



6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R06-OAR-2014-0214; FRL-9910-77-Region 6]**

**Approval and Promulgation of Implementation Plans; New Mexico;**

**Regional Haze and Interstate Transport Affecting Visibility State Implementation Plan**

**Revisions; Withdrawal of Federal Implementation Plan for the San Juan Generating**

**Station**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed Rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve revisions to the New Mexico Regional Haze State Implementation Plan that address the Best Available Retrofit Technology (BART) requirement for oxides of nitrogen (NO<sub>x</sub>) for the Public Service of New Mexico (PNM) San Juan Generating Station (SJGS) in San Juan County, New Mexico and the New Mexico Visibility Transport SIP that address impacts of emissions from the SJGS, as required by the Federal Clean Air Act (CAA) mandate to ensure that emissions from sources in New Mexico do not interfere with programs in other states to protect visibility. In conjunction with these proposed approvals, we propose to withdraw the federal implementation plan (FIP) that addresses the NO<sub>x</sub> BART and visibility transport requirements for the SJGS. The EPA is taking this action under the CAA.

**DATES:** Comments must be received on or before **[Insert date 30 days after publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R06-OAR-2014-0214 by one of the following methods:

- Federal e-Rulemaking Portal: *http://www.regulations.gov*. Follow the online instructions.
- E-mail: [feldman.michael@epa.gov](mailto:feldman.michael@epa.gov)
- Mail or delivery: Mr. Guy Donaldson, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.

*Instructions:* Direct your comments to Docket No. EPA-R06-OAR-2014-0214. Our policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The *www.regulations.gov* web site is an “anonymous access” system, which means we will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to us without going through *www.regulations.gov* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, we recommend that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If we cannot read your comment due to technical difficulties and cannot contact you for

clarification, we may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. Clearly mark the part or all of the information that you claim as CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, you must submit a copy of the comment that does not contain the information claimed as CBI for inclusion in the public docket. We will not disclose information so marked except in accordance with procedures set forth in 40 CFR part 2.

*Docket:* The index to the docket for this action is available electronically at [www.regulations.gov](http://www.regulations.gov) and in hard copy at EPA Region 6, 1445 Ross Avenue, Suite 700, Dallas, Texas. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available at either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment with the person listed in the **FOR FURTHER INFORMATION CONTACT** paragraph below or Mr. Bill Deese at 214-665-7253.

**FOR FURTHER INFORMATION CONTACT:** Michael Feldman, 214-665-9793;

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**SUPPLEMENTARY INFORMATION:**

**Definitions**

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- i. The words or initials Act or CAA mean or refer to the Clean Air Act, unless the context indicates otherwise.
- ii. The words EPA, we, us or our mean or refer to the United States Environmental Protection Agency.
- iii. The initials SIP mean or refer to State Implementation Plan.
- iv. The initials FIP mean or refer to Federal Implementation Plan.
- v. The initials RH and RHR mean or refer to Regional Haze and the Regional Haze Rule.
- vi. The initials NMED mean the New Mexico Environmental Department.
- vii. The initials BART mean or refer to Best Available Retrofit Technology.
- viii. The initials EGUs mean or refer to Electric Generating Units.
- ix. The initials NO<sub>x</sub> mean or refer to nitrogen oxides.
- x. The initials SO<sub>2</sub> mean or refer to sulfur dioxide.
- xi. The initials H<sub>2</sub>SO<sub>4</sub> mean or refer to sulfuric acid.
- xii. The initials PM<sub>2.5</sub> mean or refer to particulate matter with an aerodynamic of less than 2.5 micrometers.
- xiii. The initials NAAQS mean or refer to the National Ambient Air Quality Standards.
- xiv. The initials RPOs mean or refer to regional planning organizations.
- xv. The initials WRAP mean or refer to the Western Regional Air Partnership.
- xvi. The initials GCVTC mean or refer to the Grand Canyon Visibility Transport Commission.
- xvii. The initials PNM mean or refer to the Public Service Company of New Mexico.
- xviii. The initials SJGS mean or refer to the San Juan Generating Station.

- xix. The initials SCR mean or refer to Selective Catalytic Reduction.
- xx. The initials SNCR mean or refer to Selective Non-Catalytic Reduction.
- xxi. The initials TSD mean or refer to Technical Support Document.

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## **I. Overview of Proposed Action**

### **A. Summary of State Submittals and EPA Actions**

The State of New Mexico adopted and transmitted an Interstate Transport SIP revision on September 17, 2007 for the purpose of addressing the “good neighbor” provisions of the CAA section 110(a)(2)(D)(i) for the 1997 8-hour ozone NAAQS and the PM<sub>2.5</sub> NAAQS. The EPA disapproved a portion of that SIP submittal addressing the requirements with respect to visibility transport (VT) and concurrently promulgated a FIP establishing enforceable NO<sub>x</sub> and SO<sub>2</sub> emission limits for the SJGS on August 22, 2011. The EPA set SO<sub>2</sub> emission limits of 0.15 pounds per million British Thermal Units (lb/MMBtu) for the four units of the SJGS. The EPA

set enforceable NO<sub>x</sub> emission limits of 0.05 lbs/MMBtu based upon the EPA's NO<sub>x</sub> BART determination for the SJGS, to ensure that its emissions would meet the "good neighbor" requirement for visibility protection, as well as the requirement for NO<sub>x</sub> BART. 76 FR 52388 (August 22, 2011). The EPA's NO<sub>x</sub> BART emission limits can be met by the installation of selective catalytic reduction (SCR) at all four units of SJGS. Among other things, the FIP also included a sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emission limit to minimize the contribution of this pollutant to visibility impairment, since emissions of this pollutant can potentially increase due to operation of SCR. While the FIP at 49 CFR 52.1628 is currently in place, it may be withdrawn if the EPA approves a SIP revision addressing the RH requirements for NO<sub>x</sub> BART and the VT requirements for enforceable NO<sub>x</sub> and SO<sub>2</sub> emission limits.

The State of New Mexico adopted and transmitted RH SIP revisions on December 1, 2003 and July 5, 2011 ("2011 RH SIP revision") that addressed the requirements of 40 CFR 51.309. The EPA approved all of the two submittals on November 7, 2012 (77 FR 70693) except for the submitted NO<sub>x</sub> BART determination for SJGS. We did not take action on this portion of the 2011 RH SIP revision because stakeholders, including PNM, the New Mexico Environmental Department (NMED), and EPA, initiated discussions on the development of a new alternative that, if approved, would impose new NO<sub>x</sub> BART requirements on SJGS and allow for withdrawal of our FIP. In a February 22, 2013 letter, New Mexico requested that the EPA stay any agency review of the NO<sub>x</sub> BART portion of the 2011 RH SIP revision in the interest of pursuing development and a hoped-for approval of an alternative.

Accordingly, New Mexico submitted RH SIP revisions on October 7, 2013 and November 5, 2013, (“2013 RH SIP revision”) that build on the 2011 RH SIP revision.<sup>1</sup> The 2013 RH SIP revision contains a new NO<sub>x</sub> BART determination for the SJGS (referred to as the “State Alternative”<sup>2</sup>). The State Alternative consists of a previously un-contemplated control scenario involving unit shutdowns at the SJGS. If fully approved by the EPA, the State Alternative supersedes the State’s previous NO<sub>x</sub> BART determination that was included in the 2011 RH SIP revision. The State Alternative reflects the terms of the nonbinding agreement signed between the PNM, NMED, and EPA to address the regional haze requirements applicable to the SJGS. This agreement is included as Exhibit 5 of the 2013 RH SIP revision.<sup>3</sup> The 2013 RH SIP revision also includes a preconstruction permit submitted on November 5, 2013<sup>4</sup> that sets a NO<sub>x</sub> emission limit based upon the State Alternative, compliance schedules, compliance deadline for shutdown of two units, and monitoring and testing requirements. We previously found that the 2013 RH SIP revision met the completeness criteria in 40 CFR Part 51, Appendix V on December 17, 2013.<sup>5</sup>

New Mexico also adopted and submitted VT SIP revisions on July 5, 2011 (“2011 VT SIP revision”), and on October 18, 2013 and November 5, 2013 (“2013 VT SIP revision”). The

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<sup>1</sup> We are acting on everything not yet acted upon in the 2011 RH SIP revision that pertains to the 2013 NO<sub>x</sub> BART determination. The 2013 RH SIP revision explains that the revised, more recent NO<sub>x</sub> BART determination would “supersede” the 2011 NO<sub>x</sub> BART determination if EPA approves it. Certain NMED documents from the 2011 RH SIP revision are relevant to the state’s 2013 conclusions regarding NO<sub>x</sub> BART, but other information that relates solely to the 2011 NO<sub>x</sub> BART determination would be moot should EPA finalize an approval as today proposed.

<sup>2</sup> While the descriptor *alternative* suffices for explaining the procedural setting for our review, it is not here being used as a regulatory term of art. In other words, we do not intend to suggest that the State Alternative is an “alternative measure” under 40 CFR 51.308(e)(2) or that it purports to provide greater reasonable progress than BART.

<sup>3</sup> Term Sheet Between the U.S. Environmental Protection Agency, Public Service Company of New Mexico and the State of New Mexico (“Term Sheet”), February 15, 2013.

<sup>4</sup> NSR Technical Permit Revision, NSR Permit No. 0063-M6R3, November 1, 2013.

<sup>5</sup> See letter from EPA to Richard Goodyear, Bureau Chief, Air Quality Bureau, NMED, December 17, 2013.

2011 VT SIP revision, as revised in 2013, includes the determination that all sources in New Mexico are sufficiently controlled to eliminate interference with the visibility programs of other states. It also includes a preconstruction permit for the SJGS, submitted on November 5, 2013,<sup>6</sup> establishing a more stringent SO<sub>2</sub> emission limit as part of the State Alternative and a NO<sub>x</sub> emission limit reflecting the State Alternative.

