

**Case No. 12-71523**

**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

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WILDEARTH GUARDIANS,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Respondent,

THE STATE OF NEVADA, DIVISION OF ENVIRONMENTAL PROTECTION,

Intervenor,

NEVADA POWER COMPANY and SIERRA POWER COMPANY,

Intervenors.

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**PETITIONER'S OPENING BRIEF**

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JAMES JAY TUTCHTON  
CA Bar #150908  
WildEarth Guardians  
6439 E. Maplewood Avenue  
Centennial, CO 80111  
(720) 301-3843  
jtutchton@wildearthguardians.org

*Attorney for Petitioner*

MELISSA ANNE HAILEY  
CO Bar # 42836  
W. Randolph Barnhart, P.C.  
50 S. Steele Street, Suite 500  
Denver, CO 80209  
(303) 377-6700  
mhailey@rbarnhartlaw.com

*Application for Attorney  
Admission pending*

**CORPORATE DISCLOSURE STATEMENT**

Pursuant to Fed. R. App. Pro. 26.1, Petitioner WildEarth Guardians states through undersigned counsel that it has no parent corporations and does not issue stock. Therefore, there is no publicly held corporation that owns 10% of its stock.

s/ James Jay Tutchton

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## GLOSSARY OF TERMS

BART	Best available retrofit technology. “An emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility.” 40 C.F.R. § 51.301.
CAA	Clean Air Act of 1963, 42 U.S.C. §§ 7401 <u>et seq.</u>
CAMD	Clean Air Markets Division. A division of EPA that measures and reports pollutant emissions from regulated sources.
Class I Area	Mandatory Class I Federal Area. Certain National Parks and Wilderness Areas, for which states must set RPGs to address regional haze under the CAA.
Deciview	“A measurement of visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired.” 40 C.F.R. § 51.301.
EPA	The Environmental Protection Agency.
FIP	Federal Implementation Plan. A plan developed and implemented by EPA governing how a state, which has failed to comply with the requirements of the CAA in developing a SIP, is to carry out various provisions of the CAA.
Glide Path	The line of incremental visibility improvement in a particular Class I Area obtained through the URP from baseline visibility conditions to natural visibility conditions in 2064.
lbs/MMBtu	Pounds per million British thermal units. The rate used to measure pollutant emissions and set BART emission limitations.

NAAQS	National Ambient Air Quality Standards. Standards, the attainment and maintenance of which are requisite to protect public health and welfare. EPA has established NAAQS for six major air pollutants, which are codified at 40 C.F.R. Part 50.
RPG	Reasonable progress goal. An interim goal (expressed in deciviews) toward achieving natural visibility conditions in a particular Class I Area by 2064.
SIP	State implementation plan. A document created by each state to attain NAAQS and implement other CAA requirements.
URP	Uniform rate of progress. The uniform degree of visibility improvement (expressed in deciviews) needed over time to achieve natural visibility conditions in a particular Class I Area by 2064.
WRAP	Western Regional Air Partnership. An organization commissioned by EPA to help western states prepare their Regional Haze SIPs.

## INTRODUCTION

Congress enacted the Clean Air Act (“CAA”), 42 U.S.C. §§ 7401, et seq., to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(d)(1). To this end, the CAA directs the U.S. Environmental Protection Agency (“EPA”) to identify and set air quality standards for those emissions that “cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.” Id. § 7408(a)(1)(A). EPA has set National Ambient Air Quality Standards (“NAAQS”) for six criteria air pollutants: sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), ozone (O<sub>2</sub>), carbon monoxide (CO), and lead (Pb). See 40 C.F.R. §§ 50.1 – 50.17.

In 1977, Congress enacted sweeping revision of the CAA, adding Section 169A, which set “as a national goal[,] the prevention of any future, and the remedying of any existing, impairment of visibility in Mandatory Class I Federal Areas which impairment results from manmade air pollution.” 42 U.S.C. § 7491(a)(1).<sup>1</sup> EPA has since identified two types of pollution leading to visibility impairment: 1) discrete emissions “relatable to a single source or small group of

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<sup>1</sup> Mandatory Class I Federal Areas (“Class I Areas”) include all International Parks, National Wilderness Areas and National Memorial Parks larger than 5,000 acres, and National Parks larger than 6,000 acres. See 42 U.S.C. §§ 7472 and 7491(g)(5).

sources, i.e., “plume blight;” and 2) “widespread, regionally homogenous haze from a multitude of sources which impairs visibility in every direction over a large area,” i.e., “regional haze.” 45 Fed. Reg. 80084, 80085 (1980). Regional haze is caused primarily by the emission of SO<sub>2</sub>, NO<sub>x</sub>, and PM from inadequately controlled sources. See 64 Fed. Reg. 35714, 35715 (1999). These emissions, which impair visibility by scattering and absorbing light, “can cause serious health effects and mortality in humans, and contribute to environmental effects such as acid deposition and eutrophication.” Id.

Also since the addition of Section 169A, EPA has identified 156 Class I Areas where regional haze must be reduced. See 40 C.F.R. §§ 81.401 – 81.437.<sup>2</sup> In 1999 – more than 20 years after the addition of Section 169A – EPA finally implemented a National Program to address regional haze in these Class I Areas. See generally 64 Fed. Reg. 35714 (“Regional Haze Rule”); 40 C.F.R. § 51.308 (“Regional Haze Program Requirements”). The goal of the Regional Haze Program is to restore natural visibility conditions to all 156 Class I Areas by 2064. See 64 Fed. Reg. at 35732; 40 C.F.R. § 51.308(d)(1)(i)(B).

To achieve this goal, the Regional Haze Program requires each state to develop and periodically revise a State Implementation Plan (“SIP”) focused on

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<sup>2</sup> These include such national treasures as Grand Canyon, Yellowstone, Yosemite, Zion, and Rocky Mountain National Parks.

increasing visibility both in that state's Class I Areas and in the Class I Areas of neighboring states, which are impaired by that state's pollution. See generally 64 Fed. Reg. 35714; 40 C.F.R. § 51.308. The purpose of each SIP is "to ensure the prevention of any future impairment of visibility, and to conduct further analyses to determine whether additional emission reduction measures are needed to ensure reasonable progress in remedying existing impairment in downwind Class I Areas." 64 Fed. Reg. at 35722; 40 C.F.R. § 51.300(b)(3). EPA required each state to submit for federal review its first regional haze SIP by December 17, 2007. See 40 C.F.R. § 51.308(b).

In accordance with the CAA's cooperative federalism approach, so long as a state's SIP is legally adequate, the state dictates its own strategy for reducing regional haze. See generally 42 U.S.C. § 7410(a)(2). A SIP is legally adequate if it contains, with regard to each applicable Class I Area, an analysis of, and supporting documentation for: 1) goals that provide for reasonable progress towards achieving natural visibility conditions; 2) calculations of baseline and natural visibility conditions; 3) a long-term strategy for addressing regional haze visibility impairment; 4) a monitoring strategy for measuring, characterizing, and reporting regional haze; and 5) emission limitations representing the Best Available Retrofit Technology ("BART") for sources of pollution impairing visibility. See 42 U.S.C. § 7491(b); 40 C.F.R. §§ 51.308(d) and (e).

EPA must reject any SIP that does not meet the statutory and regulatory requirements of Section 169A and/or interferes with the state's attainment of any NAAQS. See 42 U.S.C. §§ 7410(k) and (l); 40 C.F.R. § 52.02(a). If EPA disapproves a SIP, or makes a finding that a state has failed to timely submit a SIP, it must within two years develop a Federal Implementation Plan ("FIP") governing the non-complying state's haze reduction. See 42 U.S.C. § 7410(c).

Petitioner WildEarth Guardians ("Guardians") herein challenges EPA's approval of the State of Nevada's Regional Haze SIP.<sup>3</sup> The Nevada SIP, which was submitted to EPA almost two years after the 2007 submission deadline, fails to reasonably calculate or ensure reasonable progress towards attaining natural visibility in the State's only Class I Area and sets without proper analysis an emission limitation at a heavy-polluting coal-fired power plant, which does not represent BART, but rather allows increased pollution. In its approval of the Nevada SIP, EPA not only overlooked the State's noncompliance with the requirements of Section 169A and the Regional Haze Rule, but failed to analyze the impact of this SIP on Nevada's maintenance and/or attainment of NAAQS. EPA's approval of the Nevada SIP and concomitant failure to develop a FIP must be held unlawful.

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<sup>3</sup> The Nevada Division of Environmental Protection ("NDEP"), a Respondent-Intervenor in this action, authored the SIP on behalf of the State of Nevada. Guardians refers to NDEP simply as "Nevada" throughout this brief.

Proper implementation of Section 169A is crucial to ensure that visibility protection both within and outside of the State of Nevada is effectively achieved. The purpose of this Petition is to safeguard public health and the environment so that each receives the protections intended by Congress when amending the CAA to create the Regional Haze Program.

### **JURISDICTIONAL STATEMENT**

The CAA gives EPA the authority to approve, disapprove, or require modification of a SIP. See 42 U.S.C. § 7410(k); 50 C.F.R. § 52.02. The CAA gives this Court jurisdiction to review final EPA actions, including SIP approvals. See 42 U.S.C. § 7607(b)(1). The CAA requires Petitioners to file a Petition for Review within 60 days of EPA's Notice of Final Action. Id. EPA published its approval of the Nevada SIP on March 26, 2012. See 77 Fed. Reg. 17334 (2012). Guardians timely filed its Petition for Review on May 17, 2012. See Dkt. 1-2. The Court therefore has jurisdiction to resolve Guardians' Petition.

### **STATEMENT OF THE ISSUES**

1. Whether EPA abused its discretion by approving the Nevada SIP when it does not comply with the requirements of 40 C.F.R. § 51.308(d)(1) for calculating and setting a "worst days" RPG toward achieving natural visibility conditions at the Jarbridge Wilderness, the State's only Class I Area. EPA's approval of Nevada's SIP is published at 77 Fed. Reg. 17334 (2012) and located in



the record at AR C-3 [JA \_\_\_\_]. This Court reviews EPA's approval of the Nevada SIP under the standard set forth at 42 U.S.C. § 7607(d)(9)(A) (court can reverse any rulemaking "found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

2. Whether EPA abused its discretion by approving the Nevada SIP when it does not comply with the requirements of 40 C.F.R. § 51.308(e) for setting an emission limitations for SO<sub>2</sub> at the Reid Gardner Generating Station, which does not represent BART. EPA's approval of Nevada's SIP is at 77 Fed. Reg. 17334 and AR C-3 [JA \_\_\_\_]. This Court reviews EPA's approval of the Nevada SIP under the standard set forth at 42 U.S.C. § 7607(d)(9)(A).

3. Whether EPA abused its discretion by approving the Nevada SIP without considering whether the SIP will interfere with Nevada's attainment and/or maintenance of any NAAQS. EPA's approval of Nevada's SIP is at 77 Fed. Reg. 17334 and AR C-3 [JA \_\_\_\_]. This Court reviews EPA's approval of the Nevada SIP under the standard set forth at 42 U.S.C. §7607(d)(9)(A).

4. Whether EPA abused its discretion by choosing not to develop a FIP when Nevada's tardy SIP fails to comply with Section 169A and its implementing regulations. EPA's Finding of Failure to Submit SIP is at 74 Fed. Reg. 2392 (2009) and located in the record at AR A-4 [JA \_\_\_\_]. EPA's approval of Nevada's SIP is at 77 Fed. Reg. 17334 and AR C-3 [JA \_\_\_\_]. This Court reviews

EPA's choice to not develop a FIP under the standard set forth at 42 U.S.C. §7607(d)(9)(A).

Pursuant to Circuit Rule 28-2.7, all pertinent statutes, regulations, and rules are set forth verbatim and with appropriate citation in an Addendum directly following the Statement of Related Cases at the end of this brief. See p. 46, infra.

### **STATEMENT OF THE CASE**

In October 2009, Nevada submitted its Regional Haze SIP to EPA. See generally AR B-1 [JA \_\_\_ ] (“the Nevada SIP”). The SIP sets forth, inter alia, what Nevada considers to be reasonable progress goals (“RPGs”) for attaining by 2064 natural visibility conditions at the Jarbridge Wilderness, the State’s sole Class I Area, and emission limitations representing BART for SO<sub>2</sub>, NO<sub>x</sub>, and PM for several sources, including the Reid Gardner Generating Station (“Reid Gardner”), a heavy-polluting coal-fired power plant.

EPA proposed to approve the Nevada SIP in June 2011. See generally 76 Fed. Reg. 36450 (2011); AR C-1 [JA \_\_\_ ]. Guardians submitted timely comments alerting EPA to CAA violations in the determination of both Nevada’s “worst days” RPG for Jarbridge and the BART for SO<sub>2</sub> at Reid Gardner. See generally AR D-12 [JA \_\_\_ ]. Guardians commented, inter alia, that: 1) Nevada’s process for determining the “worst days” Jarbridge RPG failed to consider factors mandated by the CAA, ignored available sources of pollution reduction, and relied

on erroneous data; 2) Nevada's BART determination for SO<sub>2</sub> at Reid Gardner actually allows increased emissions, and thus does not comply with the CAA; 3) EPA had failed to determine whether approval of the Nevada SIP would interfere with Nevada's attainment and/or maintenance of NAAQS, as the CAA requires; and 4) given that EPA found in 2009 that Nevada had failed to timely submit a Regional Haze SIP, such legal inadequacies placed an affirmative duty on EPA to develop a FIP.

Over Guardians' objections, EPA did not develop a FIP, but instead approved the majority of the Nevada SIP on March 26, 2012. See generally 77 Fed. Reg. 17334; AR C-3 [JA \_\_\_\_].<sup>4</sup> For the reasons identified in Guardians' comments, EPA's approval of the Nevada SIP is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. See 42 U.S.C. § 7607(d)(9)(A). Guardians therefore respectfully requests that this Court set aside EPA's approval of Nevada's Regional Haze SIP and concomitant decision to not develop a FIP, and remand this matter to the agency for further action in compliance with the CAA.

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<sup>4</sup> EPA approved all portions of the Nevada SIP except Nevada's BART determination for NO<sub>x</sub> emissions at Reid Gardner. EPA deferred approval of the NO<sub>x</sub> issue to some future time. See id.

## STATEMENT OF RELEVANT LAW

The CAA takes a “cooperative federalism” approach to controlling air pollution, providing states the primary authority to implement federal requirements through the development of SIPs. See e.g., MacClarence v. EPA, 596 F.3d 1123, 1125 (9<sup>th</sup> Cir.2010). EPA’s role is to review each state’s SIP to ensure its adequacy under the CAA. See 42 U.S.C. § 7410(k)(3) (providing that EPA shall approve or disapprove each SIP submission). It is only when a SIP falls short or when a state fails entirely to submit a SIP that EPA is charged with filling in regulatory gaps by promulgating a FIP. See 42 U.S.C. § 7410(c)(1).

### **I. The Regional Haze SIP Requirement**

While states have long been required to submit SIPs concerning CAA implementation generally, it was not until 2007 that states were required to revise their SIPs to account for regional haze reduction in Class I Areas. See 40 C.F.R. § 51.308(b). Under the Regional Haze Program, each state must submit and periodically revise a regional haze SIP containing a long-term strategy that includes those measures necessary to achieve RPGs for each Class I Area. See id. § 51.308(d)(3). See also generally AR A-9 [JA \_\_\_\_ ] (EPA Guidance for Setting RPGs Under the Regional Haze Program). States must consider major and minor stationary sources, mobile sources, and area sources in developing their long-term strategies. See AR A-9 at 1-2 [JA \_\_\_\_ ]. In addition, each regional haze SIP must

contain either emission limitations representing BART for all BART-eligible sources<sup>5</sup> or alternative measures that provide for greater reasonable progress than BART. See 40 C.F.R. § 51.308(e); A-9 at 1-2 [JA \_\_\_\_ ].

Each state's first regional haze SIP must cover an implementation period running through 2018. See 40 C.F.R. § 51.308(f). States must then update their regional haze SIPs every ten years. See id. EPA has issued guidance for states on how to properly develop regional haze SIPs. See generally, e.g., A-2 [JA \_\_\_\_ ] (Guidelines for BART Determinations); A-9 [JA \_\_\_\_ ] (Guidance for Setting RPGs).

**A. Reasonable Progress Goals (“RPGs”)**

An RPG is an interim goal toward achieving natural visibility conditions by 2064 in each of a state's Class I Areas. See 42 U.S.C. § 7491; 40 C.F.R. § 51.308(d)(1). RPGs, which are expressed in deciviews,<sup>6</sup> must provide for an

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<sup>5</sup> A “BART-eligible source” is a stationary source from any of 26 specified categories, which became operational between 1962 and 1977, and which has the potential to emit 250 tons per year or more of any air pollutant. See 40 C.F.R. § 51.301.

