is not including]~~ did not include any additional Class I Areas located in the state, the Colorado Plateau or outside of the Colorado Plateau.

~~[(D)] (b) Other Class I Areas to be Included in the [2003] 2007 SIP Submittal:~~

The Albuquerque-Bernalillo County Air Quality Control Board (AQCB) ~~[is]~~ did not ~~[including]~~ include any additional federal Class I Areas, located on the Colorado Plateau or outside of it, in its 2003 2007 SIP submittal. The AQCB ~~[opts]~~ opted not to follow 40 CFR 51.309(g)(4), which ~~[allows]~~ allowed states to incorporate reasonable progress goals for additional Class I Areas into their SIPs ~~[now]~~ in 2003. Consistent with the State of New Mexico’s approach ~~[(see Section C above)]~~, only the 16 Class I Areas on the Colorado Plateau ~~[are]~~ [included] were addressed in Bernalillo County’s 2003 2007 SIP submittal.

~~[XVI. COMPLIANCE / CONCLUSION~~

~~This report entitled Section 309 Regional Haze State Implementation Plan (SIP) Element demonstrates how the Albuquerque-Bernalillo County Air Quality Control Board (AQCB) will meet the requirements of the final Regional Haze Rule (RHR), found in Section 309 of Title 40 of the Code of Federal Regulations (40 CFR 51.309).~~

~~This report also presents technical evidence to support the AQCB’s approval of this report as the 309 Regional Haze State Implementation Plan (SIP) element for Bernalillo County, New Mexico. In addition to this document, two regulations support Bernalillo County’s regional~~

1 haze program. 20.11.21 NMAC *Open Burning* addresses RHR requirements regarding fire
2 and smoke management practices. 20.11.46 NMAC, *Western Backstop Sulfur Dioxide (SO₂)*
3 *Trading Program*, addresses RHR requirements with respect to regional trading of SO₂
4 emissions from stationary sources.

5
6 In conclusion, the AQCB has developed its program to address regional haze and believes
7 that it is in compliance with the requirements of the final RHR.]

8
9 The impact on other Class I Areas has been modeled by the WRAP on a regional scale, with
10 resolution down to the level of a state. However the County-level impact has not yet been
11 modeled. Therefore, the Department will not analyze the impact of emissions from Bernalillo
12 County on other Class I Areas in this 2007 SIP submittal. However, the Department does
13 commit to work with the WRAP to determine this impact and submit its analysis by
14 12/31/~~2011~~ 2012

[ALL TEXT THAT FOLLOWS IS NEW]

M. BEST AVAILABLE RETROFIT TECHNOLOGY (BART) EVALUATION

Best Available Retrofit Technology – BART (Excerpted From *Identification of BART-Eligible Sources in the WRAP Region*, Draft Report, for WRAP by ERG, # 30204-84, April 4, 2004- see Appendix [~~2007-2~~ 2007-F])

Background:

In July 1999, EPA published a final rule under the authority and requirements of sections 169A and 169 B of the Clean Air Act (CAA). The rule addresses regional haze and requires states to improve visibility in 156 natural areas encompassing federally-protected parks and wilderness; these areas are referred to as “Class I areas”.

The particular air pollutants that reduce visibility and contribute to regional haze are fine particulate matter (PM_{2.5}), and certain compounds which play a part ~~to~~ in PM_{2.5} formation such as nitrogen oxides (NO_x), sulfur dioxide (SO₂), and certain volatile organic compounds (VOC). The CAA requires certain existing sources to control these air pollutants in Class I areas by installing best available retrofit technology, also known as BART.

However, on May 24, 2002, the U.S. Court of Appeals for the District of Columbia Circuit issued a ruling vacating the BART provisions to the regional haze rule. Furthermore, prior to the court’s decision, EPA had proposed BART guidelines intended to clarify the requirements of the BART provisions, yet these guidelines were remanded during the court’s ruling on May 24, 2002. On April 15, 2004, the EPA proposed amendments to its July 1999 regional haze rule, predominantly; these amendments address the BART provisions and clarify previously submitted comments made during the July 1999 proposal by environmental groups, industry, and the public. The BART provisions are located in 40 CFR 51.308. In addition, EPA repropose the BART guidelines which are contained in a new Appendix Y to 40 CFR 51.