New Mexico has incorporated emissions limits and requirements for unit shutdowns into the 2013 preconstruction permit that was submitted as part of the SIP revisions. Specifically, as a source-specific requirement of the New Mexico SIP for regional haze and visibility transport, section A112C of the 2013 SJGS permit provides a more stringent SO<sub>2</sub> emission limit as part of the State Alternative and a NO<sub>x</sub> emission limit reflecting the State Alternative. The fuller permit contains three independent scenarios under section A112: A, B and C. If the SIP revisions are fully approved by the EPA and consistent with the terms of the permit as explained in the background section of the permit, Scenario C becomes effective and the other two scenarios are moot.

#### **B. Proposed Action on NO<sub>x</sub> BART Determination for SJGS**

As a “309” state, the regulatory requirement for NO<sub>x</sub> BART applies to subject-to-BART sources in New Mexico via 40 CFR 51.309(d)(4)(vii), which requires that the SIP contain “BART requirements for stationary source PM and NO<sub>x</sub> emissions.”<sup>7</sup> We note that we approved New Mexico’s BART determination for PM emissions from the SJGS in our final action on November 27, 2012. 77 FR 70693. Today, we are proposing to approve New Mexico’s latest NO<sub>x</sub> BART determination for the SJGS and are proposing to withdraw our FIP. Upon final

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<sup>6</sup> NSR Technical Permit Revision, NSR Permit No. 0063-M6R3, November 1, 2013.

<sup>7</sup> 40 CFR 51.308(e) contains the basic regulatory requirement for BART.

approval of the 2013 RH SIP revision, the FIP requirements addressing regional haze, including the NO<sub>x</sub> and H<sub>2</sub>SO<sub>4</sub> emission limits,<sup>8</sup> may be withdrawn through a separate Administrator-signed final action.

### **C. Proposed Action on Interstate Transport Affecting Visibility**

We are also proposing to approve the 2011 Visibility Transport SIP revision as revised in 2013 as addressing the “good neighbor” provisions of CAA section 110(a)(2)(D)(i) for the 1997 8-hour ozone NAAQS and the PM<sub>2.5</sub> NAAQS. Section 110(a)(2)(D)(i)(II) of the Act requires that a SIP contain provisions “prohibiting any source or other type of emission activity within the state from emitting any air pollutant in amounts which will . . . interfere with measures required to be included in the applicable implementation plan for any other State under part C [of the CAA] to protect visibility.” Because of the impacts on visibility from the interstate transport of pollutants, we interpret the “good neighbor” provisions of section 110 of the Act as requiring states to include in their SIPs either measures to prohibit emissions that would interfere with the reasonable progress goals set to protect Class I areas in other states, or a demonstration that emissions from the State’s sources and activities will not interfere with other states’ visibility programs.

We are proposing to approve the 2011 Visibility Transport SIP revision as revised in 2013 because it demonstrates that emissions from all sources in New Mexico are sufficiently controlled to eliminate interference with visibility programs of other states. We are proposing to approve the 2013 permit for SJGS on the basis that the SO<sub>2</sub> and NO<sub>x</sub> emission limits for the

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<sup>8</sup> Since we are proposing to approve the State Alternative that does not include SCR operation, we are also proposing to withdraw the H<sub>2</sub>SO<sub>4</sub> emission limit in the FIP as it is no longer necessary to protect visibility impairment from the facility due to emissions of H<sub>2</sub>SO<sub>4</sub>.

SJGS will sufficiently prevent emissions from sources in New Mexico from interfering with the visibility programs of other states. Consistent with our proposed approval of the 2011 Visibility Transport SIP revision, as revised in 2013, we are proposing to rescind the provisions of the FIP that address NO<sub>x</sub> and SO<sub>2</sub> emissions for the SJGS for the purpose of meeting the “good neighbor” requirements of CAA section 110(a)(2)(D)(i)(II) with respect to visibility. Upon final approval of the 2011 Visibility Transport SIP revision, as revised in 2013, the FIP requirements pertaining to SO<sub>2</sub> and NO<sub>x</sub> emission limits for visibility transport for the SJGS may be withdrawn through a separate Administrator-signed final action.

## **II. What is the Background for Our Proposed Actions?**

In the CAA Amendments of 1977, Congress established a program to protect and improve visibility in national parks and wilderness areas. See CAA section 169A. Congress amended the visibility provisions in the CAA in 1990 to focus attention on the problem of regional haze. See CAA section 169B. We promulgated regulations in 1999 to implement sections 169A and 169B of the Act. These regulations require states to develop and implement SIPs to ensure reasonable progress toward improving visibility in mandatory Class I Federal areas (Class I areas) by reducing emissions that cause or contribute to regional haze.<sup>9</sup> The final actions published at 77 FR 70693 (November 27, 2012) and 76 FR 52388 (August 22, 2011), and their underlying proposals, contain complete discussions of the RHR requirements, generally, as well as the detailed background information on those requirements as applicable to states such as New Mexico that elected to submit SIPs to satisfy the requirements of 40 CFR 51.309, i.e., the regulations specially developed for certain Western states opting to address regional haze at Colorado Plateau Class I areas by implementing the recommendations of the Grand Canyon

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<sup>9</sup> See 64 FR 35714 (July 1, 1999); see also 70 FR 39104 (July 6, 2005) and 71 FR 60612 (October 13, 2006).

Visibility Transport Commission. The requirements for NO<sub>x</sub> BART and interstate transport for visibility are the only requirements addressed in this proposal, and other regional haze requirements are discussed for background purposes only.

#### **A. Requirements for Best Available Retrofit Technology**

Regional haze SIPs must assure reasonable progress towards the national goal of achieving natural visibility conditions in Class I areas. Section 169A of the CAA and our implementing regulations require states to establish long-term strategies for making reasonable progress toward meeting this goal. SIPs must also give specific attention to certain stationary sources that were in existence on August 7, 1977, but were not in operation before August 7, 1962, and require these sources, where appropriate, to install BART controls for the purpose of eliminating or reducing visibility impairment.

Pursuant to 40 CFR 51.309(d)(4)(vii), a regional haze SIP submitted under the 309 program to address SO<sub>2</sub> emissions must contain any necessary long-term strategies and BART requirements for PM and NO<sub>x</sub>. These BART determinations must be submitted pursuant to 40 CFR 51.308(e). States are directed to conduct BART determinations for such sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area. Rather than requiring source-specific BART controls, states also have the flexibility under 40 CFR 51.308(e)(2) to adopt an emissions trading program or other alternative program as long as the alternative program provides greater reasonable progress towards improving visibility than BART. The discussion below specifically applies to regional haze SIPs that opt to require BART on sources subject to the BART requirements, rather than satisfying the requirements for alternative measures that would be evaluated under 40 CFR 51.308(e)(2).

On July 6, 2005, the EPA published the *Guidelines for BART Determinations Under the Regional Haze Rule* at Appendix Y to 40 CFR Part 51 (hereinafter referred to as the “BART Guidelines”) to assist states in determining which of their sources should be subject to the BART requirements and the appropriate emission limits for each applicable source. The BART Guidelines are not mandatory for all sources. However, in making a BART determination for a fossil fuel-fired electric generating plant (EGU) with a total generating capacity in excess of 750 megawatts, a state must use the approach set forth in the BART Guidelines. See CAA section 169A(b)(2). A state is encouraged, but not required, to follow the BART Guidelines in making BART determinations for other types of sources.

The process of establishing BART emission limitations can be logically broken down into three steps: first, states identify those sources which meet the definition of “BART-eligible source” set forth in 40 CFR 51.301;<sup>10</sup> second, states determine whether such sources “emit[] any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area” (a source that fits this description is “subject to BART”) and; third, for each source subject to BART, states identify the appropriate type and the level of control for reducing emissions.

Under the BART Guidelines, states may select a visibility impact threshold, measured in deciviews (dv), below which a BART-eligible source would not be expected to cause or contribute to visibility impairment in any Class I area. The state must document this threshold in the SIP and state the basis for its selection of that value. Any source with visibility impacts that model above the threshold value would be subject to a BART determination review. The BART

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<sup>10</sup> BART-eligible sources are those sources that have the potential to emit 250 tons or more of a visibility-impairing air pollutant, were put in place between August 7, 1962 and August 7, 1977, and whose operations fall within one or more of 26 specifically listed source categories. See CAA section 169A(b)(2)(A).

Guidelines acknowledge varying circumstances affecting different Class I areas. States should consider the number of emission sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts. Any visibility impact threshold set by the state should not be higher than 0.5 dv. See 40 CFR pt. 51, app. Y, section III.A.1.

The BART Guidelines establish the dv as the principal metric for measuring visibility. *Id.* This visibility metric expresses uniform changes in visibility impairment in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Visibility is sometimes expressed in terms of the visual range which is the greatest distance, in kilometers or miles, at which a dark object can just be distinguished against the sky. The dv is a more useful measure for tracking progress in improving visibility because each dv change is an equal incremental change in visibility perceived by the human eye.

In their SIPs, states must identify subject-to-BART sources and document their BART control determination analyses. In making BART determinations, section 169A(g)(2) of the CAA requires that states consider the following factors: (1) the costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. States are free to determine the weight and significance to be assigned to each factor.

A regional haze SIP must include source-specific BART emission limits and compliance schedules for each source subject to BART. Once a state has made its BART determination, the BART controls must be installed and operated as expeditiously as practicable, but no later than five years after the date of the EPA approval of the regional haze SIP. CAA section 169(g)(4); 40

CFR 51.308(e)(1)(iv). In addition to what is required by the RHR, general SIP requirements mandate that the SIP must also include all regulatory requirements related to monitoring, recordkeeping, and reporting for the BART controls on the source. See CAA section 110(a).