<sup>6</sup> A deciview is an “atmospheric haze index that indicates changes in visibility. This visibility metric expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Because each unit change in deciview represents a common change in perception, the deciview scale is like the decibel scale for sound... A one deciview change in haziness is a small but noticeable change in haziness under most circumstances when viewing scenes in Class I Areas.” 64 Fed. Reg. at 35725. See also 40 C.F.R. § 51.301 (codified definition).

improvement in visibility for the Class I Areas' most impaired days and ensure no degradation in visibility for the Class I Areas' least impaired days over the period of time covered by the SIP. See 40 C.F.R. § 51.308(d)(1).

In establishing an RPG, a state must determine the “emission limits, schedules of compliance, and other measures as may be necessary to make reasonable progress” toward achieving natural visibility for Class I Areas. 42 U.S.C. § 7491(b)(2). In so doing, a state must consider the four following “RPG Factors”: 1) the costs of compliance; 2) the time necessary for compliance; 3) the energy and non-air quality environmental impacts of compliance; and 4) the remaining useful life of any potentially affected sources. See id. § 7491(g)(1); 40 C.F.R. § 51.308(d)(1)(i)(A). Importantly, each SIP must contain an explanation of how the state considered the RPG Factors when determining emission limits and other measures to improve visibility. See id.

Additionally, in establishing an RPG, a state must analyze and determine the rate of progress needed to attain natural visibility conditions by 2064. See 40 C.F.R. § 51.308(d)(1)(i)(B). To calculate this rate, the state compares baseline visibility conditions<sup>7</sup> to natural visibility conditions<sup>8</sup> in the relevant Class 1 Areas.

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<sup>7</sup> The baseline for each Class I Area is the average visibility in deciviews for the 20 percent most impaired days, or “worst days,” and for the 20 percent least impaired days, or “best days,” for the years 2000 through 2004. Using available monitoring data for the 2000 to 2004 time period, each state must calculate the baseline by averaging the annual values in deciviews for the 20 percent worst days in each year

## INTRODUCTION

Congress enacted the Clean Air Act (“CAA”), 42 U.S.C. §§ 7401, et seq., to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(d)(1). To this end, the CAA directs the U.S. Environmental Protection Agency (“EPA”) to identify and set air quality standards for those emissions that “cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.” Id. § 7408(a)(1)(A). EPA has set National Ambient Air Quality Standards (“NAAQS”) for six criteria air pollutants: sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), ozone (O<sub>2</sub>), carbon monoxide (CO), and lead (Pb). See 40 C.F.R. §§ 50.1 – 50.17.

In 1977, Congress enacted sweeping revision of the CAA, adding Section 169A, which set “as a national goal[,] the prevention of any future, and the remedying of any existing, impairment of visibility in Mandatory Class I Federal Areas which impairment results from manmade air pollution.” 42 U.S.C. § 7491(a)(1).<sup>1</sup> EPA has since identified two types of pollution leading to visibility impairment: 1) discrete emissions “relatable to a single source or small group of

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<sup>1</sup> Mandatory Class I Federal Areas (“Class I Areas”) include all International Parks, National Wilderness Areas and National Memorial Parks larger than 5,000 acres, and National Parks larger than 6,000 acres. See 42 U.S.C. §§ 7472 and 7491(g)(5).

sources, i.e., “plume blight;” and 2) “widespread, regionally homogenous haze from a multitude of sources which impairs visibility in every direction over a large area,” i.e., “regional haze.” 45 Fed. Reg. 80084, 80085 (1980). Regional haze is caused primarily by the emission of SO<sub>2</sub>, NO<sub>x</sub>, and PM from inadequately controlled sources. See 64 Fed. Reg. 35714, 35715 (1999). These emissions, which impair visibility by scattering and absorbing light, “can cause serious health effects and mortality in humans, and contribute to environmental effects such as acid deposition and eutrophication.” Id.

Also since the addition of Section 169A, EPA has identified 156 Class I Areas where regional haze must be reduced. See 40 C.F.R. §§ 81.401 – 81.437.<sup>2</sup> In 1999 – more than 20 years after the addition of Section 169A – EPA finally implemented a National Program to address regional haze in these Class I Areas. See generally 64 Fed. Reg. 35714 (“Regional Haze Rule”); 40 C.F.R. § 51.308 (“Regional Haze Program Requirements”). The goal of the Regional Haze Program is to restore natural visibility conditions to all 156 Class I Areas by 2064. See 64 Fed. Reg. at 35732; 40 C.F.R. § 51.308(d)(1)(i)(B).

To achieve this goal, the Regional Haze Program requires each state to develop and periodically revise a State Implementation Plan (“SIP”) focused on

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<sup>2</sup> These include such national treasures as Grand Canyon, Yellowstone, Yosemite, Zion, and Rocky Mountain National Parks.



increasing visibility both in that state's Class I Areas and in the Class I Areas of neighboring states, which are impaired by that state's pollution. See generally 64 Fed. Reg. 35714; 40 C.F.R. § 51.308. The purpose of each SIP is "to ensure the prevention of any future impairment of visibility, and to conduct further analyses to determine whether additional emission reduction measures are needed to ensure reasonable progress in remedying existing impairment in downwind Class I Areas." 64 Fed. Reg. at 35722; 40 C.F.R. § 51.300(b)(3). EPA required each state to submit for federal review its first regional haze SIP by December 17, 2007. See 40 C.F.R. § 51.308(b).

In accordance with the CAA's cooperative federalism approach, so long as a state's SIP is legally adequate, the state dictates its own strategy for reducing regional haze. See generally 42 U.S.C. § 7410(a)(2). A SIP is legally adequate if it contains, with regard to each applicable Class I Area, an analysis of, and supporting documentation for: 1) goals that provide for reasonable progress towards achieving natural visibility conditions; 2) calculations of baseline and natural visibility conditions; 3) a long-term strategy for addressing regional haze visibility impairment; 4) a monitoring strategy for measuring, characterizing, and reporting regional haze; and 5) emission limitations representing the Best Available Retrofit Technology ("BART") for sources of pollution impairing visibility. See 42 U.S.C. § 7491(b); 40 C.F.R. §§ 51.308(d) and (e).

EPA must reject any SIP that does not meet the statutory and regulatory requirements of Section 169A and/or interferes with the state's attainment of any NAAQS. See 42 U.S.C. §§ 7410(k) and (l); 40 C.F.R. § 52.02(a). If EPA disapproves a SIP, or makes a finding that a state has failed to timely submit a SIP, it must within two years develop a Federal Implementation Plan ("FIP") governing the non-complying state's haze reduction. See 42 U.S.C. § 7410(c).

Petitioner WildEarth Guardians ("Guardians") herein challenges EPA's approval of the State of Nevada's Regional Haze SIP.<sup>3</sup> The Nevada SIP, which was submitted to EPA almost two years after the 2007 submission deadline, fails to reasonably calculate or ensure reasonable progress towards attaining natural visibility in the State's only Class I Area and sets without proper analysis an emission limitation at a heavy-polluting coal-fired power plant, which does not represent BART, but rather allows increased pollution. In its approval of the Nevada SIP, EPA not only overlooked the State's noncompliance with the requirements of Section 169A and the Regional Haze Rule, but failed to analyze the impact of this SIP on Nevada's maintenance and/or attainment of NAAQS. EPA's approval of the Nevada SIP and concomitant failure to develop a FIP must be held unlawful.

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<sup>3</sup> The Nevada Division of Environmental Protection ("NDEP"), a Respondent-Intervenor in this action, authored the SIP on behalf of the State of Nevada. Guardians refers to NDEP simply as "Nevada" throughout this brief.

Proper implementation of Section 169A is crucial to ensure that visibility protection both within and outside of the State of Nevada is effectively achieved. The purpose of this Petition is to safeguard public health and the environment so that each receives the protections intended by Congress when amending the CAA to create the Regional Haze Program.

### **JURISDICTIONAL STATEMENT**

The CAA gives EPA the authority to approve, disapprove, or require modification of a SIP. See 42 U.S.C. § 7410(k); 50 C.F.R. § 52.02. The CAA gives this Court jurisdiction to review final EPA actions, including SIP approvals. See 42 U.S.C. § 7607(b)(1). The CAA requires Petitioners to file a Petition for Review within 60 days of EPA's Notice of Final Action. Id. EPA published its approval of the Nevada SIP on March 26, 2012. See 77 Fed. Reg. 17334 (2012). Guardians timely filed its Petition for Review on May 17, 2012. See Dkt. 1-2. The Court therefore has jurisdiction to resolve Guardians' Petition.

### **STATEMENT OF THE ISSUES**

1. Whether EPA abused its discretion by approving the Nevada SIP when it does not comply with the requirements of 40 C.F.R. § 51.308(d)(1) for calculating and setting a "worst days" RPG toward achieving natural visibility conditions at the Jarbridge Wilderness, the State's only Class I Area. EPA's approval of Nevada's SIP is published at 77 Fed. Reg. 17334 (2012) and located in

the record at AR C-3 [JA \_\_\_\_]. This Court reviews EPA's approval of the Nevada SIP under the standard set forth at 42 U.S.C. § 7607(d)(9)(A) (court can reverse any rulemaking "found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

2. Whether EPA abused its discretion by approving the Nevada SIP when it does not comply with the requirements of 40 C.F.R. § 51.308(e) for setting an emission limitations for SO<sub>2</sub> at the Reid Gardner Generating Station, which does not represent BART. EPA's approval of Nevada's SIP is at 77 Fed. Reg. 17334 and AR C-3 [JA \_\_\_\_]. This Court reviews EPA's approval of the Nevada SIP under the standard set forth at 42 U.S.C. § 7607(d)(9)(A).

3. Whether EPA abused its discretion by approving the Nevada SIP without considering whether the SIP will interfere with Nevada's attainment and/or maintenance of any NAAQS. EPA's approval of Nevada's SIP is at 77 Fed. Reg. 17334 and AR C-3 [JA \_\_\_\_]. This Court reviews EPA's approval of the Nevada SIP under the standard set forth at 42 U.S.C. §7607(d)(9)(A).

4. Whether EPA abused its discretion by choosing not to develop a FIP when Nevada's tardy SIP fails to comply with Section 169A and its implementing regulations. EPA's Finding of Failure to Submit SIP is at 74 Fed. Reg. 2392 (2009) and located in the record at AR A-4 [JA \_\_\_\_]. EPA's approval of Nevada's SIP is at 77 Fed. Reg. 17334 and AR C-3 [JA \_\_\_\_]. This Court reviews

EPA's choice to not develop a FIP under the standard set forth at 42 U.S.C. §7607(d)(9)(A).

Pursuant to Circuit Rule 28-2.7, all pertinent statutes, regulations, and rules are set forth verbatim and with appropriate citation in an Addendum directly following the Statement of Related Cases at the end of this brief. See p. 46, infra.

### **STATEMENT OF THE CASE**

In October 2009, Nevada submitted its Regional Haze SIP to EPA. See generally AR B-1 [JA \_\_\_ ] (“the Nevada SIP”). The SIP sets forth, inter alia, what Nevada considers to be reasonable progress goals (“RPGs”) for attaining by 2064 natural visibility conditions at the Jarbridge Wilderness, the State’s sole Class I Area, and emission limitations representing BART for SO<sub>2</sub>, NO<sub>x</sub>, and PM for several sources, including the Reid Gardner Generating Station (“Reid Gardner”), a heavy-polluting coal-fired power plant.

EPA proposed to approve the Nevada SIP in June 2011. See generally 76 Fed. Reg. 36450 (2011); AR C-1 [JA \_\_\_ ]. Guardians submitted timely comments alerting EPA to CAA violations in the determination of both Nevada’s “worst days” RPG for Jarbridge and the BART for SO<sub>2</sub> at Reid Gardner. See generally AR D-12 [JA \_\_\_ ]. Guardians commented, inter alia, that: 1) Nevada’s process for determining the “worst days” Jarbridge RPG failed to consider factors mandated by the CAA, ignored available sources of pollution reduction, and relied

on erroneous data; 2) Nevada's BART determination for SO<sub>2</sub> at Reid Gardner actually allows increased emissions, and thus does not comply with the CAA; 3) EPA had failed to determine whether approval of the Nevada SIP would interfere with Nevada's attainment and/or maintenance of NAAQS, as the CAA requires; and 4) given that EPA found in 2009 that Nevada had failed to timely submit a Regional Haze SIP, such legal inadequacies placed an affirmative duty on EPA to develop a FIP.

Over Guardians' objections, EPA did not develop a FIP, but instead approved the majority of the Nevada SIP on March 26, 2012. See generally 77 Fed. Reg. 17334; AR C-3 [JA \_\_\_\_].<sup>4</sup> For the reasons identified in Guardians' comments, EPA's approval of the Nevada SIP is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. See 42 U.S.C. § 7607(d)(9)(A). Guardians therefore respectfully requests that this Court set aside EPA's approval of Nevada's Regional Haze SIP and concomitant decision to not develop a FIP, and remand this matter to the agency for further action in compliance with the CAA.

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<sup>4</sup> EPA approved all portions of the Nevada SIP except Nevada's BART determination for NO<sub>x</sub> emissions at Reid Gardner. EPA deferred approval of the NO<sub>x</sub> issue to some future time. See id.

## STATEMENT OF RELEVANT LAW

The CAA takes a “cooperative federalism” approach to controlling air pollution, providing states the primary authority to implement federal requirements through the development of SIPs. See e.g., MacClarence v. EPA, 596 F.3d 1123, 1125 (9<sup>th</sup> Cir.2010). EPA’s role is to review each state’s SIP to ensure its adequacy under the CAA. See 42 U.S.C. § 7410(k)(3) (providing that EPA shall approve or disapprove each SIP submission). It is only when a SIP falls short or when a state fails entirely to submit a SIP that is EPA is charged with filling in regulatory gaps by promulgating a FIP. See 42 U.S.C. § 7410(c)(1).

### **I. The Regional Haze SIP Requirement**

While states have long been required to submit SIPs concerning CAA implementation generally, it was not until 2007 that states were required to revise their SIPs to account for regional haze reduction in Class I Areas. See 40 C.F.R. § 51.308(b). Under the Regional Haze Program, each state must submit and periodically revise a regional haze SIP containing a long-term strategy that includes those measures necessary to achieve RPGs for each Class I Area. See id. § 51.308(d)(3). See also generally AR A-9 [JA \_\_\_\_ ] (EPA Guidance for Setting RPGs Under the Regional Haze Program). States must consider major and minor stationary sources, mobile sources, and area sources in developing their long-term strategies. See AR A-9 at 1-2 [JA \_\_\_\_ ]. In addition, each regional haze SIP must

contain either emission limitations representing BART for all BART-eligible sources<sup>5</sup> or alternative measures that provide for greater reasonable progress than BART. See 40 C.F.R. § 51.308(e); A-9 at 1-2 [JA \_\_\_\_ ].

Each state’s first regional haze SIP must cover an implementation period running through 2018. See 40 C.F.R. § 51.308(f). States must then update their regional haze SIPs every ten years. See id. EPA has issued guidance for states on how to properly develop regional haze SIPs. See generally, e.g., A-2 [JA \_\_\_\_ ] (Guidelines for BART Determinations); A-9 [JA \_\_\_\_ ] (Guidance for Setting RPGs).

#### **A. Reasonable Progress Goals (“RPGs”)**

An RPG is an interim goal toward achieving natural visibility conditions by 2064 in each of a state’s Class I Areas. See 42 U.S.C. § 7491; 40 C.F.R. § 51.308(d)(1). RPGs, which are expressed in deciviews,<sup>6</sup> must provide for an

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<sup>5</sup> A “BART-eligible source” is a stationary source from any of 26 specified categories, which became operational between 1962 and 1977, and which has the potential to emit 250 tons per year or more of any air pollutant. See 40 C.F.R. § 51.301.

<sup>6</sup> A deciview is an “atmospheric haze index that indicates changes in visibility. This visibility metric expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Because each unit change in deciview represents a common change in perception, the deciview scale is like the decibel scale for sound... A one deciview change in haziness is a small but noticeable change in haziness under most circumstances when viewing scenes in Class I Areas.” 64 Fed. Reg. at 35725. See also 40 C.F.R. § 51.301 (codified definition).



improvement in visibility for the Class I Areas' most impaired days and ensure no degradation in visibility for the Class I Areas' least impaired days over the period of time covered by the SIP. See 40 C.F.R. § 51.308(d)(1).