The new BART proposal requires all states to develop regional haze implementation plans known as “SIPs” by December 17, 2007. These plans should contain enforceable measures and strategies for reducing visibility-impairing pollution in Class I areas. The SIP must also include a determination of BART for each BART-eligible source. Accordingly, states must first identify sources that will have to install BART controls. This section is intended to discuss the steps for determining BART-eligible sources; in addition, changes and/or clarifications from the April 15, 2004 proposed amendments are discussed in further detail below.

Identifying BART-eligible Sources:

The regional haze rule, in 40 CFR 51.301, defines a stationary source as a “building, structure, facility, or installation which emits or may emit any air pollutant.” The rule further defines “building, structure, or facility” as:

- All of the pollutant-emitting activities which belong to the same industrial grouping (same 2-digit Standard Industrial Classification [SIC] code); and
- Are located on one or more contiguous or adjacent properties; and
- Are under the control of the same person (or persons under common control).

1
2 The CAA uses the term “major stationary source” to describe those sources that are the
3 focus of the BART requirement. To avoid confusion with other CAA requirements which also
4 use the term “major stationary source” when referring to a somewhat different population of
5 sources, the RHR uses the term “BART-eligible source”.

6
7 Sources that are BART-eligible must meet the following three criteria:

- 8
9 1. The source must be a stationary source of air pollutants that falls within one of 26 listed
10 categories (see Table A-1);
11 2. The source must have been put into operation between August 7, 1962 and August 7,
12 1977; and
13 3. The source must have the potential to emit 250 tons per year of any [air] individual air
14 pollutant (SO₂, NO_x, PM_{2.5}, VOC, or NH₃††

Step 1	Identify the emission units in the BART categories (See Table A-1)
Step 2	Identify the start-up dates of those emission units
Step 3	Compare the potential emissions from units identified in Steps 1 and 2 to the 250 ton per year cutoff
Step 4	Identify the emission units and pollutants that constitute the BART-eligible source

15
16
17
18 **Clarification To Each Step:**

19
20 ***Step 1 - Identify the emission units in the BART categories***

21
22 The CAA uses the 26 source category titles, which can be found in Table A-1, to describe the
23 types of stationary sources that are BART-eligible. Most of the source category titles are
24 general descriptors that are inclusive of all the operations at a given plant. However, certain
25 plant sites may have only some emission units meeting one of these 26 descriptions; not
26 every emission unit at a particular site will meet one of the 26 categories. States should
27 identify all emission units at a plant site meeting one or more of the source category
28 descriptions.

†† EPA originally proposed to include ammonia (NH₃) on the visibility-impairing pollutant list however based on comments received and the current state of knowledge regarding the role of ammonia in PM_{2.5} formation and the affects of regional haze that would be expected from reductions in ammonia emissions, EPA no longer believes that ammonia should be included on this list. In the April 15, 2004 proposed amendments, EPA has taken ammonia (NH₃) off of the visibility-impairing pollutant list.

1 Source Category	EPA Clarification
<p>Fossil-fuel fired steam electric plants of more than 250 million British thermal units (BTU) per hour heat input (#1 in Table A-1)</p>	<p>1. The source category interpretation of the word “plants” is best read to aggregate boiler capacities to determine if the 250 million BTU/hr threshold is reached.</p> <p>For this category, states do aggregate all boilers to verify if all site boilers that were put in place within the 1962-1977 time period total up to greater than 250 million BTU/hr.</p> <p>2. EPA clarifies that the definition of “steam electric plants of more than 250 million BTU/hr heat input” refers only to plants that generate electricity for sale.</p> <p>3. “Fossil-fuel boilers” refers to boilers burning greater than 50 percent fossil fuels.</p> <p>4. Enforceable operational limits for a multi-fuel boiler would be relevant to determining whether its “fossil fuel” capacity exceeds 250 million BTU/hr and that it would be reasonable for states to take such limitations into account.</p> <p>An example of this situation would be a boiler that has a rated heat input capacity of 500 million BTU/hr, yet is limited to a heat input of 150 million BTU/hr in the Title V permit. This particular boiler would not be considered (alone) to fall into this category because the boiler is not operating above 250 million BTU/hr due to the enforceable limit. However, the boiler could fall into this category when aggregating to verify if all site boilers (that were put into place within the 1962-1977 time period) total up to greater than 250 million BTU/hr. In such a case, the state would still use the enforceable heat input limit of 150 million BTU/hr when aggregating all boilers.</p>
<p>Phosphate rock and processing plants (#13 in Table A-1)</p>	<p>This source category should be interpreted broadly to include all types of phosphate rock processing facilities, including elemental phosphorous plants as well as fertilizer production plants.</p>
<p>Secondary metal production facilities (#20 in Table A-1)</p>	<p>When identifying unique “secondary metal production facilities” that are not in any other BART category, states may identify those unique facilities based upon SIC code 3341 to determine if the facility falls under the source category “secondary metal production facilities”.</p> <p>However, for informational purposes only, this source category “secondary metal production facilities” is actually broader than SIC code 3341. Yet, many “secondary metal production facilities” that do not fall under SIC code 3341 would fall into another source category. For instance, the secondary ferrous metals facilities such as secondary iron and steel facilities are not included under SIC code 3341, but these facilities are included under another source category “iron and steel mill plants”.</p>
<p>Chemical process plants (#21 in Table A-1)</p>	<p>This source category should be interpreted to include all facilities within 2-digit SIC code 28. Accordingly, this source category includes pharmaceutical manufacturing facilities.</p>

