

1 **INTERSTATE TRANSPORT STATE IMPLEMENTAION PLAN ELEMENT**

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3
4 **TO SATISFY THE REQUIREMENTS OF**
5 **THE CLEAN AIR ACT § 110(a)(2)(D)(i)**

6
7
8 **CITY OF ALBUQUERQUE-BERNALILLO COUNTY**
9 **NEW MEXICO**

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13 ***PUBLIC REVIEW DRAFT***
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17 July 28, 2007

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19
20 City of Albuquerque Environmental Health Department
21 Air Quality Division
22 Control Strategies Section
23

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25 Reviewed and Approved after Public Hearing by:

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27
28 Albuquerque-Bernalillo County
29 Air Quality Control Board (AQCB)

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31 On

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34 September 12, 2007

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38 Mr. Jens Deichmann, AQCB Chair
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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
1.1 Overview	1
1.2 General SIP Requirements	1
CHAPTER 2: ANALYSIS OF “SIGNIFICANT CONTRIBUTION TO NONATTAINMENT” and “INTERFERENCE OF MAINTENANCE”	2
2.1 8-Hour Ozone	2
2.2 PM _{2.5}	7
CHAPTER 3: PREVENTION OF SIGNIFICANT DETERIORATION	11
CHAPTER 4: PROTECTION OF VISIBILITY	12
CHAPTER 5: CONCLUSION	14

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2
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APPENDICES

APPENDIX A *Guidance for State Implementation Plan (SIP) Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM_{2.5} National Ambient Air Quality Standards, U.S.*
Environmental Protection Agency, August 15, 2006

1 **CHAPTER 1: INTRODUCTION**

2

3 **1.1 Overview**

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5 In July 1997, the U.S. Environmental Protection Agency (EPA) issued the National Ambient Air
6 Quality Standards (NAAQS) for 8-hour ozone and particulate matter 2.5 microns or less in
7 diameter (PM_{2.5}). Section 110(a)(1) of the Clean Air Act (CAA) requires states to submit state
8 implementation plans (SIPs) within 3 years following the promulgation of new standards.
9 Implementation of the standards was delayed, however, due to subsequent litigation. On
10 March 10, 2005, EPA entered into a Consent Decree with Earth Justice to address the
11 interstate transport of these pollutants, a required SIP component, under CAA Section
12 110(a)(2)(D)(i) and on April 25, 2005, published a “Finding of Failure To Submit Section 110
13 State Implementation Plans for Interstate Transport for the National Ambient Air Quality
14 Standards for 8-Hour Ozone and PM 2.5” (70 FR 21147). The April 25, 2005, finding, effective
15 May 25, 2005, started a 24-month clock for EPA to either issue a final Federal Implementation
16 Plan (FIP) to address the requirements of Section 110(a)(2)(D)(i) or to approve a SIP that
17 addresses these requirements.

18

19 This document is a revision to the New Mexico State Implementation Plan for Air Quality (SIP)
20 to address interstate transport of air pollution under CAA Section 110(a)(2)(D)(i). It contains a
21 demonstration showing that New Mexico (including Bernalillo County) does not significantly
22 contribute to interstate transport of pollutants that impact nonattainment in, or interfere with
23 maintenance by, any other state with respect to the 8-hour ozone and PM_{2.5} NAAQS and
24 demonstrates that Bernalillo County meets the required prevention of significant deterioration
25 of air quality and protection of visibility provisions of the law.

26

27 **1.2 Jurisdiction:**

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29 For air quality purposes, Bernalillo County operates the same way as a state. The EPA treats
30 and funds Bernalillo County as it does other states. Enacted in 1967, the New Mexico Air
31 Quality Control Act [NM STAT ANN § § 74-2-1 through 74-2-17] allowed for the establishment
32 of the Albuquerque-Bernalillo County Air Quality Control Board (AQCB) as a local board and
33 gave it authority to administer and enforce its air quality regulations within the Bernalillo County
34 boundaries.

35

36 The AQCB has air quality jurisdiction over all of Bernalillo County, which encompasses all of
37 the City of Albuquerque. The State of New Mexico Environmental Improvement Board (EIB)
38 has jurisdiction over all counties in New Mexico except Bernalillo County. The City of
39 Albuquerque Environmental Health Department, Air Quality Division (AQD) administers and
40 staffs the air quality program for Bernalillo County. The term Department, as used in this
41 document, refers to the Albuquerque Environmental Health Department.