In establishing an RPG, a state must determine the “emission limits, schedules of compliance, and other measures as may be necessary to make reasonable progress” toward achieving natural visibility for Class I Areas. 42 U.S.C. § 7491(b)(2). In so doing, a state must consider the four following “RPG Factors”: 1) the costs of compliance; 2) the time necessary for compliance; 3) the energy and non-air quality environmental impacts of compliance; and 4) the remaining useful life of any potentially affected sources. See id. § 7491(g)(1); 40 C.F.R. § 51.308(d)(1)(i)(A). Importantly, each SIP must contain an explanation of how the state considered the RPG Factors when determining emission limits and other measures to improve visibility. See id.

Additionally, in establishing an RPG, a state must analyze and determine the rate of progress needed to attain natural visibility conditions by 2064. See 40 C.F.R. § 51.308(d)(1)(i)(B). To calculate this rate, the state compares baseline visibility conditions<sup>7</sup> to natural visibility conditions<sup>8</sup> in the relevant Class 1 Areas.

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<sup>7</sup> The baseline for each Class I Area is the average visibility in deciviews for the 20 percent most impaired days, or “worst days,” and for the 20 percent least impaired days, or “best days,” for the years 2000 through 2004. Using available monitoring data for the 2000 to 2004 time period, each state must calculate the baseline by averaging the annual values in deciviews for the 20 percent worst days in each year

See AR A-9 at 2-1 [JA \_\_\_\_ ]. By so doing, the state can determine the uniform rate of progress (“URP”) that must be maintained during each implementation period in order to attain natural conditions by 2064. See id.

A URP may be charted by drawing a line, known as a Glide Path, between two plotted points: one representing baseline conditions and the other representing the natural conditions desired by 2064. See AR A-9 at 2-2 [JA \_\_\_\_ ] (exemplar Glide Path). The Glide Path, which is simply a visual representation of the URP, is the track of uniform incremental visibility improvements leading to natural visibility in 2064. See 76 Fed. Reg. at 36453.

Once a state calculates a URP for a Class I Area, it must compare that URP to its RPG. See 40 C.F.R. § 51.308(d)(1)(ii). If the RPG provides for a slower rate of improvement than the rate needed to attain natural conditions by 2064, the state must demonstrate, based on the RPG Factors, both the reasonableness of its RPG and the unreasonableness of the URP. See id. The state must then “provide to the public for review” the number of years anticipated to meet natural conditions under the state’s chosen RPG. Id.

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to produce a single value that represents the baseline conditions for the worst days. The process is repeated for determining the value that represents the baseline conditions for the best days. See 64 Fed. Reg. at 35730; AR A-9 at 2-1 [JA \_\_\_\_ ].

<sup>8</sup> Natural conditions at each Class I Area are also expressed by reference to the level of visibility in deciviews for the 20 percent most impaired and least impaired days. See 64 Fed. Reg. at 35730; AR A-9 at 2-1 [JA \_\_\_\_ ].

RPGs are not directly enforceable under the CAA – that is, a state will not be penalized if its goals are not met. See 40 C.F.R. § 51.308(d)(1)(v). EPA, however, has a statutory duty to review the RPGs in each SIP to ensure the state complied with the statutory and regulatory requirements of the CAA. See 42 U.S.C. § 7410(k)(3). EPA further has a duty to itself consider the RPG factors and ensure that each of a state’s RPGs actually establish reasonable progress toward natural visibility by 2064. See 40 C.F.R. § 51.308(d)(1)(iii).

**B. Best Available Retrofit Technology (“BART”)**

In addition to reasonable progress requirements, Section 169A requires states to set a BART standard for all BART-eligible sources that “may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area.”<sup>9</sup> 42 U.S.C. § 7491(b)(2)(A); 40 C.F.R. § 51.308(e). BART is “an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility.” 40 C.F.R. § 51.301. BART is established “on a case-by-case basis” and “must be based on an analysis of the best system of continuous emission control technology

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<sup>9</sup> A BART-eligible source “causes” visibility impairment if it reduces visibility by 1.0 deciview or more. See 40 C.F.R. § 51, Appendix Y, Section III.A.1. A source “contributes” to visibility impairment if it reduces visibility by a threshold not higher than 0.5 deciviews. See id.

available and associated emission reductions achievable for each BART-eligible source.” Id.; 40 C.F.R. § 51.308(e)(1)(ii)(A).

In making a BART determination for each BART-eligible source, a state must consider the following six BART Factors: 1) the technology available; 2) the costs of compliance; 3) the energy and non-air quality environmental impacts of compliance; 4) any existing pollution control equipment in use at the source; 5) the remaining useful life of the source; and 6) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. See 42 U.S.C. § 7491(g)(2); 40 C.F.R. §§ 51.301 and 51.308(e)(1)(ii)(A). BART is ultimately established as an emission limit within a state’s SIP. 40 C.F.R. § 51, Appendix Y, Section I.C.3. The purpose of the BART requirement is to eliminate or reduce visibility impairment. See 42 U.S.C. § 7491(b)(2)(A).

To aid states in meeting BART requirements, the EPA promulgated guidelines to “determine the level of control technology that represents BART for each source.” See generally AR A-2 [JA \_\_\_\_]. For fossil-fuel fired electric generating plants in excess of 750 megawatts, these guidelines are mandatory. See id., at Section I.F.1 [JA \_\_\_\_]; 42 U.S.C. § 7491(b).

## **II. EPA Review of Regional Haze SIPs**

Under the CAA, each state assumes the primary responsibility to develop and implement a SIP that maintains the CAA’s regional haze requirements. See 42

U.S.C. §§ 7491(b)(2) (SIPs must contain “emission limits, schedules of compliance, and other measures as may be necessary” to make progress in achieving visibility goals) and 7410(a)(2)(A) (SIPs must contain “enforceable emission limitations and other control measures, means, or techniques...as may be necessary or appropriate to meet the applicable requirements of [the CAA]”).

Once a SIP is submitted, EPA’s role is to review for compliance with the CAA and its implementing regulations and to approve or disapprove accordingly. See 42 U.S.C. §§ 7410(k)(3) and 7491(b)(2); 40 C.F.R. § 52.02(a). EPA may approve only those portions of a SIP that comply with the mandates of the Regional Haze Program. See id.

EPA assumes a direct regulatory role under the Regional Haze Program only after a state has failed to do so. If EPA finds that a state has failed to submit a required regional haze SIP, or that such submission is inadequate under the CAA, EPA must develop and implement within two years of its finding or disapproval a gap-filling FIP, which will then govern how the noncompliant state will meet the requirements of the Regional Haze Program. See 42 U.S.C. § 7410(c); 40 C.F.R. § 52.02(c).

EPA may not approve a regional haze SIP that interferes with any requirement of the CAA, including a state’s attainment or maintenance of any NAAQS. See 42 U.S.C. § 7410(l); Train v. Natural Resources Defense Council

(“NRDC”), 421 U.S. 60 (1975). Accordingly, EPA must “rationally connect[] its approval of particular plan revisions...to its assessment of an area’s prospects for meeting current attainment requirements.” Hall v. EPA, 273 F.3d 1146, 1161 (9<sup>th</sup> Cir.2001), quoting Ober v. Whitman, 243 F.3d 1190, 1195 (9<sup>th</sup> Cir.2001).

## STATEMENT OF FACTS

### I. The Nevada SIP

Nevada submitted its first regional haze SIP to EPA for review on November 18, 2009, almost two years past the submission deadline. See 74 Fed. Reg. 2392 (2009) (Finding of Failure to Submit Regional Haze SIP) (located at AR A-4 [JA \_\_\_ ]); AR B-1 [JA \_\_\_ ] (the Nevada SIP). The Nevada SIP contains a long-term strategy through 2018 towards achieving natural visibility in the State’s only Class I Area, the Jarbridge Wilderness. See AR B-1 at iii [JA \_\_\_ ]. As part of that strategy, Nevada set RPGs for improving visibility at Jarbridge and established emission limitations for SO<sub>2</sub> at Reid Gardner purporting to represent BART. See id., at 5-12 [JA \_\_\_ ] and 6-15 [JA \_\_\_ ].

#### A. RPGs for the Jarbridge Wilderness

Nevada has only one Class I Area, the Jarbridge Wilderness. Located within the Humboldt National Forest in remote northeastern Nevada, the 113,167-acre Jarbridge Wilderness is the state’s first Congressionally-designated Wilderness Area. See AR B-1 at 1-2 [JA \_\_\_ ]. Visibility at Jarbridge is currently impaired

both by natural and anthropogenic sources of pollution within the State. See id., at 4-34 [JA \_\_\_\_].

Utilizing air quality models and analytical tools provided by the Western Regional Air Partnership (“WRAP”),<sup>10</sup> Nevada calculated that on the 20 percent “worst days” at Jarbridge, the baseline visibility condition is 12.07 deciviews and the natural visibility condition is 7.87 deciviews. See 76 Fed. Reg. at 36455; AR B-1 at 2-2 – 2-3 [JA \_\_\_\_]. For the 20 percent “best days,” Nevada calculated the baseline visibility condition at 2.56 deciviews and the natural visibility condition at 1.14 deciviews. See id. Nevada then used these baseline and natural visibility condition values to plot a Glide Path showing the URP needed to achieve natural visibility conditions at Jarbridge by 2064. See AR B-1 at 2-6 – 2-7 [JA \_\_\_\_]. (Figure 2-5 illustrates the URP for the Jarbridge Wilderness).

According to the WRAP data, the URP for attaining natural visibility conditions in the Jarbridge Wilderness by 2064 is an annual reduction in haziness of 0.07 deciviews. See AR B-1 at 2-6 – 2-7 [JA \_\_\_\_].<sup>11</sup> This means that in order to maintain progress along the Glide Path, Nevada must accomplish a 0.98 deciview total reduction at Jarbridge by 2018, such that conditions are 11.09

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<sup>10</sup> The WRAP is a partnership of states, tribes, and federal agencies designated by EPA to assist western states in the development of Regional Haze SIPs. See AR B-1 at 1-15 [JA \_\_\_\_].

<sup>11</sup> Each deciview represents one unit of haziness, such that the lower the deciview, the clearer the atmosphere.

deciviews at that time. See id. Using the 2018 URP goal as a guide, Nevada established its Jarbridge RPGs for 2018 at 11.05 deciviews for the worst-visibility days and 2.50 deciviews for the best-visibility days.<sup>12</sup> See AR B-1 at 6-15, Table 6-3 [JA \_\_\_\_ ].

Because the 11.05 deciview RPG represents visibility conditions slightly better than the 11.09 deciview URP, Nevada concluded that its “worst days” RPG complied with the CAA. See AR B-1 at 6-16 – 6-17 [JA \_\_\_\_ ]. Nevada reached this conclusion without considering the four RPG factors. See id., at 6-17 and 7-9 [JA \_\_\_\_ ]. Because Nevada chose not to adequately consider these mandatory factors, it failed to identify and consider pollution sources to which additional controls could be applied to reach natural visibility conditions in a more expedient manner. See generally AR B-1 [JA \_\_\_\_ ].

In April 2011, WRAP withdrew its visibility projections for 15 Class I Areas, including the Jarbridge Wilderness, after discovering an error in its data. See generally AR A-12 [JA \_\_\_\_ ] (Correction of WRAP Modeling Results). Under WRAP’s corrected data, the URP for 2018 is actually 11.01 deciviews. See id., at 11 [JA \_\_\_\_ ]; 76 Fed. Reg. at 36464, n. 18. Even though Nevada’s “worst days” RPG provides less visibility improvement than that required by 2018 under this

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<sup>12</sup> As stated at p. 11, supra, 40 C.F.R. § 51.308(d)(1) does not require improvement in the baseline condition of best-visibility days, but rather simply prohibits degradation from the baseline condition.



corrected URP, Nevada made no attempt to revise its SIP or explain how the corrected URP is unreasonable.

**B. BART for SO<sub>2</sub> Emissions at Reid Gardner**

The Nevada SIP identifies four facilities, comprising ten units, as BART-eligible sources: Nevada Energy's generating stations at Tracy (Units 1, 2, and 3), Fort Churchill (Units 1 and 2),<sup>13</sup> and Reid Gardner (Units 1, 2, and 3);<sup>14</sup> and Southern California Edison's generating station at Mohave (Units 1 and 2).<sup>15</sup> See AR B-1 at vi [JA \_\_\_\_].

Reid Gardner Generating Station is a coal-fired plant located in southern Nevada. Each year, it releases considerable amounts of haze-forming pollutants, including up to 1,020 tons of SO<sub>2</sub>, into the atmosphere. See 76 Fed. Reg. at 36459 (Table 6); AR B-1 at 5-3, Table 5-1 [JA \_\_\_\_]. As a result of its pollution, Reid Gardner causes visibility impairment at the Grand Canyon National Park in Arizona and contributes to visibility impairment at Zion National Park in Utah and Joshua Tree National Park in California. See *id.*, at 36460; AR B-1 at 5-7, Table 5-2 [JA \_\_\_\_].

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<sup>13</sup> Fort Churchill and Tracy are natural gas-fired plants, which contribute relatively small emissions. See AR B-1 at 5-11 – 5-12 [JA \_\_\_\_].

<sup>14</sup> A fourth Unit at Reid Gardner produces 257 megawatts of power, but was built in 1983, so is not subject to BART. See 76 Fed. Reg. at 36463; AR D-12, Ex. 4 [JA \_\_\_\_].

<sup>15</sup> Mohave was a coal-fired plant, but was permanently closed four months before Nevada submitted its SIP. See AR B-1 at vi, n. 1 [JA \_\_\_\_] and 5-13 – 5-14 [JA \_\_\_\_].

Without demonstrating the state's analysis of each BART Factor as applied to SO<sub>2</sub> emissions, the Nevada SIP proposes as BART an SO<sub>2</sub> emission limitation at Reid Gardner Units 1-3 of 0.15 lbs/mmBtu<sup>16</sup> per 24-hour period. See 76 Fed. Reg. 36463; AR B-1 at 7-9, n. 3 [JA \_\_\_\_ ]; AR B-3 [JA \_\_\_\_ ]. This limit goes into effect on or before January 1, 2015, and will be incorporated into the Nevada Energy Title V operating permit<sup>17</sup> over the normal course of renewal. See AR B-1 at 5-8 – 5-9 [JA \_\_\_\_ ] and 7-3 [JA \_\_\_\_ ].

While the 0.15 lb/mmBtu cap on SO<sub>2</sub> emissions is represented by Nevada as BART, Reid Gardner is already meeting emission limits that are less than half of this proposed limit. According to EPA Clean Air Markets Data (“CAMD”), Units 1-3 have for at least the last two years met annual SO<sub>2</sub> emission rates of between 0.054 and 0.064 lb/mmBtu.<sup>18</sup> See AR D-12 at 2 [JA \_\_\_\_ ] and Exhibits 1 and 2 [JA \_\_\_\_ ]; AR E.1 [JA \_\_\_\_ ].<sup>19</sup> According to Nevada's own data, SO<sub>2</sub> emissions

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<sup>16</sup> Lbs/MMBtu is a rate representing pollution emissions relative to heat input. See, e.g., 40 C.F.R. § 51, Appendix Y.

<sup>17</sup> Title V of the CAA requires states, local agencies, and/or EPA to issue legally-enforceable permits to the operators of major sources of pollution designed to improve CAA compliance by clarifying what those sources must do to control air pollution. See generally 42 U.S.C. § 7661.

<sup>18</sup> The lb/mmBtu calculation is done by multiplying tons of SO<sub>2</sub> emissions for each Unit by 2,000, then dividing that value by the total heat input from that Unit during that same year. For example, to determine the annual SO<sub>2</sub> emission rate from Unit 1 in 2010, the calculation is  $(200.5 \times 2,000) / 6,339,957 = 0.063$  lb/mmBtu.

<sup>19</sup> EPA's Record Index indicates that AR E.1 and E.2 are Excel spreadsheets containing CAMD for Reid Gardner Emissions. These spreadsheets are not yet, however, available on EPA's online docket for this case. Guardians therefore

under the BART proposed in its SIP will actually increase by 115 tons per year at Unit 1, 390 tons per year at Unit 2, and 333 tons per year at Unit 3. See AR B-1 at 5-13, Table 5-6 [JA \_\_\_\_].<sup>20</sup>

## II. EPA's Approval of the Nevada SIP

EPA proposed to approve the entirety of the Nevada SIP in June 2011. See generally 76 Fed. Reg. 36450. WildEarth Guardians, a consortium of environmental and conservation organizations, the Moapa Band of Paiutes, NDEP, the National Park Service, the U.S. Fish and Wildlife Service, and seven individuals submitted comments on EPA's proposed approval, most expressing opposition to EPA's full approval of the SIP. See 77 Fed. Reg. at 17337. WildEarth Guardians' comments outlined, inter alia, the same arguments for disapproval of the SIP, and promulgation of a FIP, contained in this Petition. See generally AR D-12 [JA \_\_\_\_].