Source Category	EPA Clarification
<p>Fossil-fuel boilers of more than 250 million BTU/hr heat input (#22 in Table A-1)</p>	<p>1. The source category interpretation is best read to include only those boilers at a power plant individually greater than 250 million BTU/hr. For this category, states do not aggregate all boilers to verify if all site boilers that were put in place within the 1962-1977 time period total up to greater than 250 million BTU/hr.</p> <p>2. “Fossil-fuel boilers” refers to boilers burning greater than 50 percent fossil fuels.</p> <p>3. Enforceable operational limits for a multi-fuel boiler would be relevant to determining whether its “fossil fuel” capacity exceeds 250 million BTU/hr and that it would be reasonable for States to take such limitations into account.</p> <p>An example of this situation would be a boiler that has a rated heat input capacity of 500 million BTU/hr, yet it is limited to a heat input of 150 million BTU/hr in the Title V permit. This particular boiler would not be considered under this category because the boiler is not operating above 250 million BTU/hr due to the enforceable limit. However, the boiler could be subject to BART if it was part of a process description at a plant that is in a different source category, for example, the boiler was considered to be part of the source category “chemical process plant” and fell under SIC code 28.</p>
<p>Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels (#23 in Table A-1)</p>	<p>1. The 300,000 barrel cutoff refers to total, facility-wide tank capacity for tanks that were put in place within the 1962-1977 time period, and includes gasoline and other petroleum-derived liquids.</p> <p>2. EPA states that there was a comment made about this source category, however EPA does not say what the actual comment was.</p> <p>EPA states that the comment “is largely moot given that these storage and transfer facilities are already subject to maximum achievable control technology (MACT) standards and in many cases stringent SIP regulations related to ozone nonattainment. Regardless of the interpretation [of this source category], we [EPA] believe that it is unlikely that BART emissions limitations will require further controls.”</p>
<p>Charcoal production facilities (#26 in Table A-1)</p>	<p>This source category should be interpreted to include charcoal briquette manufacturing and activated carbon production.</p>

1
2
3
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7

Step 2 - Identify the start-up dates of those emission units

States should identify all emission units within the listed categories as determined in Step 1, which meet the following two criteria listed in the table below:

Criteria	Clarification
Did the unit begin operation after August 7, 1962?	“In operation” is defined as “engaged in activity related to the primary design function of the source.” This means that a source must have begun actual operations by August 7, 1962 to satisfy this test.
Was the unit “in existence” on August 7, 1977?	<p><i>On or prior to August 7, 1977:</i> “the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (1) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (2) entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.” 40 CFR 51.301.</p> <p>As this definition is essentially identical to the definition of “commence construction” as that term is used in the PSD regulations, the two terms mean the same thing. See 40 CFR 51.165(a)(1)(xvi) and 40 CFR 52.21(b)(9). Under this definition, an emissions unit could be “in existence” even if it did not begin operating until several years after 1977.</p>

Be aware that a reconstructed source may be BART-eligible. A reconstructed source is an existing source that is completely or substantially rebuilt such that “the fixed capital cost of the new component exceeds 50 percent of the fixed capital cost of a comparable entirely new source.” A reconstructed source could actually be a BART-eligible source if it was in operation before August 7, 1962, however it would have to have been reconstructed during the August 1962 to August 7, 1977 time period. {40 CFR 51.301}

An important clarification: under Step 2 for identifying BART-eligible units, and using boilers as the example emission unit, states should identify only those boilers that were put in place (or reconstructed) within the 1962 – 1977 time period. Only these boilers are carried over to Step 3, and only these boilers would be subject to a BART engineering analysis. This is true for any emission unit.