42

43

44 **1.3 General SIP Requirements**

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46 Section 110(a)(2)(D)(i) of the Clean Air Act requires each state to submit a SIP that prohibits
47 emissions which adversely affect another state. The SIPs must contain adequate provisions –
48
49

1 *“prohibiting...any source or other type of emissions activity within the state from emitting any*
2 *air pollutant in amounts which will –*

3
4 *(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other*
5 *state with respect to any...national primary or secondary air quality standard, or*

6
7 *(II) interfere with measures required to be included in the applicable implementation plan for*
8 *any other state... to prevent significant deterioration of air quality or to protect visibility.”*
9

10 On August 15, 2006, EPA issued guidance for states to use as they developed SIPs to meet
11 their outstanding obligations under CAA Section 110(a)(2)(D)(i) for the 8-hour ozone and PM_{2.5}
12 NAAQS (see Appendix A). The guidance outlines the four elements states should address in
13 their SIPs:

- 14 1) “significant contribution to nonattainment,”
- 15 2) “interference with maintenance,”
- 16 3) “prevention of significant deterioration,” and
- 17 4) “protection of visibility.”

18 Chapters 2 through 4 present data and information, as suggested in EPA’s guidance, that
19 demonstrate New Mexico (including Bernalillo County) meets the interstate transport
20 requirements of Section 110(a)(2)(D)(i).
21
22

23 **CHAPTER 2: ANALYSIS OF NONATTAINMENT AND MAINTENANCE AREA IMPACTS**

24

25 In the preamble to its *Rule to Reduce Interstate Transport of Fine Particulate Matter and*
26 *Ozone* or Clean Air Interstate Rule (CAIR) [69 FR 4581, January 30, 2004], EPA provided the
27 following rationale for the exclusion of the Western U.S., including New Mexico (including
28 Bernalillo County), from further consideration of transport for both 8-hour ozone and PM_{2.5} and
29 the requirements of CAIR.
30

31 *“In analyzing significant contribution to nonattainment, we determined it was reasonable*
32 *to exclude the Western U.S., including the States of Washington, Idaho, Oregon,*
33 *California, Nevada, Utah and Arizona from further analysis due to geography,*
34 *meteorology, and topography. Based on these factors, we concluded that the PM_{2.5} and*
35 *8-hour ozone nonattainment problems are not likely to be affected significantly by*
36 *pollution transported across these States' boundaries. Therefore, for the purpose of*
37 *assessing State's contributions to nonattainment in other States, we have only analyzed*
38 *the nonattainment counties located in the rest of the U.S.”*
39

40 EPA’s August 15, 2006, guidance states “the EPA anticipates, based upon existing information
41 developed in connection with the CAIR, that emissions from sources in states not covered by
42 the CAIR do not contribute significantly to nonattainment or interfere with maintenance of the 8-
43 hour ozone or PM_{2.5} NAAQS in any other State.” The guidance indicates that to satisfy the
44 requirements of Section 110(a)(2)(D)(i), non-CAIR states may submit a negative declaration
45 that the state does not significantly contribute to interstate transport of emissions impacting
46 nonattainment or interfere with maintenance of the NAAQS in another state. Information to
47 support a negative declaration may include but is not limited to the following:
48

- 49 ➤ emission inventories for sources that contribute to ambient ozone and PM_{2.5} levels;

- 1 ➤ meteorological data;
- 2 ➤ information about the distance to the nearest 8-hour ozone or PM_{2.5} nonattainment area
- 3 in another state; and
- 4 ➤ air quality modeling.

5
6 As detailed in Sections 2.1 and 2.2, the Albuquerque Environmental Health Department
7 (Department) used these and other factors in developing its demonstration of noninterference
8 for the 8-hour ozone and PM_{2.5} air quality standards.

9 10 **2.1 8-Hour Ozone**

11
12 To assist the State of New Mexico and Bernalillo County in providing a technical analysis to
13 base the determination of transport impacts from ozone and ozone-precursors, EPA Regions 6
14 and 7 collaborated on modeling specific to New Mexico (including Bernalillo County). The
15 modeling metrics used were developed by EPA and results showed that New Mexico (including
16 Bernalillo County) does not contribute significantly to downwind nonattainment to existing 8-
17 hour ozone nonattainment and maintenance areas in the Central United States ¹

18 19 **Conclusion**

20
21 'The final Clean Air Interstate Rule covers 28 eastern states and the District of Columbia. Air
22 emissions in these states contribute to unhealthy levels of ground-level ozone, fine particles or
23 both in downwind states. Several states are not included in the CAIR region because *they do*
24 *not contribute to downwind nonattainment*. These states include: Alaska, Arizona, California,
25 Colorado, Hawaii, Idaho, Kansas, Maine, Montana, Nebraska, Nevada, New Hampshire, **New**
26 **Mexico**, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Utah, Vermont,
27 Washington and Wyoming. ²