On April 12, 2012, EPA declined to develop a FIP governing regional haze reduction in Nevada, but instead approved all portions of the Nevada SIP except its BART determination for NO<sub>x</sub> at Reid Gardner. See generally 77 Fed. Reg. 17334. Though EPA responded to Guardians' comments, it ultimately rejected concerns

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gathered this data through a query on the EPA's CAMD website:  
<http://ampd.epa.gov/ampd/>.

<sup>20</sup> Although Table 5-6 also shows conflicting WRAP data, EPA has clarified that Nevada's data differs from WRAP's because Nevada excluded invalid data. See 77 Fed. Reg. at 17338.

over the adequacy of the “worst days” RPG for the Jarbridge Wilderness and the adequacy of the BART determination for SO<sub>2</sub> at Reid Gardner. See id. at 17337 and 17338. EPA approved the Nevada SIP without a finding that it does not interfere with Nevada’s attainment of any NAAQS.

### STANDARD OF REVIEW

This Court should reverse EPA’s approval of the Nevada SIP if it finds that approval is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 42 U.S.C. § 7607(d)(9)(A). Agency action is arbitrary and capricious if the agency:

relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Manufacturers Association of U.S., Inc. v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 43 (1983). Where an agency has “failed to consider mandatory factors set forth by statute or in a regulation,” its action must be set aside. See NRDC v. EPA, 638 F.3d 1183, 1190 (9<sup>th</sup> Cir.2011).

### ARGUMENT

#### I. Guardians Has Standing to Sue

To establish standing, a party must show: 1) it has suffered an injury-in-fact, i.e., a concrete and particularized, actual or imminent invasion of a legally

protected interest; 2) the injury is fairly traceable to the challenged action of the defendant; and 3) a favorable decision will likely redress the injury. See Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-561 (1992). For the purposes of establishing injury-in-fact, a plaintiff organization's members' "reasonable concerns" of harm caused by pollution from the defendant's activities directly affect that member's recreational, aesthetic, and economic interests. Friends of the Earth v. Laidlaw Environmental Services, 528 U.S. 167, 183-184 (2000).

Guardians has standing to challenge EPA's approval of the Nevada SIP. See Declaration of Veronica Egan ("Egan Declaration"), which is attached hereto as Exhibit 1. Guardians is a non-profit environmental organization that works "to protect clean air, clear water, healthy wildlife populations and habitats, and to promote environmental protection broadly in the West." Id. at ¶ 2. Guardians has standing as an organization because: its member Ms. Egan has standing to sue in her own right; the interests at stake are germane to Guardians' purpose; and neither the claim asserted, nor the relief sought requires Ms. Egan to participate directly in this lawsuit. See Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333, 343 (1977).

Here, Ms. Egan, a long-time member of Guardians, has suffered an injury sufficient to demonstrate standing. See Egan Declaration at ¶ 2. Ms. Egan regularly visits, and will continue to visit, the State of Nevada, where she has

observed, and will continue to observe, some of the State's largest sources of air pollution, including the Reid Gardner and North Valmy coal-fired power plants. See id., at ¶ 7. It is distressing for Ms. Egan to observe this air pollution, both because it is aesthetically displeasing and because she is aware based on EPA's CAMD that these power plants release NO<sub>x</sub> and SO<sub>2</sub>, which negatively affect human health. See id., at ¶¶ 7-9.

Ms. Egan also regularly visits, and will continue to regularly visit, Class I Areas, including Zion and Grand Canyon National Parks, which are impacted by pollution from Reid Gardner and other Nevada sources. See Egan Declaration at ¶ 10. Ms. Egan has noticed over the years she has visited these Parks that the air has grown hazier, such that it is increasingly difficult to view and enjoy their scenic vistas. See id., at ¶ 11. The poor visibility at Zion and Grand Canyon National Parks diminishes her enjoyment in visiting these areas. See id.

Because EPA's approval of the Nevada Regional Haze SIP fails to enhance visibility at Class I Areas as required by the CAA, Ms. Egan's injuries are caused by EPA's action challenged herein. See Egan Declaration at ¶¶ 12-15. The requested relief would redress her injuries by promoting cleaner air in Nevada and elsewhere. See id., at ¶¶ 15-17. Specifically, if Nevada properly developed a "worst days" RPG for Jarbridge, which takes into account non-BART eligible sources of pollution like North Valmy, emissions in the state would be reduced and

Ms. Egan's concerns for her health would be lessened. See id., at ¶¶ 15-16. If Nevada properly set a BART limitation for SO<sub>2</sub> at Reid Gardner that decreased emissions, visibility at Grand Canyon and Zion National Parks would be increased and Ms. Egan's enjoyment of these areas would be preserved. See id., at ¶¶ 16-17.

Because Ms. Egan, a member of Guardians, has standing to bring this action in her own right, the organization satisfies the first element of the Supreme Court's Hunt test. Guardians also satisfies the second and third Hunt requirements because Ms. Egan's interests are germane to the organization's purpose and none of the claims Guardians asserts in its Petition for Review requires her to participate as an individual in this litigation. Guardians has therefore established its standing to sue such that this Court may turn to the merits of this action.

## **II. The Nevada SIP Does Not Comply With the CAA**

### **A. The "Worst Days" RPG for Jarbridge Does Not Meet the Requirements of Section 169A and 40 C.F.R. § 51.308(d)(1)**

Under CAA § 169A, each SIP must set "emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress" toward achieving natural visibility for Class I Areas. 42 U.S.C. § 7491(b)(2).

Both the CAA and its implementing regulations require each state to establish RPGs for each Class I Area within its borders by taking into consideration the four RPG Factors: 1) the costs of compliance; 2) the time necessary for compliance; 3) the energy and non-air quality environmental impacts of compliance; 4) and the

remaining useful life of any existing source of pollution. See id.; 40 C.F.R. § 51.308(d)(1)(i). States must furthermore demonstrate in their SIPs “how these factors were taken into consideration.” 40 C.F.R. § 51.308(d)(1)(i)(A).

If a state’s RPG provides for a slower rate of improvement than the rate needed to attain natural conditions by 2064, i.e., the URP, the state must demonstrate, based on the RPG Factors, both the reasonableness of its RPG and the unreasonableness of the URP. See 40 C.F.R. § 51.308(d)(1)(ii). The state must then “provide to the public for review” the number of years anticipated to meet natural conditions under the state’s chosen RPG. See id.

***1. Nevada Did Not Adequately Consider Any of the RPG Factors***

Nevada has identified 11.05 deciviews as its 2018 “worst days” RPG for the Jarbridge Wilderness Area. See AR B-1 at 6-15, Table 6-3 [JA \_\_\_\_]. The Nevada SIP purports to demonstrate the reasonableness of this goal at AR B-1 at 6-16 – 6-17 [JA \_\_\_\_]. After enumerating six other, non-statutorily required factors it relied on in establishing this RPG, Nevada identifies the seventh factor in its entirety as follows:

Consideration of the costs of compliance, time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and remaining useful life of existing sources that contribute to visibility impairment. In light of the 6 factors listed above, it is Nevada’s position that the costs of any additional control measures beyond those documented in this chapter and Chapter Seven are unreasonable at this time and would impose unnecessary burdens on the health and vitality of industries within



our state. Since the costs of compliance are unreasonable, no further analysis of these four factors was conducted.

AR B-1 at 6-17 [JA \_\_\_\_ ] (emphasis in original). This cursory “analysis” is inadequate under the CAA.

Under Section 169A, each state “shall” consider the RPG Factors when developing its Regional Haze SIP. 42 U.S.C. § 7491(g)(1). Nevada has no discretion to disregard this mandate. “[W]hen a statute uses the word ‘shall,’ Congress has imposed a mandatory duty upon the subject of the command.” Forest Guardians v. Babbitt, 174 F.3d 1178, 1187 (10<sup>th</sup> Cir.1998). See also Brower v. Evans, 257 F.3d 1058, 1067 (9<sup>th</sup> Cir.2001), quoting Center for Biological Diversity v. Norton, 254 F.3d 833, 837 (9<sup>th</sup> Cir.2001) and Forest Guardians, 174 F.3d at 1187 (“Shall means shall.”). Nevada’s recitation of the RPG Factors does not somehow alleviate it of this burden. See Beno v. Shalala, 30 F.3d 1057, 1075 (9<sup>th</sup> Cir.1994), quoting Getty v. Federal Savings & Loan Ins. Corp., 805 F.2d 1050, 1055 (D.C. Cir.1986) (“Stating that a factor was considered...is not a substitute for considering it.”).

Nevada’s SIP is no more compliant with EPA’s implementing regulations. Under 40 C.F.R. § 51.308(d), Nevada “must” consider the RPG Factors and “must” demonstrate how they were considered. Nowhere in the SIP does Nevada actually analyze the costs of compliance or attempt to explain how or why those costs are unreasonable or impose unnecessary burdens. See generally AR B-1 [JA \_\_\_\_ ].

Nowhere in the SIP does Nevada even attempt to consider the remaining three of the four RPG Factors. See id. Indeed, as Nevada elsewhere in the SIP candidly states:

Nevada did not take into consideration the costs of compliance; the time necessary for compliance; the energy and non-air quality environmental impacts of compliance; and the remaining useful life of any non-BART sources in establishing our RPGs for this planning period.

Id., at 7-9 [JA \_\_\_\_]. Nevada's failure to consider the four RPG Factors is a direct violation of 42 U.S.C. § 7491(g)(1) and 40 C.F.R. § 51.308(d)(1), rendering Nevada's "worst days" RPG for the Jarbridge Wilderness Area inadequate.

## **2. Nevada Did Not Consider Additional Pollution Reductions Beyond BART**

As stated above, Nevada found, based on six factors *not* required by the CAA, that the costs of any additional control measures beyond BART or existing state regulations are unreasonable. See AR B-1 at 6-17, ¶ 7 [JA \_\_\_\_], and Chapters 6 and 7 [JA \_\_\_\_] (proposing no strategies for reasonable progress beyond BART and existing Nevada regulations). Importantly however, none of the BART-eligible sources in Nevada actually contribute to regional haze at the Jarbridge Wilderness. See id., at 5-6 – 5-7, Table 5-2 [JA \_\_\_\_]. This means Nevada's "worst days" RPG for Jarbridge does not reflect any meaningful controls above and beyond what Nevada had in place prior to the development of its SIP. This mere maintenance of the status quo was not what Congress intended when

implementing the Regional Haze Program. See H.R. REP. NO. 1146, at 1 (1970), reprinted in 1970 U.S.C.C.A.N. 5356 (the purpose of the CAA is to “speed up, expand, and intensify the war against air pollution in the United States”).

As the National Park Service (“NPS”) aptly pointed out during the comment period for Nevada’s Regional Haze SIP, if the state had properly considered the four RPG Factors, it likely would have uncovered other useful control techniques that could be implemented to more quickly attain natural visibility conditions at Jarbridge. See AR B-21 [JA \_\_\_\_ ] (Letter from NPS to Nevada). Indeed, simply by considering its emissions and distance to Jarbridge, NPS was able to identify the North Valmy coal-fired powered plant in north-central Nevada as a non-BART eligible source of pollution where reasonable controls could be employed to actually make a difference in visibility at Nevada’s only Class I Area. See id.

While North Valmy is but one example of an analysis that could have made a difference for Jarbridge under the Regional Haze Program, Nevada’s failure to undertake *any* analysis of *any* reasonable controls, which could be implemented at *any* non-BART eligible source runs counter to CAA § 169A. See 42 U.S.C. § 7491(b)(2) (each SIP must set “emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress” toward achieving natural visibility for Class I Areas”). Indeed, EPA directs that once a state determines its URP, it must then determine the measures needed to achieve the

URP and consider, through the RPG Factors, whether additional improvement is possible:

If the State determines that the amount of progress identified through the [URP] analysis is reasonable based upon the statutory factors, the State should identify this amount of progress as its [RPG]...*unless it determines that additional progress beyond this amount is also reasonable.* If the State determines that additional progress is reasonable based on the statutory factors, the state should adopt that amount of progress as its goal...

64 Fed. Reg. at 35732 (located at AR A-1 [JA \_\_\_\_ ]) (emphasis added).

The determination of what additional control measures must be implemented “can only be made by a State once it has conducted the necessary technical analyses of emissions, air quality, and the other factors that go into determining reasonable progress.” 64 Fed. Reg. at 35721. EPA suggests “beginning by concentrating on possible emissions reductions of several pollutant species from a few selected source sectors, focusing on those source categories that may have the greatest impact on visibility at Class I Areas, considering cost and [the other RPG Factors].” AR A-10 at 4-1 [JA \_\_\_\_ ]. While “there are many ways to approach identifying additional reasonable measures,” states must, “at a minimum, consider the four statutory factors.” AR A-9 at 4-2 [JA \_\_\_\_ ]. Nevada’s failure to do so renders its 2018 “worst days” RPG for Jarbridge inadequate.

**3. Nevada Relied on Erroneous Data and Failed to Explain How the Corrected URP is Unreasonable**

With no proper consideration of the RPG Factors, Nevada based the “reasonableness” of its “worst days” RPG almost exclusively on the contention that it provides a greater visibility improvement at Jarbridge by 2018 than does the URP. See AR B-1 at 6-16 – 6-17 [JA \_\_\_\_ ] (comparing the 11.05 deciview RPG with the 11.09 deciview URP). Approximately six months after Nevada submitted its Regional Haze SIP to EPA, however, WRAP withdrew its 2018 URP for Jarbridge because it was based on incorrect data. See generally AR A-12 [JA \_\_\_\_ ]. WRAP replaced the 2018 Jarbridge “worst days” RPG with a new value of 11.01 deciviews. See id., at 11 [JA \_\_\_\_ ]; 76 Fed. Reg. at 36464, n. 18. Under the corrected WRAP data, Nevada’s 11.05 “worst days” RPG for Jarbridge falls above – not below – the Glide Path, meaning it provides less improvement than is required to maintain uniform progress towards natural visibility conditions by 2064. See AR B-1 at 2-7, Figure 2-5 [JA \_\_\_\_ ] (under the corrected WRAP data, the Glide Path should run through an 11.01 deciviews data point at 2018, which represents more uniform progress towards natural visibility than is achieved by Nevada’s 11.05 deciview RPG).

Nevada made no attempt in response to the corrected WRAP data to revise its SIP, explain how the corrected URP is unreasonable, and/or explain how, in light of the corrected data, its “worst days” URP remained reasonable. This failure

is not permitted by the CAA. Rather, a state may set an RPG providing for slower improvement than that achieved through the URP *only* if it demonstrates that natural visibility cannot reasonably be obtained by 2064 and that the state's RPGs are reasonable. See 40 C.F.R. § 51.308(d)(1)(ii). Additionally, the state must disclose for public review the number of years needed to obtain natural visibility under its chosen RPG. See id. Because Nevada met none of these regulatory requirements, it's "worst days" RPG for Jarbridge is inadequate.

**B. The Reid Gardner SO<sub>2</sub> BART Determination Does Not Meet the Requirements of Section 169A and 40 C.F.R. § 51.308(e)**

Both the CAA and its implementing regulations require each state to make within the context of its Regional Haze SIP a BART determination for each BART-eligible source "based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable." 40 C.F.R. § 50.308(e)(1)(ii)(A). See also 42 U.S.C. § 7491(b)(2)(A) (requiring Regional Haze SIPs to include BART determinations in accordance with forthcoming EPA regulations). The BART Factors that must be considered and documented in a SIP are: 1) the technology available; 2) the costs of compliance; 3) the energy and non-air quality environmental impacts of compliance; 4) any existing pollution control equipment in use at the source; 5) the remaining useful life of the source; and 6) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. See 42 U.S.C.

§ 7491(g)(2); 40 C.F.R. §§ 51.301 and 51.308(e)(1)(ii)(A). BART determinations and the resultant emissions limitations are made on a “case-by-case” basis, and cannot be avoided unless a state proposes an alternative to BART that actually achieves greater progress towards natural visibility conditions than could otherwise be achieved through the implementation of BART. See 40 C.F.R. §§ 51.301 and 51.308(e)(2).