1 **Step 3 - Compare the potential emissions from units identified in Steps 1 and 2 to the**
2 **250 ton per year cutoff**

3
4 The “potential to emit” means the maximum capacity of a stationary source to emit a
5 pollutant under its physical and operational design. Any physical or operational limitations on
6 the capacity of the source to emit a pollutant including air pollution control equipment and
7 restrictions on hours of operation or on the type or amount of material combusted, stored, or
8 processes, shall be treated as part of its design if the limitation or the effect it would have on
9 emissions is federally enforceable. Secondary emissions do not count in determining the
10 potential to emit of a stationary source.

11
12 To be a BART-eligible source, the source must have emission units that meet the category
13 description and time window criteria described in Steps 1 and 2 above, and it must have the
14 potential to emit 250 tons or more of any of the following pollutants: SO₂, NO_x, particulate
15 matter, or VOC.

16
17 When calculating potential to emit and for the purposes of the regional haze rule, states must
18 group emissions from all emission units put in place between the 1962-1977 time period that
19 are within the same 2-digit SIC code, even if those emission units are in different BART
20 source categories.

21
22 However, be aware of “support facilities” when grouping pollutant-emitting activities by 2-digit
23 category according to the SIC manual. Some emission units, for purposes of other air
24 programs, might be considered subject to an air program even if the unit(s) serves as a
25 “support facility”. A “support facility” is a facility that conveys, stores, or otherwise assists in
26 the production of the principle product and falls within the same industrial grouping as the
27 primary facility. However, an emission unit, even if it is a “support facility” for purposes of
28 other air programs, would not be considered for BART-eligibility unless the unit fell within one
29 of the 26 listed source categories, and unless it was put in place within the 1962 to 1977 time
30 period.

31
32 *An important note for PM_{2.5}:*

33
34 States may use PM₁₀ as the indicator for particulate matter. Emissions of PM₁₀ included the
35 components of PM_{2.5} as a subset. There is no need to have separate 250 ton thresholds for
36 PM₁₀ and PM_{2.5}, because 250 tons of PM₁₀ represents at most 250 tons of PM_{2.5}, and at
37 most 250 tons of individual particulate species such as elemental carbon, crustal material,
38 etc.

39
40 *An important note for VOCs*

41
42 Because many industrial sources and most mobile sources of organic gases have been
43 subjected to VOC control requirements that have the effect of reducing emissions of the
44 particular compounds that are PM_{2.5} precursors, EPA is requesting comment on whether the
45 states should focus greater control requirements on VOC emissions from BART sources
46 located in urban areas. EPA also is requesting comment on the circumstances under which,
47 in rural areas, for sources subject to BART, states may determine that BART would be no
48 control for VOC.

49
50 *An important note for ammonia:*

1 . Because of the uncertainties in assessing the impact of ammonia emissions reduction on
 2 visibility, and because PM2.5 will decrease due to SO2 and NOx controls, EPA proposed not
 3 to include ammonia on the pollutant list at this time.

4
 5 **Step 4 - Identify the emission units and pollutants that constitute the BART-eligible**
 6 **source**

7
 8 The final step in the identification of BART-eligible sources would be to use the result from
 9 the previous three steps to identify the equipment that is BART-eligible. If the total allowable
 10 emissions from the stationary source exceed a potential to emit of 250 tons per year for any
 11 individual pollutant listed in Step 3, then that collection of emission units is a BART-eligible
 12 source. Once this BART-eligible source is determined, states must determine the
 13 appropriate level of BART control for each source subject to BART. The table below provides
 14 examples for determining a BART-eligible source:

Example	Would BART be required?
A source has two emission units having cumulative emissions exceeding 250 tons for SO ₂ , but not for NO _x and PM _{2.5} .	Yes, BART would be required for all three pollutants.
A source has potential emissions that are less than 250 tons for each individual pollutant, but more than 250 tons from the sum over all pollutants.	No, BART would not be required for any of the pollutants.
A source has potential emissions of 500 tons per year of SO ₂ , and potential emissions of 1 ton per year of PM _{2.5} .	Yes, BART would be required for SO ₂ , however, BART may or may not be required for PM _{2.5} depending on whether the state has implemented a <i>de minimis</i> level for PM _{2.5} .