28
29 As presented in this SIP revision and EPA documentation from CAIR records, the location of
30 emissions sources, monitored air quality data, topography and meteorology, and distance to
31 downwind nonattainment areas, all demonstrate that ozone and ozone precursor emissions
32 from New Mexico (including Bernalillo County) do not significantly contribute to nonattainment
33 or interfere with maintenance of the 8-hour ozone standard in any other state. The Department
34 commits to continue to review available information regarding monitored air quality, existing
35 and projected emissions, and modeled air quality and to take whatever actions may be
36 necessary to ensure that emissions activities within Bernalillo County do not contribute
37 significantly to nonattainment in, or interfere with maintenance by, other states with respect to
38 any primary or secondary NAAQS.

¹ See 110 (a)(2)(d)(i) Modeling Technical Support Document

² See <http://www.epa.gov/interstateairquality/not-covered.html> (Emphasis added).

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2 **2.2 PM_{2.5}**

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4 **Designation**

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6 New Mexico (including Bernalillo County) is designated as unclassifiable/attainment for
7 PM_{2.5} [40 CFR 81.332]

8
9 **Modeling**

10
11 For the CAIR Notice of Proposed Rulemaking, EPA modeled PM_{2.5} emissions to
12 determine which, if any, Western states significantly contributed to interstate transport
13 affecting nonattainment in an adjacent state. The modeling showed that the
14 westernmost states, including New Mexico (including Bernalillo County), did not make
15 contributions above the significance threshold. EPA stated in its *Corrected Response*
16 *To Significant Public Comments On the Proposed Clean Air Interstate Rule (March*
17 *2005, Corrected April 2005, Document ID No. EPA-HQ2003-0053-2172, pages 200-*
18 *201)*:

19
20 “Regarding modeling of all States, in the PM_{2.5} modeling for the NPRM, we
21 modeled 41 States, and found that the westernmost of these States made very
22 small contributions to nonattainment in any other State.³ For the revised
23 modeling for the final rule, we reduced the set of States modeled [to 37 for PM]
24 for reasons of efficiency.⁴ The results again *showed that the westernmost States*
25 *modeled did not make contributions above the significance threshold, indicating*
26 *that had other even more western States been modeled they also would not have*
27 *done so.”*

28
29 **Conclusion**

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31 As presented in this SIP revision and EPA documentation from CAIR records, the
32 location of emissions sources, monitored air quality data, topography and meteorology,
33 distance to downwind nonattainment areas, and air quality modeling all demonstrate
34 that PM_{2.5} and PM_{2.5} precursor emissions from New Mexico (including Bernalillo
35 County) do not significantly contribute to nonattainment or interfere with maintenance of
36 the PM_{2.5} standards in any other state. The Department commits to continue to review
37 available information regarding monitored air quality, existing and projected emissions,
38 and modeled air quality and to take whatever actions may be necessary to ensure that
39 emissions activities within Bernalillo County do not contribute significantly to
40 nonattainment in, or interfere with maintenance by, other states with respect to any
41 primary or secondary NAAQS.
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³ The nine westernmost states that were not modeled for the NPRM are Idaho, Washington, Oregon, Nevada, California, Utah, Nevada, Alaska, and Hawaii

⁴ The additional four states not modeled for the final rule are Montana, Wyoming, Colorado, and *New Mexico*.

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2 **CHAPTER 3: PREVENTION OF SIGNIFICANT DETERIORATION**
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4 Section 110(a)(2)(D)(i)(II) of the CAA requires states to prohibit emissions within the
5 state from interfering with implementation plans from other states falling under Part C of
6 Section 110 to prevent significant deterioration of air quality.
7

8 EPA's Section 110(a)(2)(D)(i) guidance, issued on August 15, 2006, included the
9 following provisions regarding prevention of significant deterioration:
10

11 "For the 8-hour ozone standard, each State only needs to make a SIP
12 submission that confirms that major sources in the State are currently subject to
13 PSD and NNSR permitting programs that apply to the 8-hour ozone standard and
14 that SIP-approved States are on track to meet the June 15, 2007 deadline for
15 SIP submissions adopting requirements of the Phase II ozone implementation
16 rule.
17

18 For the PM 2.5 standard, States need only provide a SIP submission that
19 confirms that major sources in the State are subject for PSD and NNSR
20 permitting programs implemented in accordance with EPA's interim guidance
21 calling for use of PM-10 as a surrogate for PM-2.5 in the PSD and NNSR
22 programs."
23