***1. Nevada Did Not Adequately Consider Each BART Factor for SO<sub>2</sub> Emissions***

In its Regional Haze SIP, Nevada states:

A full BART determination was completed for the generating stations at Tracy, Fort Churchill, Reid Gardner, and Mohave. Emission limitations for BART were established on a case-by-case basis taking 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 or in existence at the source or unit, the remaining useful life of the unit and the degree of improvement in visibility which may reasonably be anticipated to result from the use of control technology.

AR B-1 at 5-8 [JA \_\_\_\_]. See also AR B-3 [JA \_\_\_\_] (documentation of BART analysis).

While this is an accurate recitation of the BART Factors, nowhere in its Regional Haze SIP does Nevada document *how* each of these factors were considered or analyzed when setting the SO<sub>2</sub> emissions limitation at Reid Gardner. See generally AR B-1 [JA \_\_\_\_]; AR B-3 [JA \_\_\_\_]. Just as with Nevada’s cursory “analysis” of the RPG Factors discussed above, this conclusory statement that the

state complied with CAA in determining BART is inadequate. Instead, the state “must...include documentation for all required analysis.” 40 C.F.R. § 51.308(e)(1). Because the Nevada SIP does not explain the state’s consideration of each of the BART Factors when setting the SO<sub>2</sub> emissions limitation at Reid Gardner, that limitation is inadequate. See Beno, 30 F.3d at 1075, quoting Getty, 805 F.2d at 1055 (“Stating that a factor was considered...is not a substitute for considering it.”). As described below, Nevada’s failure to adequately consider each BART Factor is evident in the SO<sub>2</sub> emissions limitation itself, which permits Reid Gardner to emit more SO<sub>2</sub> than it did before Nevada developed its Regional Haze SIP.

## ***2. Nevada’s New SO<sub>2</sub> Limit Increases Emissions***

The Nevada SIP sets an SO<sub>2</sub> emission limitation of 0.15 lb/MMBtu for all three Units at Reid Gardner averaged over a 24-hour period. See AR B-1 at 5-12 [JA \_\_\_\_]. This limitation considerably exceeds Reid Gardner’s recent SO<sub>2</sub> emission rates. For instance, in 2009 – the last year for which Nevada considered emission rates in setting its SO<sub>2</sub> limit at Reid Gardner – Units 1, 2, and 3 emitted SO<sub>2</sub> at a rate of 0.054, 0.055, and 0.059 lbs/MMBtu, respectively. See AR D-12 at Exhibit 2 [JA \_\_\_\_]; AR E.1 [JA \_\_\_\_]; AR E.2 [JA \_\_\_\_] (CAMD for Reid Gardner).<sup>21</sup> In the five years prior to 2009, Unit 1 emitted between 0.036 and

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<sup>21</sup> See p. 20, n. 18, supra, for calculations from tons to lb/MMBtu.



0.054 lbs/MMBtu of SO<sub>2</sub>, Unit 2 emitted between 0.030 and 0.048 lbs/MMBtu of SO<sub>2</sub>, and Unit 3 emitted between 0.035 and 0.056 lbs/MMBtu of SO<sub>2</sub>. See AR E.1 [JA \_\_\_ ] and E.2 [JA \_\_\_ ].<sup>22</sup> Accordingly, Reid Gardner Units 1-3 are capable of maintaining much lower emissions than the 0.15 lbs/MMBtu Nevada now claims represents BART.

Nevada's emission limitation for SO<sub>2</sub> at Reid Gardner turns the concept of BART on its head. BART is "an emission limitation based on the degree of reduction *achievable* through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility." 40 C.F.R. § 51.301 (emphasis added). Here, EPA data show that rates of SO<sub>2</sub> emissions lower than 0.15 lb/MMBtu are not only achievable, but historically occurring at Reid Gardner. Because Nevada's BART determination allows for greater SO<sub>2</sub> emissions from Reid Gardner than were occurring at this plant before implementation of the Regional Haze Program, this limitation cannot possibly represent the "best achievable retrofit technology" as the CAA and EPA's Regional Haze Rule require.

Interestingly, Nevada concedes in its SIP that the new "BART" limitation will allow for the release of 838 additional tons of SO<sub>2</sub> per year from Reid Gardner.

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<sup>22</sup> As also shown therein, Reid Gardner Unit 4, which is not subject to BART, is larger than the other three, and has consistently higher emission rates.

See AR B-1 at 5-12 [JA \_\_\_\_]. Nevada defends its BART determination, however, by pointing to “cumulative emission reductions” from all Nevada sources subject to BART. *Id.*, at 5-14 – 5-15 [JA \_\_\_\_]. This approach is mistaken.

BART must be determined for all eligible sources “on a case-by-case basis.” 40 C.F.R. § 51.301. It is therefore immaterial to the BART determination for Reid Gardner whether the Nevada SIP achieves *overall* reductions in SO<sub>2</sub> emissions. What matters here is whether Nevada’s BART determination for Reid Gardner employs the best available technology for SO<sub>2</sub> emissions reductions at Reid Gardner. It clearly does not. Quite the opposite, Nevada’s “more pollution” BART determination directly contravenes Congress’ intent in enacting the CAA and passing the 1977 Amendments. *See* 42 U.S.C. § 7401(d)(1) (purpose of the CAA is to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare”); 42 U.S.C. § 7492(b) (focus of the Regional Haze Program is to achieve “actual progress and improvement in visibility”).

While Section 169A does not mandate emission reductions, limitations that do not meet even the standards of technology currently in place do not and cannot qualify as BART. Because Nevada set a limit for SO<sub>2</sub> emissions at Reid Gardner that is more permissive than that demonstrated by existing technology, Nevada’s asserted emissions limitation does not represent BART. Furthermore, because

Nevada has not adopted other limitations shown to result in greater reasonable progress than BART, Nevada has not fulfilled its requirements under Section 169A. See 40 C.F.R. § 51.308(e)(2).

### **III. EPA's Approval of the Nevada SIP is Arbitrary and Capricious**

Nevada submitted its noncompliant Regional Haze SIP to EPA for review in October 2009. See generally AR B-1 [JA \_\_\_\_]. On June 22, 2011, despite the plan's inadequacies, EPA proposed to approve the Nevada SIP in full. See generally 76 Fed. Reg. 36450 (located at AR C-1 [JA \_\_\_\_]). On March 26, 2012, after receiving comments from environmental advocacy groups, Native American tribes, individuals, and State and Federal Agencies – most of whom opposed full approval – EPA approved all portions of the Nevada Regional Haze SIP except its BART determination for NO<sub>x</sub> at Reid Gardner. See generally 77 Fed. Reg. 17334 (located at AR C-3 [JA \_\_\_\_]). In so doing, EPA approved Nevada's inadequate "worst days" RPG for the Jarbridge Wilderness, as well as its inadequate BART determination for SO<sub>2</sub> emissions at Reid Gardner. For all the reasons stated below, EPA's approval of the Nevada SIP is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law. See 42 U.S.C. § 7607(d)(9)(A).

#### **A. EPA Failed to Explain How the Nevada SIP Complies With the CAA and the Regional Haze Rule**

Under the CAA, EPA may approve only those portions of a SIP that comply with the mandates of Section 169A and the Regional Haze Program. See 42 U.S.C.

§§ 7410(k)(3) and 7491(b)(2); 40 C.F.R. § 52.02(a). As explained herein, the Nevada SIP does not meet these mandates with respect to the determination of RPGs and BART. Still, EPA approved the SIP over the objections of Guardians and others. EPA has offered no persuasive reason why Nevada's RPG or BART determination comply with law.

First, EPA states without explanation or citation to the SIP that Nevada "considered the four factors" in setting its "worst days" RPG for the Jarbridge Wilderness. 77 Fed. Reg. at 17337. As set forth above, however, Nevada did not consider these factors in its SIP, but merely recited them. EPA even concedes in its Final Rule that Nevada considered cost first and then "concluded it was not necessary to continue with an analysis of the remaining [four RPG] factors." *Id.* Under these circumstances, EPA's approval of Nevada's "worst days" RPG for Jarbridge is arbitrary and capricious. See 42 U.S.C. § 7607(d)(9)(A). Just as Nevada has no discretion to disregard the RPG Factors in setting an RPG, EPA has no discretion in disregarding the same factors in approving one. See 42 U.S.C. §§ 7410(k)(3) and 7491(b)(2); 40 C.F.R. § 52.02(a). See also *NRDC*, 638 F.3d at 1190 (where an agency has "failed to consider mandatory factors set forth by statute or in a regulation," its action must be set aside).

EPA relied heavily on Nevada's determination of greater-than-URP progress in rationalizing the "worst days" Jarbridge RPG. See 76 Fed. Reg. at 36465.

However, EPA knew, even when it first proposed approval, that this assessment was false. See id., at 36464, n.18 (acknowledging that the correct URP value in Jarbridge for 2018 is 11.1 deciviews); AR A-12 [JA \_\_\_\_ ] (WRAP data correction).

Nevertheless, EPA persisted with its proposed approval, saying only:

It is EPA's view that at this point in the SIP process, the discovery of a potential error in the visibility projections for 2018 does not call for a revision of the Nevada SIP. Because of the significant resources needed to model projected visibility impacts and the time needed for Nevada to repeat the SIP review and approval process, such action is not appropriate.

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EPA is satisfied that the progress report and adequacy determination due in November 2014, see 40 C.F.R. §[§] 51.308(g), and (h), will provide an opportunity to determine whether Nevada's SIP is sufficient to ensure that the State is making reasonable progress.

76 Fed. Reg. at 36464, n.18. Remarkably, EPA gives no further consideration to the issue in this Final Rule. See generally 77 Fed. Reg. 17334.

EPA's review and approval of Nevada's "worst days" RPG for Jarbridge is unlawful under Ninth Circuit precedent. In Sierra Club v. EPA, 671 F.3d 955 (9<sup>th</sup> Cir.2012), this Court made clear that when the agency is aware of relevant data, which become available after a SIP is submitted, it must evaluate that data within the context of its review. See id., at 967-68. If EPA fails to consider such newly acquired data, it does not "bring its expertise to bear" on the issue, as required by law. See id., at 968, quoting Motor Vehicle Manufacturers, 463 U.S. at 54. EPA's apparent desire for expediency does not negate its duty to ensure compliance.

Second, EPA's approval does not discuss how Nevada analyzed the BART Factors, but only rationalizes Nevada's BART determination for SO<sub>2</sub> emissions at Reid Gardner. Specifically, EPA argues that a comparison of pre- versus post-Regional Haze Program emissions cannot be accomplished by looking at annual data, but rather must be done through an examination of daily emissions. See 77 Fed. Reg. at 17338. EPA overlooks the fact that daily emission measurements too prove that a 0.15 lb/MMBtu limitation on SO<sub>2</sub> emissions at Reid Gardner cannot represent BART.

EPA CAMD prove that in recent years, Reid Gardner's BART-eligible Units consistently demonstrate the ability to operate at much lower SO<sub>2</sub> emissions rates than 0.15 lbs/MMBtu per day. See AR E.1 [JA \_\_\_\_ ] and E.2 [JA \_\_\_\_ ]. For example, between 2003 and 2005, Reid Gardner Unit 1 recorded just one day with an SO<sub>2</sub> emissions rate higher than 0.15 lbs/MMBtu. See id.<sup>23</sup> Additionally, in 2010, Units 1, 2, and 3 together totaled only three days with SO<sub>2</sub> emission rates above 0.15 lbs/MMBtu. See id. Accordingly, EPA CAMD indicate that, overall, SO<sub>2</sub> emission rates above 0.15 lbs/MMBtu are the exception at Reid Gardner – not the rule.

Again, BART represents the best technology *achievable* at a specific pollution source. Because the data show Nevada's 0.15 lbs/MMBtu limitation

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<sup>23</sup> Note that Guardians has omitted invalid data from the first quarter of 2003.

allows for more SO<sub>2</sub> emissions than normally occur at Reid Gardner – even on a daily basis – EPA’s approval of Nevada’s BART limitation is arbitrary and capricious. See Motor Vehicle Manufacturers, 463 U.S. at 43 (agency action that runs counter to the evidence in the record is arbitrary and capricious).

**B. EPA Made No Finding That Implementation of the SIP Will Not Interfere with Attainment and/or Maintenance of NAAQS**

In accordance with the CAA, EPA is duty-bound to ensure that the Nevada SIP does not interfere with the attainment and maintenance of any NAAQS. See 42 U.S.C. § 7410(l). Importantly, EPA promulgated in 2010 new hourly limits for both SO<sub>2</sub> and NO<sub>x</sub>. See 40 C.F.R. §§ 50.5 (secondary NAAQS for SO<sub>2</sub> setting 3-hour standard at 0.5 ppm) and 50.11 (secondary NAAQS for NO<sub>x</sub> setting annual arithmetic mean concentration less than or equal to 0.053 ppm based upon hourly data). The Nevada Regional Haze SIP provided EPA with an important opportunity to ensure Nevada’s emissions as proposed under the Regional Haze Program were in attainment with these new hourly standards.

Instead, EPA was utterly silent on the issue of NAAQS, both in its Proposed and Final Rules approving the Nevada SIP. EPA’s silence is not permitted under Ninth Circuit precedent. See Hall, 273 F.3d at 1161 (EPA must “rationally connect[] its approval of particular plan revisions...to its assessment of an area’s prospects for meeting current attainment requirements”). Because EPA failed to analyze whether implementation of the Nevada SIP would interfere with that

state's maintenance or attainment of any NAAQS, EPA's approval of the Nevada SIP is arbitrary and capricious. See Motor Vehicle Manufacturers, 463 U.S. at 43 (agency action that fails entirely to consider an important aspect of the problem is arbitrary and capricious).

### CONCLUSION

For all the reasons stated herein, the Nevada Regional Haze SIP does not comply with Section 169A of the CAA nor EPA's Regional Haze Rule. EPA's approval of this noncompliant SIP and concomitant decision to not develop a FIP is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. Accordingly, Guardians respectfully requests that this Court vacate EPA's Final Rule approving Nevada's Regional Haze SIP and remand this matter to EPA for further proceedings consistent with the CAA. Guardians further requests that the Court award Guardians its costs of litigation, including reasonable attorneys' fees, pursuant to Section 307(f) of the CAA. See 42 U.S.C. § 7607(f).

Dated September 7, 2012.

s/ James Jay Tutchton  
James Jay Tutchton  
Melissa Anne Hailey

*Attorneys for Petitioner*



**CERTIFICATE OF COMPLIANCE WITH WORD LIMIT**

This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because it contains 10,376 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word for Mac 2011 and 14 point Times New Roman font.

**STATEMENT OF RELATED CASES**

Petitioner knows of no related cases in this Court.

**CERTIFICATE OF SERVICE**

I hereby certify that on September 7, 2012, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system.

All participants in the case are registered CM/ECF users and will be served by the appellate CM/ECF system at the following addresses:

David A. Carson: David.A.Carson@usdoj.gov;

Lisa E. Jones: Lisa.jones@Sidley.com;

Jasmine K. Mehta: jmehta@ad.nv.gov; and

James R. Wedeking: jwedeking@sidley.com.

Dated September 7, 2012.

s/James Jay Tutchton  
James Jay Tutchton

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→→ **§ 7410. State implementation plans for national primary and secondary ambient air quality standards**

(a) Adoption of plan by State; submission to Administrator; content of plan; revision; new sources; indirect source review program; supplemental or intermittent control systems

(1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under [section 7409](#) of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

(2) Each implementation plan submitted by a State under this chapter shall be adopted by the State after reasonable notice and public hearing. Each such plan shall--

(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter;

(B) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to--

(i) monitor, compile, and analyze data on ambient air quality, and

(ii) upon request, make such data available to the Administrator;

(C) include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter;

(D) contain adequate provisions--

(i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will--

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or

(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility,

(ii) insuring compliance with the applicable requirements of [sections 7426](#) and [7415](#) of this title (relating to interstate and international pollution abatement);

(E) provide (i) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof), (ii) requirements that the State comply with the requirements respecting State boards under [section 7428](#) of this title, and (iii) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;

(F) require, as may be prescribed by the Administrator--

(i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,

(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and

(iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection;

(G) provide for authority comparable to that in [section 7603](#) of this title and adequate contingency plans to implement such authority;

(H) provide for revision of such plan--

(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and

(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this chapter;

(I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D of this subchapter (relating to nonattainment areas);

(J) meet the applicable requirements of [section 7421](#) of this title (relating to consultation), [section 7427](#) of this title (relating to public notification), and part C of this subchapter (relating to prevention of significant deterioration of air quality and visibility protection);

(K) provide for--

(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and

(ii) the submission, upon request, of data related to such air quality modeling to the Administrator;

(L) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover--



(i) the reasonable costs of reviewing and acting upon any application for such a permit, and

(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),

until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under subchapter V of this chapter; and

(M) provide for consultation and participation by local political subdivisions affected by the plan.