15
 16 *An important clarification for de minimis levels:*

17
 18 Some BART-eligible sources emit individual pollutants listed in Step 3 at levels that would
 19 make a very small contribution to regional haze. A 1 ton per year amount from a given
 20 BART-eligible source would likely represent a *de minimis* fraction of a total regional
 21 inventory. Therefore, EPA is proposing in the April 15, 2004 amendments that states should
 22 be allowed the flexibility to identify de minimis levels of pollutants at BART eligible sources.
 23 However, any de minimis values adopted by a state, shall not be higher than PSD levels: 40
 24 tons per year of SO₂, NO_x, and VOC, and 15 tons per year for PM₁₀.

25
 26 **Identifying Which BART-eligible Sources Are Subject to BART:**

27
 28 Once the four steps above are completed, the state should have a list of BART-eligible
 29 sources. The state must then determine which of the BART-eligible sources may “emit any
 30 air pollutant which may reasonably be anticipated to cause or contribute to any impairment of
 31 visibility in any [Class I] area.”

1
2

Table A-1. Source Categories Subject to BART Requirements

BART Category ID #	Category (BART)	SCC	SIC
1	Fossil fuel-fired steam electric plants > 250 MM BTU per hour	101xxxxx	4911
2	Coal cleaning plants (thermal dryers)	305010xx	1100, 2999
3	Kraft pulp mills	307001xx	2611, 2621, 2631
4	Portland cement plants	305006xx, 305007xx	3241
5	Primary zinc smelters	30303002	33xx, 3339
6	Iron and steel mill plants	303015xx	3312, 332x
7	Primary aluminum ore reduction plants	303001xx	3334
8	Primary copper smelters	303005xx	3331
9	Municipal incinerators capable of charging > 250 tons of refuse per day	501001xx, 502005xx	4953
10	Hydrofluoric, sulfuric, and nitric acid plants	301070xx	2819, 2899
11	Petroleum refineries	306xxxxx	2911
12	Lime plants	305016xx	3274
13	Phosphate rock processing plants	305019xx	1429, 1475
14	Coke oven batteries	303003xx, 303004xx	3312
15	Sulfur recovery plants	30603301, 31000208	2819
16	Carbon black plants (furnace process)	30100509, 30100503	2895
17	Primary lead smelters	303010xx	3339
18	Fuel conversion plants	n/a	n/a
19	Sintering plants	n/a	n/a
20	Secondary metal production facilities	304xxxxx	3341, 334x
21	Chemical process plants	301xxxxx	2899, 28xx
22	Fossil fuel-fired boilers > 250 MM BTU per hour	102001xx through 102007 103001xx through 103007	n/a
23	Petroleum storage and transfer facilities with a capacity > 300,000 barrels	306xxxxx	5171
24	Taconite ore processing plants	303023xx	1011, 3295
25	Glass fiber processing plants	305012xx	32xx
26	Charcoal production facilities	301006xx	2819, 2861

3
4

1 **EXAMPLES OF BART CATEGORIES FOUND IN BERNALILLO COUNTY**

2
3 **'BART 01' – Fossil Fuel-Fired Steam Electric Plants with Total Heat Capacity Greater**
4 **than 250 million Btu per hour**

5
6
7 A fossil fuel-fired steam electric plant often includes a steam turbine and electric generator.
8 Steam is used to drive the steam turbine which in turn drives an electric generator. The
9 steam is created by either boilers and/or through a combined cycle turbine. The U.S. EPA
10 proposed BART guidelines clarify that this source category “fossil fuel-fired steam electric
11 plants” includes both boilers and combined cycle turbines.
12