Pursuant to 40 CFR 51.309(d)(4)(vii), the 2013 RH SIP revision contains an enforceable NO<sub>x</sub> BART determination. We had previously promulgated a FIP that included NO<sub>x</sub> emission limits of 0.05 lb/MMBtu on each of the four units at SJGS to address both the requirements of CAA section 110(a)(2)(D)(i)(II) and the NO<sub>x</sub> BART requirements of CAA section 169A and the Regional Haze Rule. The FIP also included emission limits for H<sub>2</sub>SO<sub>4</sub>, which were established to minimize the contribution of this pollutant to visibility impairment in light of potential increases in emissions due to operation of SCR.

#### **B. The 1997 NAAQS for Ozone and PM<sub>2.5</sub> and CAA 110(a)(2)(D)(i)**

On August 15, 2006, we issued our “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<sub>2.5</sub> National Ambient Air Quality Standards” (2006 Guidance). We developed the 2006 Guidance to make recommendations to states for making submissions to meet the requirements of CAA section 110(a)(2)(D)(i) for the 1997 8-hour ozone standards and the 1997 PM<sub>2.5</sub> standards.

As identified in the 2006 Guidance, the “good neighbor” provisions in section 110(a)(2)(D)(i) of the CAA require each state to submit a SIP that prohibits emissions that adversely affect another state in the ways contemplated in the statute. Section 110(a)(2)(D)(i) contains four distinct requirements related to the impacts of interstate transport. The SIP must prevent sources in the state from emitting pollutants in amounts which will: (1) contribute significantly to nonattainment of the NAAQS in other states; (2) interfere with maintenance of

the NAAQS in other states; (3) interfere with provisions to prevent significant deterioration of air quality in other states; or (4) interfere with efforts to protect visibility in other states. In this action, we only address the fourth element regarding visibility.

The 2006 Guidance stated that states may make a simple SIP submission confirming that it is not possible at that time to assess whether there is any interference with measures in the applicable SIP for another state designed to "protect visibility" for the 8-hour ozone and PM<sub>2.5</sub> NAAQS until regional haze SIPs were submitted and approved. Regional haze SIPs were required to be submitted by December 17, 2007. 40 CFR 51.308(b).

Although we received a SIP revision from New Mexico on September 17, 2007, to meet the requirements of section 110(a)(2)(D)(i), a portion of which addressed the fourth element regarding interference with the programs of other states to protect visibility, we disapproved this portion of the SIP revision for the reasons discussed in our final action published on August 22, 2011. 76 FR 52389. That action concurrently promulgated a FIP requiring SO<sub>2</sub> and NO<sub>x</sub> emission limits for the SJGS to prevent interference with programs to protect visibility in other states and finalized a determination that, at that time, no additional controls on any other sources were necessary.

### **III. Our Analysis of the State of New Mexico's Regional Haze SIP Revision for NO<sub>x</sub> BART**

The following discussion evaluates the 2013 RH SIP revision intended to address the requirements of 40 CFR 51.309(d)(4)(vii) for the implementation of NO<sub>x</sub> BART at SJGS. The BART evaluation process consists of three components: (1) an identification of all BART-eligible sources, (2) an assessment of whether those BART-eligible sources are in fact subject to BART and (3) a determination of any BART controls. In our prior review and action on the 2011 RH SIP revision, we agreed with New Mexico's identification of sources that are BART-

eligible and subject to BART, including Units 1, 2, 3, and 4 of the SJGS. 77 FR 70693 (November 27, 2012). We approved the State's PM BART determinations and emission limits for these units, as well as the State's participation in the SO<sub>2</sub> emission reduction milestones and backstop trading program, while taking no action on the State's NO<sub>x</sub> BART determinations and emission limits for these units. The State's conclusions were also consistent with the determinations that the EPA made in the course of promulgating its FIP for the SJGS. In that final action we found that units 1, 2, 3, and 4 of the SJGS comprise the only New Mexico source subject to BART. 77 FR 70693 (November 27, 2012). The focus of our current review is on the third component—the determination of NO<sub>x</sub> BART controls for these units.

The BART Guidelines<sup>11</sup> describe the BART analysis as consisting of the following five basic steps:

- Step 1: Identify All Available Retrofit Control Technologies,
- Step 2: Eliminate Technically Infeasible Options,
- Step 3: Evaluate Control Effectiveness of Remaining Control Technologies,
- Step 4: Evaluate Impacts and Document the Results, and
- Step 5: Evaluate Visibility Impacts.

The SJGS consists of four coal-fired generating units and associated support facilities. Each coal-fired unit burns pulverized coal and No. 2 diesel oil (for startup) in a boiler, and produces high-pressure steam that powers a steam turbine coupled with an electric generator. Electric power produced by the units is supplied to the electric power grid for sale. Coal for the units is supplied by the adjacent San Juan Mine. Units 1 and 2 have a unit capacity of 350 and 360 MW, respectively. Units 3 and 4 each have a unit capacity of 544 MW.

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<sup>11</sup> 70 FR 39164.

In June 2007, the operator of the SJGS, PNM, submitted its NO<sub>x</sub> BART evaluation to NMED. That analysis was added to and revised multiple times to incorporate new information or in response to comments/requests from the NMED<sup>12</sup> for additional visibility modeling analyses, control technology considerations, and cost analyses.<sup>13</sup> PNM's April 2013 BART Analysis addendum<sup>14</sup> (referred to hereafter as the "2013 PNM report") is an addendum and update to the 2007 evaluation and subsequent revisions. This analysis adds to and updates the previous analyses and considers a new scenario not previously evaluated.

The 2013 RH SIP revision under review in this action builds upon the 2011 RH SIP revision and its supporting BART analyses, and examines a new control scenario including unit shutdowns not previously analyzed. For purposes of reviewing projected visibility benefits and cost-effectiveness, this scenario, called the State Alternative, is compared to the control scenario in the FIP (SCR on all four units) and the State's 2011 NO<sub>x</sub> BART determination (selective non-catalytic reduction (SNCR) on all four units). The State Alternative differs from the NO<sub>x</sub> BART emission limit of 0.05 lb/MMBtu in the FIP (which can be met by the installation of SCR on all four units) and the State's earlier submitted, superseded (if the 2013 RH SIP revision is fully approved) determination of 0.23 lb/MMBtu (which can be met by installation of SNCR on all four units). The State Alternative contains several elements, including among other things, the installation of SNCR on Units 1 and 4 and enforceable deadlines by which Units 2 and 3 will be permanently retired. The emission reductions, visibility improvements, and additional non-air

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<sup>12</sup> Correspondence between PNM and NMED concerning these BART analyses is contained in NMED Exhibit 6 of the 2011 RH SIP revision.

<sup>13</sup> PNM's 2007 BART analysis and subsequent analyses are Exhibit 7a through 7t of the NMED's 2011 RH SIP revision.

<sup>14</sup> Public Service of New Mexico, Best Available Retrofit Technology Analysis, Addendum, April 1, 2013, submitted as Exhibit 6 of the 2013 RH SIP revision

quality environmental benefits due to the unit shutdowns were an important consideration in New Mexico's selection of the State Alternative as NO<sub>x</sub> BART for the SJGS. More specifically, the 2013 RH SIP revision requires the following:

- Fifteen (15) months after the EPA final approval of the 2013 RH SIP revision, but no earlier than January 31, 2016, the PNM will complete installation of SNCR technology on the SJGS Units 1 and 4 and meet an emission limit of 0.23 lb/MMBtu on a rolling 30-day average basis;<sup>15</sup>
- Retirement of the SJGS Units 2 and 3 by December 31, 2017;
- The PNM will commence a program of testing and evaluation, after the installation of SNCRs, to determine if additional NO<sub>x</sub> emission reductions can be achieved. The Testing Program, consisting of SNCR performance testing, fuel performance testing, and long-term performance evaluation, must be completed no later than January 31, 2017.<sup>16</sup>

In accordance with section 169A of the CAA, the RHR, and the BART Guidelines, New Mexico weighed the five statutory factors in making its NO<sub>x</sub> BART determination. New Mexico's final evaluation is available in the revised Chapter 10 and Appendix D of the 2013 RH SIP revision. We note that the State Alternative also results in additional reductions in the emissions of SO<sub>2</sub> on Units 1 and 4. These SO<sub>2</sub> emission reductions occur separately and apart from the SO<sub>2</sub> backstop trading program that the EPA has already approved as satisfying SO<sub>2</sub>

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<sup>15</sup> The permit conditions at A112C specify the averaging time and calculation methodology for the enforceable emission limit for NO<sub>x</sub> on Units 1 and 4 of 0.23 lb/MMBtu on a boiler operating day basis, averaged across the two units.

<sup>16</sup> Unless the long-term performance evaluation is delayed due to a delay in the EPA approval or per the language in the Term Sheet at paragraph 1(d)(iv) concerning the evaluation period spanning the required number of days during both the summer and winter months.

BART. These SO<sub>2</sub> reductions will result in increased visibility improvement, and result in permitted emissions substantially below the level needed to prevent SO<sub>2</sub> emissions from New Mexico from interfering with the visibility programs of other States, as discussed in our review of the State's 2013 Visibility Transport SIP revision below.

#### **A. New Mexico's NO<sub>x</sub> BART Determination**

In promulgating our FIP, we drew heavily upon the analyses prepared by the NMED and PNM that were available at the time. While we agreed with some conclusions presented in those analyses, we also disagreed with a number of points that are outlined in the proposed and final FIP Federal Register notices. 76 FR 491 (January 5, 2011) and 76 FR 52388 (August 22, 2011). The BART review of the State Alternative in the 2013 RH SIP revision examines a new control scenario, the State Alternative, and compares it to the control scenarios in the FIP and the 2011 RH SIP revision. As explained above, the State Alternative is a new control scenario proposed by the PNM in coordination with the State that includes the shutdown of two units at the SJGS by December 31, 2017. Consequently, this control scenario is different than the control scenarios contemplated in the FIP and the 2011 RH SIP revision. Although the EPA's regulations do not require states to consider a fuel switch or a shutdown of an existing unit as part of their BART analyses, a state may include such options in its analysis where a company voluntarily offers such measures as a strategy for reducing emissions.