(3)(A) Repealed. Pub.L. 101-549, Title I, § 101(d)(1), Nov. 15, 1990, 104 Stat. 2409

(B) As soon as practicable, the Administrator shall, consistent with the purposes of this chapter and the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C.A. § 791 et seq.], review each State's applicable implementation plans and report to the State on whether such plans can be revised in relation to fuel burning stationary sources (or persons supplying fuel to such sources) without interfering with the attainment and maintenance of any national ambient air quality standard within the period permitted in this section. If the Administrator determines that any such plan can be revised, he shall notify the State that a plan revision may be submitted by the State. Any plan revision which is submitted by the State shall, after public notice and opportunity for public hearing, be approved by the Administrator if the revision relates only to fuel burning stationary sources (or persons supplying fuel to such sources), and the plan as revised complies with paragraph (2) of this subsection. The Administrator shall approve or disapprove any revision no later than three months after its submission.

(C) Neither the State, in the case of a plan (or portion thereof) approved under this subsection, nor the Administrator, in the case of a plan (or portion thereof) promulgated under subsection (c) of this section, shall be required to revise an applicable implementation plan because one or more exemptions under section 7418 of this title (relating to Federal facilities), enforcement orders under section 7413(d) of this title, suspensions under subsection (f) or (g) of this section (relating to temporary energy or economic authority), orders under section 7419 of this title (relating to primary nonferrous smelters), or extensions of compliance in decrees entered under section 7413(e) of this title (relating to iron- and steel-producing operations) have been granted, if such plan would have met the requirements of this section if no such exemptions, orders, or extensions had been granted.

(4) Repealed. Pub.L. 101-549, Title I, § 101(d)(2), Nov. 15, 1990, 104 Stat. 2409

(5)(A)(i) Any State may include in a State implementation plan, but the Administrator may not require as a condition of approval of such plan under this section, any indirect source re-

view program. The Administrator may approve and enforce, as part of an applicable implementation plan, an indirect source review program which the State chooses to adopt and submit as part of its plan.

**(ii)** Except as provided in subparagraph (B), no plan promulgated by the Administrator shall include any indirect source review program for any air quality control region, or portion thereof.

**(iii)** Any State may revise an applicable implementation plan approved under this subsection to suspend or revoke any such program included in such plan, provided that such plan meets the requirements of this section.

**(B)** The Administrator shall have the authority to promulgate, implement and enforce regulations under subsection (c) of this section respecting indirect source review programs which apply only to federally assisted highways, airports, and other major federally assisted indirect sources and federally owned or operated indirect sources.

**(C)** For purposes of this paragraph, the term “indirect source” means a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. Such term includes parking lots, parking garages, and other facilities subject to any measure for management of parking supply (within the meaning of subsection (c)(2)(D)(ii) of this section), including regulation of existing off-street parking but such term does not include new or existing on-street parking. Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose of this paragraph.

**(D)** For purposes of this paragraph the term “indirect source review program” means the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution, the emissions from which would cause or contribute to air pollution concentrations--

**(i)** exceeding any national primary ambient air quality standard for a mobile source-related air pollutant after the primary standard attainment date, or

**(ii)** preventing maintenance of any such standard after such date.

**(E)** For purposes of this paragraph and paragraph (2)(B), the term “transportation control measure” does not include any measure which is an “indirect source review program”.

(6) No State plan shall be treated as meeting the requirements of this section unless such plan provides that in the case of any source which uses a supplemental, or intermittent control system for purposes of meeting the requirements of an order under [section 7413\(d\)](#) of this title or [section 7419](#) of this title (relating to primary nonferrous smelter orders), the owner or operator of such source may not temporarily reduce the pay of any employee by reason of the use of such supplemental or intermittent or other dispersion dependent control system.

(b) Extension of period for submission of plans

The Administrator may, wherever he determines necessary, extend the period for submission of any plan or portion thereof which implements a national secondary ambient air quality standard for a period not to exceed 18 months from the date otherwise required for submission of such plan.

(c) Preparation and publication by Administrator of proposed regulations setting forth implementation plan; transportation regulations study and report; parking surcharge; suspension authority; plan implementation

(1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator--

(A) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria established under subsection (k)(1)(A) of this section, or

(B) disapproves a State implementation plan submission in whole or in part,

unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.

(2)(A) Repealed. [Pub.L. 101-549, Title I, § 101\(d\)\(3\)\(A\)](#), Nov. 15, 1990, 104 Stat. 2409

(B) No parking surcharge regulation may be required by the Administrator under paragraph (1) of this subsection as a part of an applicable implementation plan. All parking surcharge regulations previously required by the Administrator shall be void upon June 22, 1974. This subparagraph shall not prevent the Administrator from approving parking surcharges if they are adopted and submitted by a State as part of an applicable implementation plan. The Administrator may not condition approval of any implementation plan submitted by a State on such plan's including a parking surcharge regulation.

(C) Repealed. [Pub.L. 101-549, Title I, § 101\(d\)\(3\)\(B\)](#), Nov. 15, 1990, 104 Stat. 2409

**(D)** For purposes of this paragraph--

**(i)** The term “parking surcharge regulation” means a regulation imposing or requiring the imposition of any tax, surcharge, fee, or other charge on parking spaces, or any other area used for the temporary storage of motor vehicles.

**(ii)** The term “management of parking supply” shall include any requirement providing that any new facility containing a given number of parking spaces shall receive a permit or other prior approval, issuance of which is to be conditioned on air quality considerations.

**(iii)** The term “preferential bus/carpool lane” shall include any requirement for the setting aside of one or more lanes of a street or highway on a permanent or temporary basis for the exclusive use of buses or carpools, or both.

**(E)** No standard, plan, or requirement, relating to management of parking supply or preferential bus/carpool lanes shall be promulgated after June 22, 1974, by the Administrator pursuant to this section, unless such promulgation has been subjected to at least one public hearing which has been held in the area affected and for which reasonable notice has been given in such area. If substantial changes are made following public hearings, one or more additional hearings shall be held in such area after such notice.

**(3)** Upon application of the chief executive officer of any general purpose unit of local government, if the Administrator determines that such unit has adequate authority under State or local law, the Administrator may delegate to such unit the authority to implement and enforce within the jurisdiction of such unit any part of a plan promulgated under this subsection. Nothing in this paragraph shall prevent the Administrator from implementing or enforcing any applicable provision of a plan promulgated under this subsection.

**(4)** Repealed. [Pub.L. 101-549, Title I, § 101\(d\)\(3\)\(C\)](#), Nov. 15, 1990, 104 Stat. 2409

**(5)(A)** Any measure in an applicable implementation plan which requires a toll or other charge for the use of a bridge located entirely within one city shall be eliminated from such plan by the Administrator upon application by the Governor of the State, which application shall include a certification by the Governor that he will revise such plan in accordance with subparagraph (B).

**(B)** In the case of any applicable implementation plan with respect to which a measure has been eliminated under subparagraph (A), such plan shall, not later than one year after August 7, 1977, be revised to include comprehensive measures to:

**(i)** establish, expand, or improve public transportation measures to meet basic transportation

needs, as expeditiously as is practicable; and

(ii) implement transportation control measures necessary to attain and maintain national ambient air quality standards,

and such revised plan shall, for the purpose of implementing such comprehensive public transportation measures, include requirements to use (insofar as is necessary) Federal grants, State or local funds, or any combination of such grants and funds as may be consistent with the terms of the legislation providing such grants and funds. Such measures shall, as a substitute for the tolls or charges eliminated under subparagraph (A), provide for emissions reductions equivalent to the reductions which may reasonably be expected to be achieved through the use of the tolls or charges eliminated.

(C) Any revision of an implementation plan for purposes of meeting the requirements of subparagraph (B) shall be submitted in coordination with any plan revision required under part D of this subchapter.

(d), (e) Repealed. [Pub.L. 101-549, Title I, § 101\(d\)\(4\), \(5\)](#), Nov. 15, 1990, 104 Stat. 2409

(f) National or regional energy emergencies; determination by President

(1) Upon application by the owner or operator of a fuel burning stationary source, and after notice and opportunity for public hearing, the Governor of the State in which such source is located may petition the President to determine that a national or regional energy emergency exists of such severity that--

(A) a temporary suspension of any part of the applicable implementation plan or of any requirement under [section 7651j](#) of this title (concerning excess emissions penalties or offsets) may be necessary, and

(B) other means of responding to the energy emergency may be inadequate.

Such determination shall not be delegable by the President to any other person. If the President determines that a national or regional energy emergency of such severity exists, a temporary emergency suspension of any part of an applicable implementation plan or of any requirement under [section 7651j](#) of this title (concerning excess emissions penalties or offsets) adopted by the State may be issued by the Governor of any State covered by the President's determination under the condition specified in paragraph (2) and may take effect immediately.

(2) A temporary emergency suspension under this subsection shall be issued to a source only if the Governor of such State finds that--

(A) there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and

(B) such unemployment or loss can be totally or partially alleviated by such emergency suspension.

Not more than one such suspension may be issued for any source on the basis of the same set of circumstances or on the basis of the same emergency.

(3) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator, if any. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of paragraph (2).

(4) This subsection shall not apply in the case of a plan provision or requirement promulgated by the Administrator under subsection (c) of this section, but in any such case the President may grant a temporary emergency suspension for a four month period of any such provision or requirement if he makes the determinations and findings specified in paragraphs (1) and (2).

(5) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under [section 1857c-10](#) of this title, as in effect before August 7, 1977, or [section 7413\(d\)](#) of this title, upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(g) Governor's authority to issue temporary emergency suspensions

(1) In the case of any State which has adopted and submitted to the Administrator a proposed plan revision which the State determines--

(A) meets the requirements of this section, and

(B) is necessary (i) to prevent the closing for one year or more of any source of air pollution, and (ii) to prevent substantial increases in unemployment which would result from such closing, and

which the Administrator has not approved or disapproved under this section within 12 months of submission of the proposed plan revision, the Governor may issue a temporary emergency suspension of the part of the applicable implementation plan for such State which is proposed

to be revised with respect to such source. The determination under subparagraph (B) may not be made with respect to a source which would close without regard to whether or not the proposed plan revision is approved.

(2) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of this subsection.

(3) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under [section 1857c-10](#) of this title as in effect before August 7, 1977, or under [section 7413\(d\)](#) of this title upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(h) Publication of comprehensive document for each State setting forth requirements of applicable implementation plan

(1) Not later than 5 years after November 15, 1990, and every 3 years thereafter, the Administrator shall assemble and publish a comprehensive document for each State setting forth all requirements of the applicable implementation plan for such State and shall publish notice in the Federal Register of the availability of such documents.

(2) The Administrator may promulgate such regulations as may be reasonably necessary to carry out the purpose of this subsection.

(i) Modification of requirements prohibited

Except for a primary nonferrous smelter order under [section 7419](#) of this title, a suspension under subsection (f) or (g) of this section (relating to emergency suspensions), an exemption under [section 7418](#) of this title (relating to certain Federal facilities), an order under [section 7413\(d\)](#) of this title (relating to compliance orders), a plan promulgation under subsection (c) of this section, or a plan revision under subsection (a)(3) of this section, no order, suspension, plan revision, or other action modifying any requirement of an applicable implementation plan may be taken with respect to any stationary source by the State or by the Administrator.

(j) Technological systems of continuous emission reduction on new or modified stationary sources; compliance with performance standards

As a condition for issuance of any permit required under this subchapter, the owner or operator of each new or modified stationary source which is required to obtain such a permit must



show to the satisfaction of the permitting authority that the technological system of continuous emission reduction which is to be used will enable such source to comply with the standards of performance which are to apply to such source and that the construction or modification and operation of such source will be in compliance with all other requirements of this chapter.

(k) Environmental Protection Agency action on plan submissions

(1) Completeness of plan submissions

(A) Completeness criteria

Within 9 months after November 15, 1990, the Administrator shall promulgate minimum criteria that any plan submission must meet before the Administrator is required to act on such submission under this subsection. The criteria shall be limited to the information necessary to enable the Administrator to determine whether the plan submission complies with the provisions of this chapter.

(B) Completeness finding

Within 60 days of the Administrator's receipt of a plan or plan revision, but no later than 6 months after the date, if any, by which a State is required to submit the plan or revision, the Administrator shall determine whether the minimum criteria established pursuant to subparagraph (A) have been met. Any plan or plan revision that a State submits to the Administrator, and that has not been determined by the Administrator (by the date 6 months after receipt of the submission) to have failed to meet the minimum criteria established pursuant to subparagraph (A), shall on that date be deemed by operation of law to meet such minimum criteria.

(C) Effect of finding of incompleteness

Where the Administrator determines that a plan submission (or part thereof) does not meet the minimum criteria established pursuant to subparagraph (A), the State shall be treated as not having made the submission (or, in the Administrator's discretion, part thereof).

(2) Deadline for action

Within 12 months of a determination by the Administrator (or a determination deemed by operation of law) under paragraph (1) that a State has submitted a plan or plan revision (or, in the Administrator's discretion, part thereof) that meets the minimum criteria established pursuant to paragraph (1), if applicable (or, if those criteria are not applicable, within 12



months of submission of the plan or revision), the Administrator shall act on the submission in accordance with paragraph (3).

(3) Full and partial approval and disapproval

In the case of any submittal on which the Administrator is required to act under paragraph (2), the Administrator shall approve such submittal as a whole if it meets all of the applicable requirements of this chapter. If a portion of the plan revision meets all the applicable requirements of this chapter, the Administrator may approve the plan revision in part and disapprove the plan revision in part. The plan revision shall not be treated as meeting the requirements of this chapter until the Administrator approves the entire plan revision as complying with the applicable requirements of this chapter.

(4) Conditional approval

The Administrator may approve a plan revision based on a commitment of the State to adopt specific enforceable measures by a date certain, but not later than 1 year after the date of approval of the plan revision. Any such conditional approval shall be treated as a disapproval if the State fails to comply with such commitment.

(5) Calls for plan revisions

Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard, to mitigate adequately the interstate pollutant transport described in [section 7506a](#) of this title or [section 7511c](#) of this title, or to otherwise comply with any requirement of this chapter, the Administrator shall require the State to revise the plan as necessary to correct such inadequacies. The Administrator shall notify the State of the inadequacies, and may establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions. Such findings and notice shall be public. Any finding under this paragraph shall, to the extent the Administrator deems appropriate, subject the State to the requirements of this chapter to which the State was subject when it developed and submitted the plan for which such finding was made, except that the Administrator may adjust any dates applicable under such requirements as appropriate (except that the Administrator may not adjust any attainment date prescribed under part D of this subchapter, unless such date has elapsed).

(6) Corrections

Whenever the Administrator determines that the Administrator's action approving, disapproving, or promulgating any plan or plan revision (or part thereof), area designation, redesignation, classification, or reclassification was in error, the Administrator may in the same manner as the approval, disapproval, or promulgation revise such action as appropriate

without requiring any further submission from the State. Such determination and the basis thereof shall be provided to the State and public.

(l) Plan revisions

Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in [section 7501](#) of this title), or any other applicable requirement of this chapter.

(m) Sanctions

The Administrator may apply any of the sanctions listed in [section 7509\(b\)](#) of this title at any time (or at any time after) the Administrator makes a finding, disapproval, or determination under paragraphs (1) through (4), respectively, of [section 7509\(a\)](#) of this title in relation to any plan or plan item (as that term is defined by the Administrator) required under this chapter, with respect to any portion of the State the Administrator determines reasonable and appropriate, for the purpose of ensuring that the requirements of this chapter relating to such plan or plan item are met. The Administrator shall, by rule, establish criteria for exercising his authority under the previous sentence with respect to any deficiency referred to in [section 7509\(a\)](#) of this title to ensure that, during the 24-month period following the finding, disapproval, or determination referred to in [section 7509\(a\)](#) of this title, such sanctions are not applied on a statewide basis where one or more political subdivisions covered by the applicable implementation plan are principally responsible for such deficiency.

(n) Savings clauses

(1) Existing plan provisions

Any provision of any applicable implementation plan that was approved or promulgated by the Administrator pursuant to this section as in effect before November 15, 1990, shall remain in effect as part of such applicable implementation plan, except to the extent that a revision to such provision is approved or promulgated by the Administrator pursuant to this chapter.