13 A combined cycle turbine consists of a gas turbine and a heat recovery steam generator
14 (HRSG). The gas turbine creates electricity. Hot exhaust gases from the gas turbine are
15 routed through a HRSG to generate steam. The steam created is used to drive a steam
16 turbine which also drives an electric generator. A supplementary gas-fired burner, duct
17 burner, or boiler can be used to increase the steam production by the HRSG.
18

19 When examining whether the source meets the 250 million Btu per hour (MMBtu/hr) criteria,
20 the U.S. EPA proposed BART guidelines state that the aggregate of all heat input to the
21 “plant” should be totaled. This would include the heat input of the combined-cycle turbine as
22 well as any boiler or dust burner. In a letter dated September 30, 1987. U.S. EPA
23 addressed the PSD source category “Fossil Fuel-fired Steam Electric Plants.” The U.S. EPA
24 states that the term “plant” is inclusive of all heat generating equipment. A restrictive
25 definition was not used in this case but the broad word “plant” was used, and, therefore, it is
26 appropriate to include all heat generating equipment in determining the applicability for the
27 fossil fuel-fired steam electric plants.
28

29 If a plant makes electricity only for its own use it should not be considered in this category. A
30 steam electric plant must sell electricity. However, this type of plant may be considered a
31 BART-22 source category if it has boilers greater than 250 MMBtu/hr. Enforceable
32 operational limits should be taken into account when determining whether a boiler’s “fossil
33 fuel” capacity exceeds 250 MMBtu/hr. Also to be considered a fossil fuel-fired combustor, a
34 given unit must burn at least 50 percent fossil fuel.
35

36 A New Source Performance Standard (NSPS) for fossil-fuel-fired steam generators (40 CFR
37 60, Subpart D) regulates fossil-fuel-fired steam generating units that commenced
38 construction or modification after August 17, 1971 and has a heat input rate of 250 MMBtu/hr
39 or greater. Fossil-fuel-fired steam generating units of more than 250 MMBtu/hr heat input
40 which commenced construction or modification after September 18, 1978 are subject to 40
41 CFR 60, Subpart Da. Any unit covered under 40 CFR 60, Subpart Da is not regulated by 40
42 CFR 60, Subpart D. Additionally, Subpart Da includes provisions for electric utility combined
43 cycle gas turbines that are capable of combusting more than 250 MMBtu/hr heat input of
44 fossil-fuel in the steam generator. However, only emissions resulting from combustion of
45 fuels in the steam generating unit are subject to 40 CFR 60, Subpart Da. Gas turbines that
46 commenced construction, modification, or reconstruction after October 3, 1977, with a heat
47 input at peak load equal to or greater than 10 MMBtu/hr, are subject to Standards of
48 Performance for Stationary Gas Turbines (40 CFR 60, Subpart GG). The combustion turbine
49 portion of any stationary combined cycle steam/electric generating system is regulated by the
50 National Emission Standards for Hazardous Air Pollutants for Stationary Combustion

1 Turbines (40 CFR 63, Subpart YYYY). These regulations are mentioned for information only
2 and are not pertinent to determining BART-eligibility.

3
4
5 **4.0 BART 04 – Portland Cement Plants**

6
7 Portland cement is a fine powder, gray or white in color, which consists of a mixture of
8 hydraulic cement materials comprising primarily calcium silicates, aluminates and
9 aluminoferrites. More than 30 raw materials are known to be used in the manufacture of
10 Portland cement. These materials are chemically combined through pyroprocessing and
11 subjected to subsequent mechanical processing operations to form gray and white Portland
12 cement. The process can be divided into the following components: raw materials
13 acquisition and handling, kiln feed preparation, pyroprocessing, and finished cement
14 grinding. The heart of the Portland cement manufacturing process is the pyroprocessing
15 system. This system transforms the raw mix into clinkers, which are gray, glass-hard,
16 spherically shaped nodules. The pyroprocessing takes place in kilns.

17
18 Portland cement plants which commenced construction or modification after August 17, 1971
19 are regulated by the New Source Performance Standard (NSPS), Standards of Performance
20 for Portland Cement Plants (40 CFR 60, Subpart F). This regulation is applicable to the kiln,
21 clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker
22 storage, finished product storage, conveyor transfer points, bagging and bulk loading and
23 uploading systems. Portland cement plants may also be subject to the National Emission
24 Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (40
25 CRF 63, Subpart LLL). These regulations are mentioned for information only and are not
26 required to determine BART-eligibility.