##### **i. Identification of All Available Retrofit Emission Control Technologies**

The SJGS currently has low-NO<sub>x</sub> burners (LNB) with overfire air (OFA) and a neural network to reduce NO<sub>x</sub> emissions and comply with a 2005 consent decree<sup>17</sup> emission limit of

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<sup>17</sup> Consent Decree in *The Grand Canyon Trust and Sierra Club, Plaintiffs, The State of New Mexico, Plaintiff-Intervenor, v. Public Service Company of New Mexico, Defendant*, (CV 02-552BB/ACT (ACE)), lodged in the

0.30 lb NO<sub>x</sub>/MMBtu on a daily rolling 30-day average basis. To address step 1 of the BART analysis, New Mexico identified a number of potentially available NO<sub>x</sub> control technologies, including SNCR, SCR, SNCR/SCR Hybrid, Natural Gas Reburn, Nalco Mobotec ROFA and Rotamix, NOxStar, ECOTUBE, PowerSpan ECO, Phenix Clean Combustion, and e-SCRUB.

## **ii. Elimination of Technically Infeasible Options**

To address step 2 of the BART analysis, New Mexico determined that the following potentially available NO<sub>x</sub> control technologies are not technically feasible: Natural Gas Reburn, NOxStar, ECOTUBE, PowerSpan ECO, Phenix Clean Combustion, and e-SCRUB. This conclusion is consistent with our own analysis in development of the FIP. New Mexico concluded that SCR, SNCR, SNCR/SCR Hybrid, and Nalco Mobotec ROFA and Rotamix are technically feasible control options for the SJGS units.

## **iii. Evaluation of Control Effectiveness of Remaining Control Technologies**

Step 3 of the BART analysis requires the evaluation of the control effectiveness of the remaining control technologies. Table 1 shows the control effectiveness of each remaining control technology in New Mexico's BART analysis, based on a baseline emission rate of 0.30 lb/MMBtu. In its 2011 RH SIP revision, New Mexico revised the achievable controlled emission rate of SNCR from its earlier analysis of 0.24 lb/MMBtu to 0.23 lb/MMBtu, based on tests and an updated performance guarantee from the vendor.<sup>18</sup> New Mexico previously evaluated SCR at an emission rate of 0.07 lb/MMBtu and a control efficiency of 77%.<sup>19</sup> In its 2013 RH SIP revision, however, New Mexico revised its evaluation of SCR, concluding that at an emission

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United States District Court, District of New Mexico, on March 10, 2005, at 15–16.

<sup>18</sup> Public Service Company of New Mexico, San Juan Generating Station, Revised SNCR Analysis, February 11, 2011 (2011 NM RH SIP, NMED Ex. 7t)

<sup>19</sup> As we discuss in our FIP regarding NO<sub>x</sub> BART for the SJGS, we found that SCRSCRSCR is capable of achieving an emission limit of 0.05 lbs/MMBtu on each of the units of the SJGS, based on a 30 boiler operating day average. 76 FR 52388.

rate of 0.05 lb/MMBtu and a control efficiency of 83% are achievable, consistent with our own evaluation in the FIP.

**Table 1. New Mexico’s determination of NO<sub>x</sub> Control Effectiveness**

<b>Control Technology</b>	<b>Control Efficiency (%)</b>	<b>Controlled Emission Rate (lb/MMBtu)</b>
ROFA	13%	0.26
Rotamix (SNCR)	23%	0.23
SNCR	23%	0.23
ROFA/Rotamix	33%	0.20
SCR/SNCR Hybrid	40%	0.18
SCR	83%	0.05

**iv. Evaluation of Impacts and Documentation of Results**

The BART Guidelines require that the cost of compliance, energy impacts, non-air quality environmental impacts, and remaining useful life of the facility be analyzed for each potential control technology in step 4. Table 2, which is found as Table 10 of the revised Appendix D of the 2013 RH SIP revision, summarizes the unit specific cost analysis results submitted to the NMED by PNM. The control effectiveness for SCR and SNCR in this analysis have been updated and the costs of these two options have also been revised to reflect more recent cost information submitted by the PNM<sup>20</sup> to NMED for evaluation. The costs associated with ROFA, ROFA/Rotamix and Rotamix are based on the 2008 vendor quotes<sup>21</sup> and later adjusted to 2010 dollars.<sup>22</sup> The cost of sorbent injection is included in the cost analysis for

<sup>20</sup> Best Available Retrofit Technology Analysis Addendum, Public Service of New Mexico, April 1, 2013, submitted as Exhibit 6 of the 2013 RH SIP revision

<sup>21</sup> PNM San Juan Generating Station BART Analysis of Nalco Mobotec NO<sub>x</sub> Control Technologies, August 29, 2008. NMED Exhibit 7n of the 2011 RH SIP revision

<sup>22</sup> PNM San Juan Generating Station BART Analysis Update, February 11, 2011. NMED exhibit 7t of the 2011 RH

SCR.<sup>23</sup> We note that costs for SCR and SNCR options are in 2013 dollars and annualized over 30 years, while all remaining control options are in 2010 dollars and annualized over 20 years.

Because the rate of inflation between 2013 and 2010 was minimal (1.07 percent), the costs are comparable.

**Table 2. New Mexico’s Analysis of the Impacts and Cost-Effectiveness of NO<sub>x</sub>**

**Control Technologies**

Control Technology	Emission Limit lb/MMBtu	NO <sub>x</sub> Emissions (tpy)	NO <sub>x</sub> Reduction (tpy)	Total Capital Investment (TCI) (1,000\$)	Total Annualized Cost (TAC) (1,000\$)	Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)	Energy Impacts (1,000\$)	Non-Air Impacts (1,000\$)
<b>Unit 1</b>									
SCR + sorbent	0.05	690	3,450	180,862	22,165	6,425	6,749	746	NA <sup>1</sup>
SNCR/SCR Hybrid	0.18	2,484	1,656	110,683	16,816	10,154	35,917	706	1,762
ROFA/Rotamix	0.20	2,760	1,380	30,790	6,902	5,001	7,982	1,413	3
Rotamix (SNCR)	0.23	3,174	966	11,822	3,597	3,723	116	51	4
SNCR	0.23	3,174	966	17,392	5,400	5,590	80	43	NA <sup>1</sup>
ROFA	0.26	3,588	552	19,256	3,549	6,429	--	1,363	NA <sup>1</sup>
Consent Decree	0.30	4,140	1,254	14,580	1,422	1,134	NA	NA1	NA <sup>1</sup>
Pre-CD	0.43	5,394	NA	NA	NA	NA	NA	NA	NA <sup>1</sup>
<b>Unit 2</b>									
SCR + sorbent	0.05	687	3,433	203,360	24,562	7,157	7,755	729	NA <sup>1</sup>
SNCR/SCR Hybrid	0.18	2,471	1,648	115,151	17,306	10,503	37,887	346	1,762
ROFA/Rotamix	0.20	2,746	1,373	30,790	6,902	5,027	8,024	1,413	3
Rotamix (SNCR)	0.23	3,158	961	11,822	3,597	3,742	117	51	4
SNCR	0.23	3,158	961	17,392	5,400	5,618	80	43	NA <sup>1</sup>
ROFA	0.26	3,570	549	19,256	3,549	6,462	--	1,363	NA <sup>1</sup>

SIP revision

<sup>23</sup> Table 2 was constructed by PNM to incorporate costs due to sorbent injection, as a means of SO<sub>3</sub> control in conjunction with SCR. This was done by PNM in response to a request by NMED. As NMED notes in its BART analysis, it understands there are SCR catalysts now on the market that are capable of a much smaller SO<sub>2</sub> to SO<sub>3</sub> conversion. Furthermore, our analysis contained in the TSD to the FIP and the FIP indicate that anticipated SO<sub>3</sub> emissions to be much lower than estimated by PNM and finds that sorbent injection is not necessary. The TSD for our FIP, “Visibility Modeling for BART Determination: San Juan Generating Station, New Mexico,” and the proposed and final FIP are available in the docket to our FIP and also included in the docket for this action.

Consent Decree	0.30	4,119	2,060	14,126	1,378	669	NA	NA <sup>1</sup>	NA <sup>1</sup>
Pre-CD	0.45	6,179	NA	NA	NA	NA	NA	NA	NA <sup>1</sup>
<b>Unit 3</b>									
SCR + sorbent	0.05	1,072	5,359	264,208	32,585	6,080	6,313	1,107	NA <sup>1</sup>
SNCR/SCR Hybrid	0.18	3,859	2,572	178,759	26,604	10,342	39,171	507	2,658
ROFA/Rotamix	0.20	4,287	2,144	35,724	9,810	4,576	7,498	2,810	5
Rotamix (SNCR)	0.23	4,931	1,501	13,919	4,988	3,324	-378	84	5
SNCR	0.23	4,931	1,501	17,163	8,224	5,480	-578	51	NA <sup>1</sup>
ROFA	0.26	5,574	857	22,081	5,231	6,100	--	2,725	NA <sup>1</sup>
Consent Decree	0.30	6,431	2,573	12,715	1,240	482	NA	NA <sup>1</sup>	NA <sup>1</sup>
Pre-CD	0.42	9,004	NA	NA	NA	NA	NA	NA	NA <sup>1</sup>
<b>Unit 4</b>									
SCR + sorbent	0.05	1,052	5,257	235,940	29,508	5,613	5,623	1,102	NA <sup>1</sup>
SNCR/SCR Hybrid	0.18	3,786	2,524	171,412	25,808	10,226	38,034	507	2,658
ROFA/Rotamix	0.20	4,206	2,103	35,724	9,810	4,664	7,643	2,810	5
Rotamix (SNCR)	0.23	4,837	1,472	13,919	4,988	3,388	-385	84	5
SNCR	0.23	4,837	1,472	17,163	8,224	5,587	-590	51	NA <sup>1</sup>
ROFA	0.26	5,468	841	22,081	5,231	6,218	--	2,725	NA <sup>1</sup>
Consent Decree	0.30	6,309	2,524	12,870	1,256	498	NA	NA <sup>1</sup>	NA <sup>1</sup>
Pre-CD	0.42	8,833	NA	NA	NA	NA	NA	NA	NA <sup>1</sup>

<sup>1</sup> PNM performed an impact analysis for these technologies and incorporated any monetized energy or non-air environmental impacts into the cost analysis.