(2) Attainment dates

For any area not designated nonattainment, any plan or plan revision submitted or required to be submitted by a State--

(A) in response to the promulgation or revision of a national primary ambient air quality standard in effect on November 15, 1990, or

(B) in response to a finding of substantial inadequacy under subsection (a)(2) of this section (as in effect immediately before November 15, 1990),

shall provide for attainment of the national primary ambient air quality standards within 3 years of November 15, 1990, or within 5 years of issuance of such finding of substantial inadequacy, whichever is later.

(3) Retention of construction moratorium in certain areas

In the case of an area to which, immediately before November 15, 1990, the prohibition on construction or modification of major stationary sources prescribed in subsection (a)(2)(I) of this section (as in effect immediately before November 15, 1990) applied by virtue of a finding of the Administrator that the State containing such area had not submitted an implementation plan meeting the requirements of [section 7502\(b\)\(6\)](#) of this title (relating to establishment of a permit program) (as in effect immediately before November 15, 1990) or [7502\(a\)\(1\)](#) of this title (to the extent such requirements relate to provision for attainment of the primary national ambient air quality standard for sulfur oxides by December 31, 1982) as in effect immediately before November 15, 1990, no major stationary source of the relevant air pollutant or pollutants shall be constructed or modified in such area until the Administrator finds that the plan for such area meets the applicable requirements of [section 7502\(c\)\(5\)](#) of this title (relating to permit programs) or subpart 5 of part D of this subchapter (relating to attainment of the primary national ambient air quality standard for sulfur dioxide), respectively.

(o) Indian tribes

If an Indian tribe submits an implementation plan to the Administrator pursuant to [section 7601\(d\)](#) of this title, the plan shall be reviewed in accordance with the provisions for review set forth in this section for State plans, except as otherwise provided by regulation promulgated pursuant to [section 7601\(d\)\(2\)](#) of this title. When such plan becomes effective in accordance with the regulations promulgated under [section 7601\(d\)](#) of this title, the plan shall become applicable to all areas (except as expressly provided otherwise in the plan) located within the exterior boundaries of the reservation, notwithstanding the issuance of any patent and including rights-of-way running through the reservation.

(p) Reports

Any State shall submit, according to such schedule as the Administrator may prescribe, such reports as the Administrator may require relating to emission reductions, vehicle miles traveled, congestion levels, and any other information the Administrator may deem necessary

to assess the development effectiveness, need for revision, or implementation of any plan or plan revision required under this chapter.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 110, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1680; amended June 22, 1974, Pub.L. 93-319, § 4, 88 Stat. 256; S.Res. 4, Feb. 4, 1977; Aug. 7, 1977, Pub.L. 95-95, Title I, §§ 107, 108, 91 Stat. 691, 693; Nov. 16, 1977, Pub.L. 95-190, § 14(a)(1)-(6), 91 Stat. 1399; July 17, 1981, Pub.L. 97-23, § 3, 95 Stat. 142; Nov. 15, 1990, Pub.L. 101-549, Title I, §§ 101(b)-(d), 102(h), 107(c), 108(d), Title IV, § 412, 104 Stat. 2404-2408, 2422, 2464, 2466, 2634.)

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**Effective:[See Text Amendments]**

United States Code Annotated **Currentness**

Title 42. The Public Health and Welfare

Chapter 85. Air Pollution Prevention and Control (Refs & Annos)

Subchapter I. Programs and Activities

▣ **Part C.** Prevention of Significant Deterioration of Air Quality

▣ **Subpart II.** Visibility Protection (Refs & Annos)

→→ **§ 7491. Visibility protection for Federal class I areas**

(a) Impairment of visibility; list of areas; study and report

(1) Congress hereby declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.

(2) Not later than six months after August 7, 1977, the Secretary of the Interior in consultation with other Federal land managers shall review all mandatory class I Federal areas and identify those where visibility is an important value of the area. From time to time the Secretary of the Interior may revise such identifications. Not later than one year after August 7, 1977, the Administrator shall, after consultation with the Secretary of the Interior, promulgate a list of mandatory class I Federal areas in which he determines visibility is an important value.

(3) Not later than eighteen months after August 7, 1977, the Administrator shall complete a study and report to Congress on available methods for implementing the national goal set forth in paragraph (1). Such report shall include recommendations for--

(A) methods for identifying, characterizing, determining, quantifying, and measuring visibility impairment in Federal areas referred to in paragraph (1), and

(B) modeling techniques (or other methods) for determining the extent to which manmade air pollution may reasonably be anticipated to cause or contribute to such impairment, and

(C) methods for preventing and remedying such manmade air pollution and resulting visibility impairment.

Such report shall also identify the classes or categories of sources and the types of air pollut-

ants which, alone or in conjunction with other sources or pollutants, may reasonably be anticipated to cause or contribute significantly to impairment of visibility.

(4) Not later than twenty-four months after August 7, 1977, and after notice and public hearing, the Administrator shall promulgate regulations to assure (A) reasonable progress toward meeting the national goal specified in paragraph (1), and (B) compliance with the requirements of this section.

(b) Regulations

Regulations under subsection (a)(4) of this section shall--

(1) provide guidelines to the States, taking into account the recommendations under subsection (a)(3) of this section on appropriate techniques and methods for implementing this section (as provided in subparagraphs (A) through (C) of such subsection (a)(3) ), and

(2) require each applicable implementation plan for a State in which any area listed by the Administrator under subsection (a)(2) of this section is located (or for a State the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area) to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal specified in subsection (a) of this section, including--

(A) except as otherwise provided pursuant to subsection (c) of this section, a requirement that each major stationary source which is in existence on August 7, 1977, but which has not been in operation for more than fifteen years as of such date, and which, as determined by the State (or the Administrator in the case of a plan promulgated under [section 7410\(c\)](#) of this title) emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area, shall procure, install, and operate, as expeditiously as practicable (and maintain thereafter) the best available retrofit technology, as determined by the State (or the Administrator in the case of a plan promulgated under [section 7410\(c\)](#) of this title) for controlling emissions from such source for the purpose of eliminating or reducing any such impairment, and

(B) a long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal specified in subsection (a) of this section.

In the case of a fossil-fuel fired generating powerplant having a total generating capacity in excess of 750 megawatts, the emission limitations required under this paragraph shall be determined pursuant to guidelines, promulgated by the Administrator under paragraph (1).

(c) Exemptions

(1) The Administrator may, by rule, after notice and opportunity for public hearing, exempt any major stationary source from the requirement of subsection (b)(2)(A) of this section, upon his determination that such source does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility in any mandatory class I Federal area.

(2) Paragraph (1) of this subsection shall not be applicable to any fossil-fuel fired powerplant with total design capacity of 750 megawatts or more, unless the owner or operator of any such plant demonstrates to the satisfaction of the Administrator that such powerplant is located at such distance from all areas listed by the Administrator under subsection (a)(2) of this section that such powerplant does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to significant impairment of visibility in any such area.

(3) An exemption under this subsection shall be effective only upon concurrence by the appropriate Federal land manager or managers with the Administrator's determination under this subsection.

(d) Consultations with appropriate Federal land managers

Before holding the public hearing on the proposed revision of an applicable implementation plan to meet the requirements of this section, the State (or the Administrator, in the case of a plan promulgated under [section 7410\(c\)](#) of this title) shall consult in person with the appropriate Federal land manager or managers and shall include a summary of the conclusions and recommendations of the Federal land managers in the notice to the public.

(e) Buffer zones

In promulgating regulations under this section, the Administrator shall not require the use of any automatic or uniform buffer zone or zones.

(f) Nondiscretionary duty

For purposes of [section 7604\(a\)\(2\)](#) of this title, the meeting of the national goal specified in subsection (a)(1) of this section by any specific date or dates shall not be considered a “nondiscretionary duty” of the Administrator.

(g) Definitions

For the purpose of this section--

- (1) in determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements;
- (2) in determining best available retrofit technology the State (or the Administrator in determining emission limitations which reflect such technology) shall take into consideration the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control technology 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;
- (3) the term “manmade air pollution” means air pollution which results directly or indirectly from human activities;
- (4) the term “as expeditiously as practicable” means as expeditiously as practicable but in no event later than five years after the date of approval of a plan revision under this section (or the date of promulgation of such a plan revision in the case of action by the Administrator under [section 7410\(c\)](#) of this title for purposes of this section);
- (5) the term “mandatory class I Federal areas” means Federal areas which may not be designated as other than class I under this part;
- (6) the terms “visibility impairment” and “impairment of visibility” shall include reduction in visual range and atmospheric discoloration; and
- (7) the term “major stationary source” means the following types of stationary sources with the potential to emit 250 tons or more of any pollutant: fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production facilities, chemical process plants, fossil-fuel boilers of more than 250 million British thermal units per hour heat input, petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels, taconite ore processing facilities, glass fiber processing plants, charcoal production facilities.



CREDIT(S)

(July 14, 1955, c. 360, Title I, § 169A, as added Aug. 7, 1977, [Pub.L. 95-95, Title I, § 128](#), 91 Stat. 742.)

Current through P.L. 112-142 (excluding P.L. 112-140 and 112-141) approved 7-9-12

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**C**

**Effective: December 12, 2006**

Code of Federal Regulations [Currentness](#)  
Title 40. Protection of Environment  
Chapter I. Environmental Protection  
Agency ([Refs & Annos](#))  
Subchapter C. Air Programs  
    ▣ [Part 51](#). Requirements for Preparation, Adoption, and Submittal of Implementation Plans ([Refs & Annos](#))  
        ▣ [Subpart P](#). Protection of Visibility ([Refs & Annos](#))  
            → **§ 51.308 Regional haze program requirements.**

(a) What is the purpose of this section?  
This section establishes requirements for implementation plans, plan revisions, and periodic progress reviews to address regional haze.

(b) When are the first implementation plans due under the regional haze program? Except as provided in [§ 51.309\(c\)](#), each State identified in [§ 51.300\(b\)\(3\)](#) must submit, for the entire State, an implementation plan for regional haze meeting the requirements of paragraphs (d) and (e) of this section no later than December 17, 2007.

(c) [Reserved]

(d) What are the core requirements for the implementation plan for regional haze? The State must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the

State which may be affected by emissions from within the State. To meet the core requirements for regional haze for these areas, the State must submit an implementation plan containing the following plan elements and supporting documentation for all required analyses:

(1) Reasonable progress goals. For each mandatory Class I Federal area located within the State, the State must establish goals (expressed in deciviews) that provide for reasonable progress towards achieving natural visibility conditions. The reasonable progress goals must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period.

(i) In establishing a reasonable progress goal for any mandatory Class I Federal area within the State, the State must:

(A) Consider the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected sources, and include a demonstration showing how these factors were taken into consideration in selecting the goal.

(B) Analyze and determine the rate of progress needed to attain natural visibility conditions by the year 2064. To calculate this rate of pro-

gress, the State must compare baseline visibility conditions to natural visibility conditions in the mandatory Federal Class I area and determine the uniform rate of visibility improvement (measured in deciviews) that would need to be maintained during each implementation period in order to attain natural visibility conditions by 2064. In establishing the reasonable progress goal, the State must consider the uniform rate of improvement in visibility and the emission reduction measures needed to achieve it for the period covered by the implementation plan.

(ii) For the period of the implementation plan, if the State establishes a reasonable progress goal that provides for a slower rate of improvement in visibility than the rate that would be needed to attain natural conditions by 2064, the State must demonstrate, based on the factors in paragraph (d)(1)(i)(A) of this section, that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable. The State must provide to the public for review as part of its implementation plan an assessment of the number of years it would take to attain natural conditions if visibility improvement continues at the rate of progress selected by the State as reasonable.

(iii) In determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions, the Administrator will evaluate the demon-

strations developed by the State pursuant to paragraphs (d)(1)(i) and (d)(1)(ii) of this section.

(iv) In developing each reasonable progress goal, the State must consult with those States which may reasonably be anticipated to cause or contribute to visibility impairment in the mandatory Class I Federal area. In any situation in which the State cannot agree with another such State or group of States that a goal provides for reasonable progress, the State must describe in its submittal the actions taken to resolve the disagreement. In reviewing the State's implementation plan submittal, the Administrator will take this information into account in determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions.

(v) The reasonable progress goals established by the State are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan to achieve the progress goal adopted by the State.

(vi) The State may not adopt a reasonable progress goal that represents less visibility improvement than is expected to result from implementation of other requirements of the CAA during the applicable planning period.

(2) Calculations of baseline and natural visibility conditions. For each mandatory Class I Federal area located within the State, the State must determine the following visibility conditions

(expressed in deciviews):

(i) Baseline visibility conditions for the most impaired and least impaired days. The period for establishing baseline visibility conditions is 2000 to 2004. Baseline visibility conditions must be calculated, using available monitoring data, by establishing the average degree of visibility impairment for the most and least impaired days for each calendar year from 2000 to 2004. The baseline visibility conditions are the average of these annual values. For mandatory Class I Federal areas without onsite monitoring data for 2000–2004, the State must establish baseline values using the most representative available monitoring data for 2000–2004, in consultation with the Administrator or his or her designee;

(ii) For an implementation plan that is submitted by 2003, the period for establishing baseline visibility conditions for the period of the first long-term strategy is the most recent 5–year period for which visibility monitoring data are available for the mandatory Class I Federal areas addressed by the plan. For mandatory Class I Federal areas without onsite monitoring data, the State must establish baseline values using the most representative available monitoring data, in consultation with the Administrator or his or her designee;

(iii) Natural visibility conditions for the most impaired and least impaired days. Natural visibility conditions must be calculated by estimating the degree of visibility impairment existing under

natural conditions for the most impaired and least impaired days, based on available monitoring information and appropriate data analysis techniques; and

(iv)(A) For the first implementation plan addressing the requirements of paragraphs (d) and (e) of this section, the number of deciviews by which baseline conditions exceed natural visibility conditions for the most impaired and least impaired days; or

(B) For all future implementation plan revisions, the number of deciviews by which current conditions, as calculated under paragraph (f)(1) of this section, exceed natural visibility conditions for the most impaired and least impaired days.

(3) Long-term strategy for regional haze. Each State listed in § 51.300(b)(3) must submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State which may be affected by emissions from the State. The long-term strategy must include enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas. In establishing its long-term strategy for regional haze, the State must meet the following requirements:

(i) Where the State has emissions that

are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another State or States, the State must consult with the other State(s) in order to develop coordinated emission management strategies. The State must consult with any other State having emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area within the State.

(ii) Where other States cause or contribute to impairment in a mandatory Class I Federal area, the State must demonstrate that it has included in its implementation plan all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for the area. If the State has participated in a regional planning process, the State must ensure it has included all measures needed to achieve its apportionment of emission reduction obligations agreed upon through that process.

(iii) The State must document the technical basis, including modeling, monitoring and emissions information, on which the State is relying to determine its apportionment of emission reduction obligations necessary for achieving reasonable progress in each mandatory Class I Federal area it affects. The State may meet this requirement by relying on technical analyses developed by the regional planning organization and approved by all State participants. The State must identify the baseline emissions inventory on which its strategies are based. The baseline emissions inventory year is presumed to be the most

recent year of the consolidated periodic emissions inventory.

(iv) The State must identify all anthropogenic sources of visibility impairment considered by the State in developing its long-term strategy. The State should consider major and minor stationary sources, mobile sources, and area sources.

(v) The State must consider, at a minimum, the following factors in developing its long-term strategy:

(A) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment;

(B) Measures to mitigate the impacts of construction activities;

(C) Emissions limitations and schedules for compliance to achieve the reasonable progress goal;

(D) Source retirement and replacement schedules;

(E) Smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the State for these purposes;

(F) Enforceability of emissions limitations and control measures; and

(G) The anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.

(4) Monitoring strategy and other implementation plan requirements. The State must submit with the implementation plan a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the State. This monitoring strategy must be coordinated with the monitoring strategy required in § 51.305 for reasonably attributable visibility impairment. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environments network. The implementation plan must also provide for the following:

(i) The establishment of any additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the State are being achieved.

(ii) Procedures by which monitoring data and other information are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the State.

(iii) For a State with no mandatory Class I Federal areas, procedures by which monitoring data and other in-

formation are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas in other States.

(iv) The implementation plan must provide for the reporting of all visibility monitoring data to the Administrator at least annually for each mandatory Class I Federal area in the State. To the extent possible, the State should report visibility monitoring data electronically.

(v) A statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area. The inventory must include emissions for a baseline year, emissions for the most recent year for which data are available, and estimates of future projected emissions. The State must also include a commitment to update the inventory periodically.