27
28
29 **BART-ELIGIBLE SOURCES IN BERNALILLO COUNTY**

30
31 The WRAP identified three potential BART-eligible sources in Bernalillo County. These
32 were: PNM Reeves Generating Station, GCC Rio Grande Inc, and Cobisa Person Power
33 Project. After analysis by the Department, all three sources were determined to be NOT
34 BART-eligible. (See BART [\[matrix\] determination](#) below)

35
36 ~~[BART Matrix in separate file attached manually]~~

1 **PNM Reeves**

2
3 **Figure 1. How to determine whether a source is BART-eligible:**

4
5 Step 1: Identify emission units in the BART categories Does the plant contain emissions
6 units in one or more of the 26 source categories?

7 No → Stop

8 Yes → Proceed to Step 2

9 **YES. Units 1, 2, & 3**

10
11 Step 2: Identify the start-up dates of these emission units Do any of these emissions units meet the
12 following two tests?

13
14 In existence on August 7, 1977 AND
15 Began operation after August 7, 1962

16
17 → No → Stop

18 → Yes → Proceed to Step 3

19 **No.**

20
21
22 Step 3: Compare the potential emissions from these emission units to the 250 ton/yr cutoff
23 Identify the “stationary source” that includes the emission units you identified in Step 2. Add
24 the current potential emissions from all the emission units identified in Steps 1 and 2 that
25 are included within the “stationary source” boundary. Are the potential emissions from these
26 units 250 tons per year or more for any visibility-impairing pollutant?

27 No → Stop

28 Yes → These emissions units comprise the “BART-eligible source.”

29
30
31 2) If any of these facilities (even the non-BART eligible ones) have implemented controls since 2004 to
32 the present, please record that as well.

1
2 **Delta Person Generating Station**

3
4 **Figure 1. How to determine whether a source is BART-eligible:**

5
6 Step 1: Identify emission units in the BART categories Does the plant contain emissions
7 units in one or more of the 26 source categories?

8 No → Stop

9 Yes → Proceed to Step 2

10 **No. Unit 1 does not fit into any of the source categories because it is a simple cycle**
11 **gas turbine.**

12
13 Step 2: Identify the start-up dates of these emission units Do any of these emissions units meet the
14 following two tests?

15
16 In existence on August 7, 1977 AND
17 Began operation after August 7, 1962

18
19 → No → Stop

20 → Yes → Proceed to Step 3

21
22
23 Step 3: Compare the potential emissions from these emission units to the 250 ton/yr cutoff
24 Identify the “stationary source” that includes the emission units you identified in Step 2. Add
25 the current potential emissions from all the emission units identified in Steps 1 and 2 that
26 are included within the “stationary source” boundary. Are the potential emissions from these
27 units 250 tons per year or more for any visibility-impairing pollutant?

28 No → Stop

29 Yes → These emissions units comprise the “BART-eligible source.”

30
31 2) If any of these facilities (even the non-BART eligible ones) have implemented controls since 2004 to
32 the present, please record that as well.

1
2 **GCC Rio Grande**

3
4 **Figure 1. How to determine whether a source is BART-eligible:**

5
6 Step 1: Identify emission units in the BART categories Does the plant contain emissions
7 units in one or more of the 26 source categories?

8 No → Stop

9 Yes → Proceed to Step 2

10 **YES. Unit 1**

11
12 Step 2: Identify the start-up dates of these emission units Do any of these emissions units meet the
13 following two tests?

14
15 In existence on August 7, 1977 AND
16 Began operation after August 7, 1962

17
18 → No → Stop

19 → Yes → Proceed to Step 3

20 **No.**

21
22
23 Step 3: Compare the potential emissions from these emission units to the 250 ton/yr cutoff
24 Identify the “stationary source” that includes the emission units you identified in Step 2. Add
25 the current potential emissions from all the emission units identified in Steps 1 and 2 that
26 are included within the “stationary source” boundary. Are the potential emissions from these
27 units 250 tons per year or more for any visibility-impairing pollutant?

28 No → Stop

29 Yes → These emissions units comprise the “BART-eligible source.”

30
31 2) If any of these facilities (even the non-BART eligible ones) have implemented controls since 2004 to
32 the present, please record that as well.