The 2013 RH SIP revision includes a new analysis to inform the State's BART determination and its weighing of the statutory factors for BART. This analysis contemplates three scenarios, SCR on all four units, SNCR on all four units, and the State Alternative, which includes unit shutdowns and SNCR on the remaining operating units. Table 3 summarizes the cost and impact analysis of the three scenarios and relies on aggregating the unit costs, as appropriate, from Table 2. The remaining useful life of the units with installed control technologies (units not being retired) was determined to be 30 years and therefore, the statutory factor of the remaining useful life of the source does not weigh in favor of any option over

another. New Mexico estimated the cost-effectiveness of the State Alternative at \$1,049/ton compared to \$6,218/ton for the four SCR scenario, and \$5,561/ton for the four SNCR scenario.

**Table 3. New Mexico’s Analysis of the Impacts and Cost-Effectiveness of the Three NO<sub>x</sub> Control Scenarios**

Control Scenario	NO <sub>x</sub> Emission Level	NO <sub>x</sub> Emissions (TPY)	NO <sub>x</sub> Emission Reduction (TPY)	Total Capital Investment (TCI) (1000\$)	Total Annualized Cost (TAC) (1000\$)	Cost Effectiveness (\$/ton)	Energy Impacts
<b>SCR All Units (FIP)</b>							
SJGS 1 – SCR	0.05	690	3,450	180,862	22,165	6,425	746
SJGS 2 – SCR	0.05	687	3,433	180,862	24,562	7,157	729
SJGS 3 – SCR	0.05	1,072	5,359	264,208	32,585	6,080	1,107
SJGS 4 – SCR	0.05	1,052	5,258	235,940	29,508	5,613	1,102
<i>Total</i>		<i>3,500</i>	<i>17,500</i>	<i>861,871</i>	<i>108,820</i>	<i>6,218</i>	<i>3,683</i>
<b>SNCR All Units (State’s 2011 BART Determination)</b>							
SJGS 1 – SNCR	0.23	3,174	966	17,392	5,400	5,590	43
SJGS 2 – SNCR	0.23	3,158	961	17,392	5,400	5,618	43
SJGS 3 – SNCR	0.23	4,931	1,501	17,163	8,224	5,480	51
SJGS 4 – SNCR	0.23	4,837	1,472	17,163	8,224	5,587	51
<i>Total</i>		<i>16,100</i>	<i>4,900</i>	<i>69,111</i>	<i>27,248</i>	<i>5,561</i>	<i>187</i>
<b>SNCR Units 1&amp;4 (State Alternative)</b>							
SJGS 1 – SNCR	0.23	3,174	966	17,392	5,400	5,590	43
SJGS 2 – retire	n/a	n/a	4,119	n/a	n/a	n/a	n/a
SJGS 3 – retire	n/a	n/a	6,431	n/a	n/a	n/a	n/a
SJGS 4 – SNCR	0.23	4,837	1,472	17,163	8,224	5,587	51
<i>Total</i>		<i>8,011</i>	<i>12,989</i>	<i>34,556</i>	<i>13,624</i>	<i>1,049</i>	<i>94</i>

New Mexico also examined the energy and non-air quality environmental impacts of the three scenarios. Compared to current operations and the four SCR and four SNCR scenarios, the State Alternative results in:

- up to a 53% decrease in water usage at the facility (from 21,000 acre-feet to 10,161 acre-feet);
- a wastewater generation reduction of up to 50%;

- reduced energy and non-air quality environmental impacts from decreased raw material usage and resource savings, including reduced limestone mining, diesel refining, carbon activation, and coal mining associated with operations at SJGS;<sup>24</sup> and
- 50% reduction in solid waste (from 1.71 million tons per year to 854,130 tons per year).

New Mexico determined that these energy and non-air quality environmental benefits weighed heavily in favor of the State Alternative over the four SCR and four SNCR scenarios. In addition to the energy and non-air quality environmental benefits outlined above, New Mexico noted that the State Alternative will also result in a substantial decrease in PM emissions from coal processing, handling, and transportation, as well as reductions in greenhouse gas emissions, mercury and other hazardous air pollutant emissions, and acid gas emissions from the facility.

#### **v. Evaluation of Visibility Impacts**

The final factor to consider in the BART analysis is the degree of visibility improvement anticipated to result from the BART control options. As part of its 2011 RH SIP revision, New Mexico submitted the initial and revised visibility modeling performed by PNM<sup>25</sup> for the SJGS that included modeled visibility impacts at the sixteen Class I Areas within 300 km of the facility. For a detailed description and our review of this modeling, see the Technical Support Document (TSD) that accompanied the proposed FIP (referred to as the “2011 EPA TSD”).<sup>26</sup> In this earlier analysis, SCR was modeled at an emission rate of 0.07 lb/MMBtu.

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<sup>24</sup> Table 23 of Appendix D of the 2013 RH SIP revision quantifies the reduction in raw material usage.

<sup>25</sup> PNM’s 2007 BART analysis and subsequent analyses are contained in NMED Exhibits 7a through 7t of the 2011 RH SIP revision.

<sup>26</sup> Technical Support Document, Visibility Modeling for BART Determination: San Juan Generating Station, New Mexico, EPA Region 6. Docket No. EPA-R06-OAR-2010-0846 and available in the docket for this action.

The PNM submitted an updated visibility analysis (see Exhibit 6 of the 2013 RH SIP revision) to New Mexico for evaluation that included revised emission rates for SO<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub>, and a revised background ammonia concentration of 1 ppb. The background ammonia concentration of 1 ppb is consistent with the background ammonia concentration used in our earlier modeling analysis and detailed in the 2011 EPA TSD. The SO<sub>2</sub> emission rate for the four SCR and four SNCR control scenarios was updated to 0.15 lb/MMBtu, consistent with the EPA modeling in support of the FIP, reflective of the emission rate determined by the EPA in its August 22, 2011, final action to be necessary to satisfy the CAA's visibility transport requirements, and set in the submitted 2011 VT SIP revision. The SO<sub>2</sub> emission rate for the State Alternative was updated to reflect the more stringent SO<sub>2</sub> limit that results from implementation of the State Alternative.<sup>27</sup> The H<sub>2</sub>SO<sub>4</sub> modeled emission rates were revised to be consistent with the estimated current emission rates calculated by the EPA and detailed in the 2011 EPA TSD. The 2013 analysis used the same modeling protocol followed by the EPA in support of the FIP and detailed in the 2011 EPA TSD. This modeling compared the three control scenarios mentioned above. These modeling scenarios are summarized in Table 21 of Appendix D of the 2013 RH SIP revision. A description of the modeling protocol used for both the analyses can be found in Appendix D of the 2013 RH SIP revision beginning at page 19. A summary of visibility modeling inputs for both analyses can be found in Tables 16 through 19 of Appendix D and in section 7.6 of Exhibit 6 of the 2013 RH SIP revision. The visibility modeling protocol and model inputs are also summarized in the 2014 EPA TSD.<sup>28</sup>

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<sup>27</sup> We note that the emission limit for SO<sub>2</sub> of 0.10 lb/MMBtu for Units 1 and 4 is effective as of March 5, 2014.

<sup>28</sup> Technical Support Document for the PNM BART Revision to the New Mexico Regional Haze State Implementation Plan and Federal Implementation Plan, April 2014. (2014 EPA TSD)

Table 4 below shows the results of New Mexico’s visibility modeling. This modeling summary depicts the visibility improvement for the 98<sup>th</sup> percentile<sup>29</sup> of modeled results over the baseline for each control scenario. In comparing the four-SCR scenario to the State Alternative, the largest average difference over three years is 0.47 dv at Mesa Verde, 0.24 dv at Canyonlands, and 0.13 dv at Weminuche. The average difference at the 13 other Class I areas is less than 0.1 dv between the two control scenarios.

**Table 4. Modeled Average Visibility Improvement of the 98<sup>th</sup> Percentile Delta-dv  
Impacts from 2001-2003**

Class I area	Distance to SJGS (km)	Improvement over Baseline			Improvement of 4 SCR over 4 SNCR	Improvement of 4 SCR over State Alternative
		4 SCR	4 SNCR	State Alternative		
Arches	222	1.30	0.48	1.23	0.82	0.07
Bandelier Wilderness	210	0.77	0.28	0.78	0.49	-0.01
Black Canyon of the Gunnison Wilderness	203	0.77	0.28	0.72	0.49	0.05
Canyonlands	170	2.02	0.64	1.78	1.38	0.24
Capitol Reef	232	0.70	0.25	0.74	0.45	-0.04
Grand Canyon	285	0.30	0.10	0.34	0.20	-0.04
Great Sand Dunes National Monument	269	0.77	0.29	0.74	0.48	0.03
La Garita Wilderness	169	1.01	0.37	0.95	0.64	0.06
Maroon Bells-Snowmass Wilderness	271	0.35	0.13	0.35	0.22	0.00
Mesa Verde	40	2.91	0.61	2.44	2.30	0.47
Pecos Wilderness	248	0.68	0.24	0.69	0.44	-0.01
Petrified Forest	213	0.26	0.11	0.29	0.15	-0.03
San Pedro Parks Wilderness	155	1.38	0.47	1.29	0.91	0.09
West Elk Wilderness	216	0.87	0.31	0.79	0.56	0.08
Weminuche Wilderness	98	1.55	0.47	1.42	1.08	0.13
Wheeler Peak Wilderness	258	0.64	0.25	0.67	0.39	-0.03

<sup>29</sup> The visibility analysis focuses on the 98<sup>th</sup> percentile of modeled results to avoid giving undue weight to any extreme results. See 70 FR 39121.