24 Bernalillo County has a fully-approved PSD and NNSR program. Bernalillo County's
25 rules were revised to be consistent with the federal PSD and NNSR revised regulations,
26 which were promulgated by EPA on December 31, 2002, [67 FR 80186], and
27 reconsidered with minor changes on November 7, 2003, [68 FR 63021], (collectively,
28 the "2002 New Source Review (NSR) Reform rules"). The revisions include provisions
29 for baseline emissions calculations, an actual-to-projected-actual methodology for
30 calculating emissions changes, options for plantwide applicability limits, and
31 recordkeeping and reporting requirements.
32

33 20.11.60 NMAC, *Permitting in Nonattainment Areas* and 20.11.61 NMAC, *Prevention of*
34 *Significant Deterioration*, were repealed and replaced by the AQCB on 12/14/05 and
35 became locally effective on 1/23/06. A typo was corrected in 20.11.61 NMAC on
36 4/12/06, and became effective locally on 5/15/06. EPA approved these changes on
37 4/26/07 [FR Vol. 72, No. 80, 20728-20730], which became federally effective on
38 5/29/07.
39

40
41 **CHAPTER 4: PROTECTION OF VISIBILITY**
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43 Section 110(a)(2)(D)(i)(II) contains a requirement for states to prohibit emissions that interfere
44 with plans from other states that protect visibility. In 1980, EPA issued regulations requiring
45 states to address reasonably attributable visibility impairment (RAVI). EPA's guidance for
46 Section 110(a)(2)(D)(i) issued on August 15, 2006, states the following regarding RAVI:

1
2 “At this point in time, EPA has made no determination that emissions from any
3 State interfere with measures required to be included in a plan to address
4 reasonably attributable visibility impairment. Further, EPA is not aware of any
5 certification of existing reasonably attributable impairment of visibility by a
6 Federal Land manager that has not already been resolved. The EPA accordingly
7 believes that States should be able to make a relatively simple SIP submission
8 verifying that no source within the State emits pollutants that interfere with
9 measures included in the visibility SIPs under the 1980 regulations.”⁵

10
11 Based on the conclusions stated by EPA in the above cited guidance, the Department
12 concludes that there are no sources of emissions within New Mexico or Bernalillo
13 County that interfere with implementation of RAVI SIPs in other states.

14
15 In 1999, EPA promulgated the first of a series of rules governing the “regional haze”
16 aspect of visibility impairment. Because states are not required to submit Regional
17 Haze SIPs until December 2007, it is probably too early to assess the impact of
18 transported pollution on visibility in federally protected areas.

19
20 EPA guidance states that:

21
22 EPA believes that it is currently premature to determine whether or not State
23 SIPs for 8-hour ozone or PM_{2.5} contain adequate provisions to prohibit emissions
24 that interfere with measures in other States' SIPs designed to address regional
25 haze. Accordingly, EPA believes that States may make a simple SIP submission
26 confirming that it is not possible at this time to assess whether there is any
27 interference with measures in the applicable SIP for another State designed to
28 "protect visibility" for the 8-hour ozone and PM_{2.5} NAAQS until regional haze SIPs
29 are submitted and approved.⁶

30
31 The AQCB adopted its first Regional Haze SIP on November 12, 2003, which was
32 subsequently submitted to EPA in December 2003. This Regional Haze SIP followed
33 40 CFR 51.309, which addressed reasonable progress in reducing impacts on Class I
34 areas on the Colorado Plateau. While New Mexico's 2007 SIP update will analyze any
35 impacts from New Mexico that extend beyond the Colorado Plateau and determine
36 appropriate long-term strategies for control measures; Bernalillo County does not have
37 any Class I Areas, and therefore will not address areas outside the Colorado Plateau,
38 nor will additional control strategies be included in the 2007 AQCB Regional Haze SIP
39 re-submittal.

⁵ Guidance for the State Implementation Plan Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour ozone and PM_{2.5} National Ambient Air Quality Standards, EPA, August 15, 2006, page 9.

⁶ Guidance for the State Implementation Plan Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour ozone and PM_{2.5} National Ambient Air Quality Standards, EPA, August 15, 2006, page 9-10.

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CHAPTER 5: CONCLUSION

Based on the information and conclusions presented in this SIP submission, the Department has determined that Bernalillo County will not significantly contribute to nonattainment or interfere with maintenance of 8-hour ozone or PM_{2.5} NAAQS in any other state. In addition, Bernalillo County meets the PSD and protection of visibility requirements under CAA Section 110(a)(2)(D)(i).

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Appendix A

Guidance for State Implementation Plan (SIP) Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM_{2.5} National Ambient Air Quality Standards, U.S. Environmental Protection Agency, August 15, 2006