In accordance with section 169A of the CAA, the RHR, and the BART Guidelines, New Mexico weighed the five statutory factors in comparing the State Alternative against the four-SCR and four-SNCR control scenarios. New Mexico concluded that the State Alternative results in significant visibility benefits that are comparable to the four-SCR scenario of the FIP and much greater than the four-SNCR scenario, while also reducing overall energy and non-air quality environmental impacts at a much lower capital expenditure, annualized costs, and average cost-effectiveness. As a result, New Mexico selected the State Alternative as BART. New Mexico determined that the schedule provided in the 2013 RH SIP revision will result in the implementation of BART as expeditiously as practicable, as required under 40 CFR 51.308(e)(1)(iv). New Mexico selected a NO<sub>x</sub> BART emission limit, achievable through installation and operation of an SNCR retrofit on Units 1 and 4 and the shutdown of units 2 and 3, which can be found in the preconstruction permit at A112C. In accordance with the Term Sheet, the permit requires:

- Fifteen (15) months after the EPA final approval of the SIP revision, but no earlier than January 31, 2016, the PNM will complete installation of SNCR technology on the SJGS Units 1 and 4 and comply with an average nitrogen oxide (NO<sub>x</sub>) emission limit for Units 1 and 4 of 0.23 lb/MMBtu on a daily rolling 30-day average basis.
- Retirement of SJGS Units 2 and 3 by December 31, 2017.

#### **B. Our Evaluation of New Mexico's NO<sub>x</sub> BART Determination**

The FIP that became effective on September 21, 2011 previously established NO<sub>x</sub> BART for SJGS at the emission rate of 0.05 lb/MMBtu on a 30 boiler operating day average, achievable through installation and operation of an SCR retrofit on all four units (76 FR 52388; August 22,

2011).<sup>30</sup> At the outset, we note that the NO<sub>x</sub> BART determination for the SJGS that was submitted by New Mexico to replace the FIP cannot be disapproved solely on the basis that it differs from the determination established in the FIP. The CAA defines a FIP as “a plan (or portion thereof) promulgated by the Administrator to fill all or a portion of a gap or otherwise correct all or a portion of an inadequacy in a [SIP].” CAA section 302(y). Because a FIP is intended as a gap-filling measure, the EPA encourages states to submit approvable SIP revisions that correct the deficiencies that a given FIP remedied. Such a SIP revision need not adopt the same suite of control options and techniques as the EPA’s FIP, nor does it necessarily have to be as stringent as the EPA’s FIP in all instances. Rather, when a State submits a SIP revision to the EPA with the intention of replacing a FIP, the EPA must approve the SIP revision so long as the SIP revision does not “interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirement of [the Act].” CAA section 110(l). In regards to regional haze SIPs and the statutory requirement to make BART determinations for certain older major stationary sources, the EPA must approve a State’s SIP revision so long as the State complies with the CAA’s visibility protection provisions, the RHR, and the BART Guidelines,<sup>31</sup> and makes a reasonable control determination based on the weighing of the five factors. We have analyzed New Mexico’s new NO<sub>x</sub> BART determination with these requirements in mind.

We propose to conclude that New Mexico has met the requirements of 40 CFR 51.309(d)(4)(vii) and the BART Guidelines in determining NO<sub>x</sub> BART for SJGS. This

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<sup>30</sup> The proposed FIP, the TSD, and Final Rule are added to the docket for this rule making. These records contain significant technical analyses that we consider available to commenters for this proposed action on the State’s submittal.

<sup>31</sup> The BART determination for SJGS, as a fossil-fuel fired power plant having a total generating capacity greater than 750 megawatts, must be made pursuant to the BART Guidelines. CAA section 169A(b)(2).

conclusion is based on our review of the 2013 RH SIP revision, including the applicable permit conditions and all supporting analyses identified above. We also propose to withdraw the FIP requirements pertaining to regional haze and rescind the emission limits for NO<sub>x</sub> and H<sub>2</sub>SO<sub>4</sub>,<sup>32</sup> as well as the accompanying compliance schedule that would otherwise apply to SJGS. Upon final approval of the 2013 RH SIP revision, the FIP requirements may be withdrawn through a separate Administrator-signed final action. Additionally, our final approval action will moot the 2011 RH SIP revision concerning the four-SNCR scenario.

New Mexico's revised BART determination includes a control scenario proposed by PNM that includes the shutdown of two of the four units at the SJGS by December 31, 2017. As such, the control scenario in this analysis is different than the control scenarios contemplated in the FIP. Although the EPA's regulations do not require states to consider a fuel switch or a shutdown of an existing unit as part of their BART analyses, a state may include such options in its analysis where a company voluntarily offers such measures as a strategy for reducing emissions. As discussed previously, New Mexico determined that the State Alternative was NO<sub>x</sub> BART for the SJGS. New Mexico made this determination based on an analysis of the five BART factors. Their analysis of the five BART factors included consideration of the high incremental cost-effectiveness and low incremental visibility improvement of the FIP compared with the State Alternative, as well as the additional non-air quality environmental and energy benefits of the latter. The energy and non-air quality environmental impacts, such as reduced solid waste generation, waste water generation, and water and energy usage, associated with the

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<sup>32</sup> Since we are proposing to approve the State Alternative that does not include SCR operation, we are also proposing to withdraw the H<sub>2</sub>SO<sub>4</sub> emission limit in the FIP as it is no longer necessary to protect visibility impairment from the facility due to emissions of H<sub>2</sub>SO<sub>4</sub>.

State Alternative scenario support the conclusion that the State Alternative is BART.<sup>33</sup> New Mexico also noted additional air quality benefits associated with shutting down Units 2 and 3. While important, these other air quality benefits, such as reduced ozone and PM formation, reduced greenhouse gases, and reduced mercury deposition, are not among the BART factors, and were not considered in our evaluation of the State's NOx BART determination.

While the BART Guidelines require states to analyze visibility improvement on a facility-wide basis,<sup>34</sup> states have typically analyzed the costs of compliance and other BART factors for each individual emission unit that comprises the BART-eligible source. Nevertheless, we do not interpret the BART Guidelines as requiring states to use this approach with regards to analyzing the other BART factors. Instead, we believe that states have the flexibility to analyze these factors on either a unit-specific or facility-wide basis, depending on the unique facts of each case. Here, we believe that New Mexico's decision to evaluate the BART factors on a facility-wide basis was a reasonable way to take into account the visibility, energy, and non-air quality environmental benefits associated with unit shutdowns. Had New Mexico used a unit-specific approach, these benefits would have been discounted altogether, which would unfairly prevent states and sources from considering unit shutdowns as a viable strategy for achieving BART. New Mexico's approach is also consistent with the State's separate objective to meet the good-neighbor requirement of the CAA for visibility, i.e., to ensure that collective emissions from the SJGS are not interfering with other states' measures to protect visibility.

#### **i. Visibility Analysis**

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<sup>33</sup> [T]he State must take into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. 40 CFR 51.308(e)(1)(ii)(A).

<sup>34</sup> The BART Guidelines state that "you must conduct a visibility improvement determination for the *source(s)* as part of the BART determination." 40 CFR pt. 51, app. Y, section IV.D.5 (emphasis added).

We reviewed the CALPUFF modeling that supported the visibility impact analysis in the 2013 RH SIP revision. The revised CALPUFF modeling followed a modeling protocol consistent with the EPA guidance and recommendations, as well as the modeling performed by the EPA in support of the FIP. Modeled emission rates were revised to reflect SCR control efficiency evaluated in our FIP analysis, as well as the sulfuric acid emission rate estimated using the EPA's methodology as described in the 2011 EPA TSD. Please see Appendix D and Exhibit 6 of the 2013 RH SIP revision, and the EPA's TSDs for more details concerning the modeling inputs, model results, and New Mexico's evaluation. We note that New Mexico modeled the visibility improvement from the State Alternative by including the additional SO<sub>2</sub> reductions attributable to the implementation of the State Alternative, but did not include those reductions in the other modeling scenarios.<sup>35</sup> While we have some concerns with the appropriateness of including SO<sub>2</sub> reductions from Units 1 and 4 in one of the NO<sub>x</sub> BART control options analyzed, rather than as part of the facility's baseline emissions, we note that the visibility benefits associated with the State Alternative are predominately due to NO<sub>x</sub> reductions resulting from installation of SNCR and the significant emission reductions associated with the shutdown of Units 2 and 3. As a result, we do not think the inclusion of these additional SO<sub>2</sub> emission reductions meaningfully impact our evaluation of the visibility benefits of the evaluated control scenarios.

The modeling results indicate the largest differences in average 98<sup>th</sup> percentile impacts over the three modeled years between the four-SCR scenario and the State Alternative are 0.47 dv at Mesa Verde, 0.24 dv at Canyonlands, and 0.13 dv at Weminuche. The average difference at the 13 other Class I areas is less than 0.1 dv between the two control scenarios. The largest

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<sup>35</sup> The SO<sub>2</sub> emission limit of 0.10 lb/MMBtu for Units 1 and 4 is effective as of March 5, 2014.

differences in maximum impacts over the three modeled years are 0.47 dv at Mesa Verde, 0.42 dv at Canyonlands, 0.29 dv at Weminuche, and 0.24 dv at Arches. An analysis of the difference in the average number of days with impacts greater than 0.5 dv and 1 dv shows that the State Alternative results in nine fewer days with impacts greater than 0.5 dv at Mesa Verde, but five more days with impacts greater than 1.0 dv. The number of days with impacts greater than 0.5 dv and 1 dv are summarized in the table below. Eleven Class I areas show no difference in the number of impacted days over 1 dv between the four-SCR scenario and the State Alternative. The modeled average number of days impacted over 0.5 dv between these two scenarios is 1 day or less for 11 of the Class I areas examined, with several Class I areas experiencing fewer days over the 0.5 dv threshold under the State Alternative control scenario.

**Table 5. Average number of days impacted over 0.5 and 1.0 dv**

Class I area	Average number of days impacted over 0.5 dv			Average number of days impacted over 1 dv		
	4 SCR	State Alternative	Difference	4 SCR	State Alternative	Difference
Arches	13	14	-1	5	8	-3
Bandelier Wilderness	6	7	-1	1	1	0
Black Canyon of the Gunnison Wilderness	4	6	-2	1	1	0
Canyonlands	23	22	1	8	10	-2
Capitol Reef	6	6	0	2	2	0
Grand Canyon	2	2	0	0	0	0
Great Sand Dunes National Monument	3	4	-1	1	1	0
La Garita Wilderness	7	9	-2	0	2	-2
Maroon Bells-Snowmass Wilderness	0	0	0	0	0	0
Mesa Verde	109	100	9	45	50	-5
Pecos Wilderness	4	4	0	0	0	0
Petrified Forest	1	0	1	0	0	0
San Pedro Parks Wilderness	19	19	0	5	5	0
West Elk Wilderness	3	6	-3	0	1	-1
Weminuche Wilderness	35	41	-6	4	5	-1
Wheeler Peak Wilderness	4	3	1	0	0	0

New Mexico found, and we agree, that the four-SCR scenario in the FIP results in only slightly more visibility benefit than the State Alternative at a few of the examined Class I areas when both modeled improvement at each Class I area and number of days with significant impacts are considered. For many of the Class I Areas, the difference in visibility impacts between the two scenarios is negligible. While we have some concern with the modeled visibility differences between the two control scenarios for Mesa Verde and Canyonlands, we propose to find that the State's decision to select the State Alternative was ultimately reasonable, especially considering the costs of compliance and the energy and non-air quality environmental impacts of the two scenarios.

## **ii. Cost Analysis**

We also reviewed the cost-effectiveness analysis submitted with the 2013 RH SIP revision. The BART Guidelines require enhanced documentation to justify costs that significantly deviate from known costs of recent retrofits and to justify departures from the Control Cost Manual.<sup>36</sup> We note that the FIP originally concluded that the PNM had not provided the requisite justification or documentation for a variety of cost items in their previous cost analyses. In this instance, the cost evaluation included with the 2013 RH SIP revision is limited to the 2013 PNM Report submitted as Exhibit 6 of the 2013 RH SIP revision and the Sargent and Lundy SNCR and SCR Cost Estimates<sup>37</sup> report, submitted as Appendix C of Exhibit 6. New Mexico has not provided any additional documentation in the record for the various line items in its updated SCR cost estimates. Therefore, as a general matter, we cannot conclude that certain line items in SCR cost estimates are well supported. In particular, some of our more

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<sup>36</sup> See 70 FR 39168 and 39166 n.15.

<sup>37</sup> Public Service of New Mexico San Juan Generating Station Units 1, 2, 3 & 4, SNCR and SCR Cost Estimates, Final Report, Sargent and Lundy, March 29, 2013.

significant areas of concern are: inclusion of costs for a sorbent injection system, how the cost of the balanced draft system was assigned to SCR costs, assumptions for the amounts of fees and contingencies that account for almost 35% of the total project cost, and some of the assumptions supporting the design of the SCR box and projected catalyst demands.

While we continue to have concerns with the updated cost analysis for SCR in the 2013 RH SIP revision, we do not believe that these concerns render New Mexico's determination unreasonable. Even if we were to use the cost of the four-SCR scenario estimated by the EPA in support of the FIP (\$345 million for installation of SCR on all four units), there is a large difference between the four-SCR scenario and the State Alternative, which is estimated to cost \$34.5 million. Moreover, the small difference in visibility benefits between the two scenarios and the environmental and energy benefits of the State Alternative continue to support the State's determination that the State Alternative is BART. New Mexico came to a similar conclusion when considering cost estimates provided by the National Park Service (NPS), which found that the four-SCR scenario would cost approximately \$374 million.<sup>38</sup> Many of our concerns with New Mexico's SCR cost estimates either are not applicable to its SNCR cost estimates (e.g., sorbent injection and balanced draft) or have a much smaller impact on the total estimated cost. Capital costs comprise a relatively small portion of the total cost of SNCR, where the bulk of the annual costs are due to the cost of sorbent. Consequently, we have chosen to rely on New Mexico's cost estimates for SNCR.

New Mexico estimated the annualized cost of the State Alternative to be \$13,624,000/yr to reduce NO<sub>x</sub> emissions by 12,989 tons/yr, resulting in a cost-effectiveness of \$1,049/ton. New Mexico estimated the annualized cost of the four-SCR scenario to be \$108,820,000/yr to reduce

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<sup>38</sup> See NMED response to comments from the NPS available as NMED Exh. 14 of the 2013 RH SIP revision.

NO<sub>x</sub> emissions by 17,500 tons/yr, resulting in a cost-effectiveness of \$6,218/ton. The incremental cost-effectiveness to achieve the additional reduction of 4511 tons/yr between the two scenarios is \$21,103/ton. If we use the costs for SCR from our FIP, then the annualized cost of the four-SCR scenario becomes \$39,265,670/yr, resulting in an incremental cost-effectiveness of \$5,684/ton. The latter incremental cost-effectiveness value is in the range of costs that states and the EPA have found to be reasonable in other regional haze actions. Nevertheless, when these costs are considered in combination with the other BART factors, including the marginal visibility benefits of the four-SCR scenario at most Class I areas and the unique energy and non-air quality environmental benefits associated with the State Alternative, we propose to find that the State made a reasonable determination.

### **iii. EPA's Conclusion**

In conclusion, we propose to find that when cost, energy and non-air quality environmental impacts, and anticipated visibility benefits are taken into consideration, New Mexico's determination that the State Alternative is BART is reasonable. The State Alternative results in substantial visibility benefits and energy and non-air quality environmental benefits, and is highly cost-effective. The incremental visibility benefit of the four-SCR scenario of the FIP over the State Alternative is small at most Class I areas, and New Mexico reasonably concluded that this small additional visibility benefit did not justify the increase in costs associated with installation of SCR on all four units. We propose to approve New Mexico's 2013 RH SIP revision, including the 2013 permit conditions found at A112C that set the emission limits for Units 1 and 4, provide the methodologies for calculating the two units' emission rates and showing compliance, require the shutdown of Units 2 and 3, and establish the testing and monitoring requirements, and we propose to rescind the FIP requirements for NO<sub>x</sub> BART. Upon

final approval, the FIP requirements addressing NO<sub>x</sub> BART for the SJGS, including the H<sub>2</sub>SO<sub>4</sub> emission limit,<sup>39</sup> may be withdrawn through a separate Administrator-signed final action.

Additionally, our final approval action will moot the portions of the 2011 RH SIP revision not related to the State Alternative.

#### **IV. Our Analysis of New Mexico's Interstate Visibility Transport SIP Provisions**

We are also proposing to approve the 2011 VT SIP revision, as revised in 2013, as addressing the “good neighbor” provisions of CAA section 110(a)(2)(D)(i) for the 1997 8-hour ozone NAAQS and the PM<sub>2.5</sub> NAAQS with respect to visibility. In developing its 2011 VT SIP revision, as revised in 2013, New Mexico took note that the EPA's FIP had articulated that the Western Regional Air Partnership (WRAP) regional planning organization (RPO) assumptions for the SJGS of 0.27 – 0.28 lbs/MMBtu for NO<sub>x</sub> and 0.15 lbs/MMBtu for SO<sub>2</sub> were the appropriate criteria for approvability of a visibility transport SIP and that New Mexico sources other than the SJGS are sufficiently controlled to eliminate interference with the visibility programs of other states because the federally enforceable emission limits for these sources are consistent with those relied upon in the WRAP modeling. In developing their regional haze SIPs, New Mexico and other member states collaborated through the WRAP. Each state developed its regional haze SIP and RPGs based on the WRAP modeling and technical analysis. The WRAP modeling was based in part on the emissions reductions each state intended to achieve by 2018. As explained in the proposed and final FIP notices, we believe that the analysis conducted by the WRAP provides an appropriate means to ensure that emissions from sources in New Mexico are not interfering with the visibility programs of other states, as contemplated in CAA section

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<sup>39</sup> As earlier noted, because we are proposing to approve the State Alternative that does not include SCR operation, we are also proposing to withdraw the H<sub>2</sub>SO<sub>4</sub> emission limit in the FIP, as it is no longer necessary to prevent visibility impairment from the facility due to emissions of H<sub>2</sub>SO<sub>4</sub>.

110(a)(2)(D)(i)(II). In developing their visibility projections using photochemical grid modeling, the WRAP states assumed a certain level of emissions from sources within New Mexico. The EPA's finalized FIP required a 0.15 lbs/MMBtu limit for SO<sub>2</sub> for SJGS, but required a more stringent control of 0.05 lbs/MMBtu for NO<sub>x</sub> in order to satisfy the NO<sub>x</sub> BART requirements for the SJGS.

The 2011 VT SIP revision, as revised in 2013, discusses the WRAP modeling, uses the legal rationale relying upon the reductions assumed in the WRAP modeling, and determines that all sources are sufficiently controlled. It includes a revised 2013 permit for the SJGS reflecting that the State Alternative requires installation of SNCR at Units 1 and 4 at SJGS, with a limit of 0.23 lbs/MMBtu for NO<sub>x</sub>, and the shutdown of Units 2 and 3 in 2017. These emission limits for the SJGS will well exceed the WRAP assumptions relied upon by other states. The 2011 VT SIP revision, as revised in 2013 also provides that SO<sub>2</sub> emissions for the SJGS will be controlled at the level of 0.10 lbs/MMBtu at Units 1 and 4, further reducing visibility impairment.

We are proposing to approve the 2011 VT SIP revision, as revised in 2013, thereby finding that (1) emissions from all sources in New Mexico and (2) the SO<sub>2</sub> and NO<sub>x</sub> emission limits for units 1 and 4 combined with the shutdown of units 2 and 3 as contained in the 2013 preconstruction permit for the SJGS at A112C, prevent SO<sub>2</sub> and NO<sub>x</sub> emissions from New Mexico sources from interfering with the visibility programs of other states. Therefore, we are proposing to withdraw the provisions of the FIP that address SO<sub>2</sub> and NO<sub>x</sub> emissions for the SJGS for the purpose of meeting the "good neighbor" requirements of CAA Section 110(a)(2)(D)(i)(II) with respect to visibility. Upon final approval of the 2011 Visibility Transport SIP revision, as revised in 2013, the FIP requirements pertaining to SO<sub>2</sub> and NO<sub>x</sub> emissions for visibility transport may be withdrawn through a separate Administrator-signed final action.

Additionally, our final approval action approving Scenario C in section A112 of the permit as a source-specific SIP revision into the New Mexico SIP for RH and Visibility Transport will moot scenarios A and B in the permit.

## **V. EPA's Analysis of 110(l)**

Section 110(l) of the CAA states that “[t]he Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement of this chapter.” 42 U.S.C.

7410(l). The EPA does not interpret section 110(l) to require a full attainment or maintenance demonstration before any changes to a SIP may be approved. Generally, a SIP revision may be approved under section 110(l) if the EPA finds that it will at least preserve status quo air quality, particularly where the pollutants at issue are those for which an area has not been designated nonattainment.

We do not believe an approval, as proposed, will interfere with the CAA requirements for BART or for preventing interference with other states' programs to protect visibility because our proposal is supported by an evaluation that those CAA requirements are met. An approval will not result in any substantive changes to the BART requirements or other CAA requirements, and the SJGS units will continue to be subject to the CAA requirements for BART. The SIP replaces a federal determination that was based on different underlying facts. We also believe that approval of the submitted SIP revision will not interfere with attainment and maintenance of the NAAQS. The submitted SIP revision, if approved, will reduce emissions from the current levels. The area has not been designated nonattainment for any of the national ambient air quality standards and all monitors in the area are currently monitoring attainment of the standards. Moreover, the SIP revision being approved here will result in reduced NO<sub>x</sub> emissions over

current levels and thus result in reduced ozone levels in an area that already is meeting the ozone standard. In addition, the State's plan, because of the shutdown of two units and the lower allowed SO<sub>2</sub> emissions from the remaining units, will result in less SO<sub>2</sub> emissions than our FIP. Thus, approval of the State's plan will not contribute to conditions of nonattainment or interfere with maintenance of any standard.

## **VI. EPA's Conclusions and Proposed Action**

The EPA is proposing to approve the NO<sub>x</sub> BART determination for the SJGS included in the 2013 RH SIP revision and the accompanying permit conditions at A112C (as described below). This conclusion is based on our review of the 2013 RH SIP revision, including its applicable permit conditions, and technical data and supporting analyses in it and the 2011 RH SIP revision that pertain to the 2013 NO<sub>x</sub> BART determination.<sup>40</sup> If fully approved by the EPA, the State Alternative supersedes the State's previous NO<sub>x</sub> BART determination included in the 2011 RH SIP revision, and the EPA's duty to act on the 2011 RH SIP revision's NO<sub>x</sub> BART determination becomes moot.

The EPA is also proposing to approve the 2011 Visibility Transport SIP revision, as revised in 2013, that includes the accompanying revised 2013 permit conditions at A112C for the SJGS (as described below) because they adequately address the "good neighbor" provisions of CAA section 110(a)(2)(D)(i) for the 1997 8-hour ozone NAAQS and the PM<sub>2.5</sub> NAAQS with respect to visibility. If Scenario C in section A112 of the permit is fully approved into the New Mexico SIP as a source-specific SIP revision to meet the RH and Visibility Transport CAA requirements, scenarios A and B in the permit become moot.

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<sup>40</sup> We are not proposing action on the 2011 NO<sub>x</sub> BART determinations or materials relating to the 2011 determination that have no bearing on the 2013 NO<sub>x</sub> BART determination--such items will be moot and no longer require action if the rulemaking for proposed approval is finalized as today proposed.

As required by Section 110(a)(2)(A) which requires SIPs to have enforceable emissions limitations necessary or appropriate to meet the applicable requirements of the Act, New Mexico has incorporated emissions limits and requirements for unit shutdowns into a 2013 preconstruction permit that was submitted as part of the SIP revision. Specifically, we are proposing to approve as a source-specific requirement of the New Mexico SIP for regional haze and visibility transport, section A112C of the 2013 SJGS permit into the New Mexico SIP. The fuller permit contains three independent scenarios under section A112: A, B and C. Under the terms of the permit as explained in the background section of the permit, Scenario C becomes effective upon the EPA approval of the 2013 RH SIP. Section A112 provides that when one scenario is effective, the other two scenarios are moot. If we finalize our approval, Scenario C requires, among other things, the SO<sub>2</sub> emission limit of 0.10 lb/MMBtu and the NO<sub>x</sub> emission limit of 0.23 lb/MMBtu for Units 1 and 4 of the SJGS, and the shutdown of Units 2 and 3 by December 31, 2017.<sup>41</sup> If New Mexico wishes to revise any portion of the permit's A112C, other than making the emission limits more stringent, it must adopt and submit the permit change as a revision to the New Mexico SIP.

We are proposing to withdraw the FIP, but note that the finalization of the withdrawal must follow a finalized approval of the 2013 RH SIP revision and the 2011, as revised in 2013, Visibility Transport SIP revision and be accomplished via a separate Administrator-signed action. The EPA is taking this action under section 110 and part C of the CAA.

## **VII. Statutory and Executive Order Reviews**

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<sup>41</sup> The permit, by its language, further requires the SJGS to diligently seek non-EPA regulatory approvals to shut down the units by the prescribed date. The PNM's efforts to get necessary regulatory approvals may be a consideration in any potential enforcement action should the shutdowns not be accomplished by the end of 2017.

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing the SIP submissions, the EPA's role is to act on state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law.

**A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review**

This proposed action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

**B. Paperwork Reduction Act**

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq*, because this proposed SIP action under section 110 of the CAA will not in-and-of itself create any new information collection burdens but simply approves or disapproves certain State requirements for inclusion into the SIP. Burden is defined at 5 CFR 1320.3(b).

**C. Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) a small business as defined by the

Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant impact on a substantial number of small entities. This rule does not impose any requirements or create impacts on small entities. This proposed SIP action under section 110 of the CAA will not in-and-of itself create any new requirements but simply approves or disapproves certain State requirements for inclusion into the SIP. Accordingly, it affords no opportunity for the EPA to fashion for small entities less burdensome compliance or reporting requirements or timetables or exemptions from all or part of the rule. The fact that the CAA prescribes that various consequences (e.g., emission limitations) may or will flow from this action does not mean that the EPA either can or must conduct a regulatory flexibility analysis for this action. Therefore, this action will not have a significant economic impact on a substantial number of small entities.

We continue to be interested in the potential impacts of this proposed rule on small entities and welcome comments on issues related to such impacts.

#### **D. Unfunded Mandates Reform Act**

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for state, local, or tribal governments or the private sector." The EPA has determined that the proposed action does not include a Federal mandate that may result in estimated costs of \$100 million or more to either state, local, or tribal governments in the aggregate, or to the private sector. This action proposes

to approve or disapprove pre-existing requirements under state or local law, and imposes no new requirements. Accordingly, no additional costs to state, local, or tribal governments, or to the private sector, result from this action.

#### **E. Executive Order 13132, Federalism**

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires the EPA to develop an accountable process to ensure “meaningful and timely input by state and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

This proposed action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely approves or disapproves certain state requirements for inclusion into the SIP and does not alter the relationship or the distribution of power and responsibilities established in the CAA. Thus, Executive Order 13132 does not apply to this action.

#### **F. Executive Order 13175, Coordination with Indian Tribal Governments**

This proposed action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP submittals the EPA is proposing to approve or disapprove would not apply in Indian country located in the state, and the EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. Thus,

Executive Order 13175 does not apply to this action. Consistent with the EPA policy the EPA nonetheless is offering consultation to tribes regarding this rulemaking action. The EPA will respond to relevant comments in the final rulemaking action.

#### **G. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks**

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. This proposed action is not subject to Executive Order 13045 because it is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997). This proposed SIP action under section 110 of the CAA will not in-and-of itself create any new regulations but simply approves or disapproves certain state requirements for inclusion into the SIP.

#### **H. Executive Order 13211, Actions that Significantly Affect Energy Supply, Distribution or Use**

This proposed action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

#### **I. National Technology Transfer and Advancement Act**

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law 104-113, section 12(d) (15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical

standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs the EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

The EPA believes that this proposed action is not subject to requirements of Section 12(d) of the NTTAA because application of those requirements would be inconsistent with the CAA.

**J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

The EPA lacks the discretionary authority to address environmental justice in this proposed action. In reviewing SIP submissions, the EPA's role is to approve or disapprove state choices, based on the criteria of the CAA. Accordingly, this action merely proposes to approve or disapprove certain state requirements for inclusion into the SIP under section 110 of the CAA and will not in-and-of itself create any new requirements. Accordingly, it does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxides, Visibility, Interstate transport of pollution, RH, Best available control technology.

**AUTHORITY:** 42 U.S.C. 7401 *et seq.*

Dated: April 30, 2014.

**Ron Curry,**

*Regional Administrator, Region 6.*

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