(vi) Other elements, including reporting, recordkeeping, and other measures, necessary to assess and report on visibility.

(e) Best Available Retrofit Technology (BART) requirements for regional haze visibility impairment. The State must submit an implementation plan containing emission limitations representing BART and schedules for compliance with BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area, unless the State demonstrates that an emissions



trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions.

(1) To address the requirements for BART, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:

(i) A list of all BART-eligible sources within the State.

(ii) A determination of BART for each BART-eligible source in the State that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area. All such sources are subject to BART.

(A) The determination of BART must be based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each BART-eligible source that is subject to BART within the State. In this analysis, the 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.

(B) The determination of BART for

fossil-fuel fired power plants having a total generating capacity greater than 750 megawatts must be made pursuant to the guidelines in appendix Y of this part (Guidelines for BART Determinations Under the Regional Haze Rule).

(C) Exception. A State is not required to make a determination of BART for SO<sub>2</sub> or for NO<sub>x</sub> if a BART-eligible source has the potential to emit less than 40 tons per year of such pollutant(s), or for PM<sub>10</sub> if a BART-eligible source has the potential to emit less than 15 tons per year of such pollutant.

(iii) If the State determines in establishing BART that technological or economic limitations on the applicability of measurement methodology to a particular source would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice, or other operational standard, or combination thereof, to require the application of BART. Such standard, to the degree possible, is to set forth the emission reduction to be achieved by implementation of such design, equipment, work practice or operation, and must provide for compliance by means which achieve equivalent results.

(iv) A requirement that each source subject to BART be required to install and operate BART as expeditiously as practicable, but in no event later than 5 years after approval of the implementation plan revision.

(v) A requirement that each source subject to BART maintain the control equipment required by this subpart and establish procedures to ensure such equipment is properly operated and maintained.

(2) A State may opt to implement or require participation in an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART. Such an emissions trading program or other alternative measure must achieve greater reasonable progress than would be achieved through the installation and operation of BART. For all such emission trading programs or other alternative measures, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:

(i) A demonstration that the emissions trading program or other alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State and covered by the alternative program. This demonstration must be based on the following:

(A) A list of all BART-eligible sources within the State.

(B) A list of all BART-eligible sources and all BART source categories covered by the alternative program. The State is not required to include every BART source category or every BART-eligible

source within a BART source category in an alternative program, but each BART-eligible source in the State must be subject to the requirements of the alternative program, have a federally enforceable emission limitation determined by the State and approved by EPA as meeting BART in accordance with [section 302\(c\)](#) or paragraph (e)(1) of this section, or otherwise addressed under paragraphs (e)(1) or (e)(4) of this section.

(C) An analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each source within the State subject to BART and covered by the alternative program. This analysis must be conducted by making a determination of BART for each source subject to BART and covered by the alternative program as provided for in paragraph (e)(1) of this section, unless the emissions trading program or other alternative measure has been designed to meet a requirement other than BART (such as the core requirement to have a long-term strategy to achieve the reasonable progress goals established by States). In this case, the State may determine the best system of continuous emission control technology and associated emission reductions for similar types of sources within a source category based on both source-specific and category-wide information, as appropriate.

(D) An analysis of the projected



emissions reductions achievable through the trading program or other alternative measure.

(E) A determination under paragraph (e)(3) of this section or otherwise based on the clear weight of evidence that the trading program or other alternative measure achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources.

(ii) [Reserved]

(iii) A requirement that all necessary emission reductions take place during the period of the first long-term strategy for regional haze. To meet this requirement, the State must provide a detailed description of the emissions trading program or other alternative measure, including schedules for implementation, the emission reductions required by the program, all necessary administrative and technical procedures for implementing the program, rules for accounting and monitoring emissions, and procedures for enforcement.

(iv) A demonstration that the emission reductions resulting from the emissions trading program or other alternative measure will be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP.

(v) At the State's option, a provision that the emissions trading program or

other alternative measure may include a geographic enhancement to the program to address the requirement under § 51.302(c) related to BART for reasonably attributable impairment from the pollutants covered under the emissions trading program or other alternative measure.

(vi) For plans that include an emissions trading program that establishes a cap on total annual emissions of SO<sub>2</sub> or NO<sub>x</sub> from sources subject to the program, requires the owners and operators of sources to hold allowances or authorizations to emit equal to emissions, and allows the owners and operators of sources and other entities to purchase, sell, and transfer allowances, the following elements are required concerning the emissions covered by the cap:

(A) Applicability provisions defining the sources subject to the program. The State must demonstrate that the applicability provisions (including the size criteria for including sources in the program) are designed to prevent any significant potential shifting within the State of production and emissions from sources in the program to sources outside the program. In the case of a program covering sources in multiple States, the States must demonstrate that the applicability provisions in each State cover essentially the same size facilities and, if source categories are specified, cover the same source categories and prevent any significant, potential shifting within such States of production and emissions to sources outside the program.

(B) Allowance provisions ensuring that the total value of allowances (in tons) issued each year under the program will not exceed the emissions cap (in tons) on total annual emissions from the sources in the program.

(C) Monitoring provisions providing for consistent and accurate measurements of emissions from sources in the program to ensure that each allowance actually represents the same specified tonnage of emissions and that emissions are measured with similar accuracy at all sources in the program. The monitoring provisions must require that boilers, combustion turbines, and cement kilns in the program allowed to sell or transfer allowances must comply with the requirements of part 75 of this chapter. The monitoring provisions must require that other sources in the program allowed to sell or transfer allowances must provide emissions information with the same precision, reliability, accessibility, and timeliness as information provided under part 75 of this chapter.

(D) Recordkeeping provisions that ensure the enforceability of the emissions monitoring provisions and other program requirements. The recordkeeping provisions must require that boilers, combustion turbines, and cement kilns in the program allowed to sell or transfer allowances must comply with the recordkeeping provisions of part 75 of this chapter. The recordkeeping provisions must require that other

sources in the program allowed to sell or transfer allowances must comply with recordkeeping requirements that, as compared with the recordkeeping provisions under part 75 of this chapter, are of comparable stringency and require recording of comparable types of information and retention of the records for comparable periods of time.

(E) Reporting provisions requiring timely reporting of monitoring data with sufficient frequency to ensure the enforceability of the emissions monitoring provisions and other program requirements and the ability to audit the program. The reporting provisions must require that boilers, combustion turbines, and cement kilns in the program allowed to sell or transfer allowances must comply with the reporting provisions of part 75 of this chapter, except that, if the Administrator is not the tracking system administrator for the program, emissions may be reported to the tracking system administrator, rather than to the Administrator. The reporting provisions must require that other sources in the program allowed to sell or transfer allowances must comply with reporting requirements that, as compared with the reporting provisions under part 75 of this chapter, are of comparable stringency and require reporting of comparable types of information and require comparable timeliness and frequency of reporting.

(F) Tracking system provisions which provide for a tracking system

that is publicly available in a secure, centralized database to track in a consistent manner all allowances and emissions in the program.

(G) Authorized account representative provisions ensuring that the owners and operators of a source designate one individual who is authorized to represent the owners and operators in all matters pertaining to the trading program.

(H) Allowance transfer provisions providing procedures that allow timely transfer and recording of allowances, minimize administrative barriers to the operation of the allowance market, and ensure that such procedures apply uniformly to all sources and other potential participants in the allowance market.

(I) Compliance provisions prohibiting a source from emitting a total tonnage of a pollutant that exceeds the tonnage value of its allowance holdings, including the methods and procedures for determining whether emissions exceed allowance holdings. Such method and procedures shall apply consistently from source to source.

(J) Penalty provisions providing for mandatory allowance deductions for excess emissions that apply consistently from source to source. The tonnage value of the allowances deducted shall equal at least three times the tonnage of the excess emissions.

(K) For a trading program that allows banking of allowances, provisions clarifying any restrictions on the use of these banked allowances.

(L) Program assessment provisions providing for periodic program evaluation to assess whether the program is accomplishing its goals and whether modifications to the program are needed to enhance performance of the program.

(3) A State which opts under 40 CFR 51.308(e)(2) to implement an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART may satisfy the final step of the demonstration required by that section as follows: If the distribution of emissions is not substantially different than under BART, and the alternative measure results in greater emission reductions, then the alternative measure may be deemed to achieve greater reasonable progress. If the distribution of emissions is significantly different, the State must conduct dispersion modeling to determine differences in visibility between BART and the trading program for each impacted Class I area, for the worst and best 20 percent of days. The modeling would demonstrate “greater reasonable progress” if both of the following two criteria are met:

(i) Visibility does not decline in any Class I area, and

(ii) There is an overall improvement in visibility, determined by comparing the

average differences between BART and the alternative over all affected Class I areas.

<Text of subsection (e)(4) effective until Aug. 6, 2012.>

(4) A State that chooses to meet the emission reduction requirements of the Clean Air Interstate Rule (CAIR) by participating in one or more of the EPA-administered CAIR trading programs for SO<sub>2</sub> and NO<sub>x</sub> need not require BART-eligible EGUs subject to such trading programs in the State to install, operate, and maintain BART for the pollutants covered by such trading programs in the State. A State may choose to participate in the EPA-administered CAIR trading programs either by submitting a State implementation plan that incorporates the CAIR model trading rules in part 96 of this chapter, and is approved, in accordance with § 51.123(o)(1) or (2) (for the NO<sub>x</sub> annual program) and (aa)(1) or (2) (for the NO<sub>x</sub> ozone season program) and § 51.124(o)(1) or (2) (for the SO<sub>2</sub> program) or by remaining subject to the Federal implementation plan in part 97 of this chapter (which may be modified by a State implementation plan approved in accordance with §§ 51.123(p) and (ee) and 51.124(r)). A State that chooses to participate in such trading programs may also adopt provisions, consistent with such trading programs, for a geographic enhancement to the program to address the requirement under § 51.302(c) related to BART for reasonably attributable impairment from the pollutants covered by the CAIR cap-and-trade programs.

<Text of subsection (e)(4) effective Aug. 6, 2012.>

(4) A State subject to a trading program established in accordance with § 52.38 or § 52.39 under a Transport Rule Federal Implementation Plan need not require BART-eligible fossil fuel-fired steam electric plants in the State to install, operate, and maintain BART for the pollutant covered by such trading program in the State. A State that chooses to meet the emission reduction requirements of the Transport Rule by submitting a SIP revision that establishes a trading program and is approved as meeting the requirements of § 52.38 or § 52.39 also need not require BART-eligible fossil fuel-fired steam electric plants in the State to install, operate, and maintain BART for the pollutant covered by such trading program in the State. A State may adopt provisions, consistent with the requirements applicable to the State for a trading program established in accordance with § 52.38 or § 52.39 under the Transport Rule Federal Implementation Plan or established under a SIP revision that is approved as meeting the requirements of § 52.38 or § 52.39, for a geographic enhancement to the program to address the requirement under § 51.302(c) related to BART for reasonably attributable impairment from the pollutant covered by such trading program in that State.

(5) After a State has met the requirements for BART or implemented emissions trading program or other alternative measure that achieves more reasonable progress than the installation and operation of BART, BART-eligible

sources will be subject to the requirements of paragraph (d) of this section in the same manner as other sources.

(6) Any BART-eligible facility subject to the requirement under paragraph (e) of this section to install, operate, and maintain BART may apply to the Administrator for an exemption from that requirement. An application for an exemption will be subject to the requirements of § 51.303(a)(2)-(h).

(f) Requirements for comprehensive periodic revisions of implementation plans for regional haze. Each State identified in § 51.300(b)(3) must revise and submit its regional haze implementation plan revision to EPA by July 31, 2018 and every ten years thereafter. In each plan revision, the State must evaluate and reassess all of the elements required in paragraph (d) of this section, taking into account improvements in monitoring data collection and analysis techniques, control technologies, and other relevant factors. In evaluating and reassessing these elements, the State must address the following:

(1) Current visibility conditions for the most impaired and least impaired days, and actual progress made towards natural conditions during the previous implementation period. The period for calculating current visibility conditions is the most recent five year period preceding the required date of the implementation plan submittal for which data are available. Current visibility conditions must be calculated based on the annual average level of visibility impairment for the most and least impaired days for each of these five years.

Current visibility conditions are the average of these annual values.

(2) The effectiveness of the long-term strategy for achieving reasonable progress goals over the prior implementation period(s); and

(3) Affirmation of, or revision to, the reasonable progress goal in accordance with the procedures set forth in paragraph (d)(1) of this section. If the State established a reasonable progress goal for the prior period which provided a slower rate of progress than that needed to attain natural conditions by the year 2064, the State must evaluate and determine the reasonableness, based on the factors in paragraph (d)(1)(i)(A) of this section, of additional measures that could be adopted to achieve the degree of visibility improvement projected by the analysis contained in the first implementation plan described in paragraph (d)(1)(i)(B) of this section.

(g) Requirements for periodic reports describing progress towards the reasonable progress goals. Each State identified in § 51.300(b)(3) must submit a report to the Administrator every 5 years evaluating progress towards the reasonable progress goal for each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State. The first progress report is due 5 years from submittal of the initial implementation plan addressing paragraphs (d) and (e) of this section. The progress reports must be in the form of implementation plan revisions that comply with the procedural requirements



of § 51.102 and § 51.103. Periodic progress reports must contain at a minimum the following elements:

(1) A description of the status of implementation of all measures included in the implementation plan for achieving reasonable progress goals for mandatory Class I Federal areas both within and outside the State.

(2) A summary of the emissions reductions achieved throughout the State through implementation of the measures described in paragraph (g)(1) of this section.

(3) For each mandatory Class I Federal area within the State, the State must assess the following visibility conditions and changes, with values for most impaired and least impaired days expressed in terms of 5-year averages of these annual values.

(i) The current visibility conditions for the most impaired and least impaired days;

(ii) The difference between current visibility conditions for the most impaired and least impaired days and baseline visibility conditions;

(iii) The change in visibility impairment for the most impaired and least impaired days over the past 5 years;

(4) An analysis tracking the change over the past 5 years in emissions of pollutants contributing to visibility

impairment from all sources and activities within the State. Emissions changes should be identified by type of source or activity. The analysis must be based on the most recent updated emissions inventory, with estimates projected forward as necessary and appropriate, to account for emissions changes during the applicable 5-year period.

(5) An assessment of any significant changes in anthropogenic emissions within or outside the State that have occurred over the past 5 years that have limited or impeded progress in reducing pollutant emissions and improving visibility.

(6) An assessment of whether the current implementation plan elements and strategies are sufficient to enable the State, or other States with mandatory Federal Class I areas affected by emissions from the State, to meet all established reasonable progress goals.

(7) A review of the State's visibility monitoring strategy and any modifications to the strategy as necessary.

(h) Determination of the adequacy of existing implementation plan. At the same time the State is required to submit any 5-year progress report to EPA in accordance with paragraph (g) of this section, the State must also take one of the following actions based upon the information presented in the progress report:

(1) If the State determines that the existing implementation plan requires no further substantive revision at this time

in order to achieve established goals for visibility improvement and emissions reductions, the State must provide to the Administrator a negative declaration that further revision of the existing implementation plan is not needed at this time.

(2) If the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another State(s) which participated in a regional planning process, the State must provide notification to the Administrator and to the other State(s) which participated in the regional planning process with the States. The State must also collaborate with the other State(s) through the regional planning process for the purpose of developing additional strategies to address the plan's deficiencies.

(3) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources in another country, the State shall provide notification, along with available information, to the Administrator.

(4) Where the State determines that the implementation plan is or may be inadequate to ensure reasonable progress due to emissions from sources within the State, the State shall revise its implementation plan to address the plan's deficiencies within one year.

(i) What are the requirements for State and Federal Land Manager coordination?

(1) By November 29, 1999, the State must identify in writing to the Federal Land Managers the title of the official to which the Federal Land Manager of any mandatory Class I Federal area can submit any recommendations on the implementation of this subpart including, but not limited to:

(i) Identification of impairment of visibility in any mandatory Class I Federal area(s); and

(ii) Identification of elements for inclusion in the visibility monitoring strategy required by § 51.305 and this section.

(2) The State must provide the Federal Land Manager with an opportunity for consultation, in person and at least 60 days prior to holding any public hearing on an implementation plan (or plan revision) for regional haze required by this subpart. This consultation must include the opportunity for the affected Federal Land Managers to discuss their:

(i) Assessment of impairment of visibility in any mandatory Class I Federal area; and

(ii) Recommendations on the development of the reasonable progress goal and on the development and implementation of strategies to address visibility impairment.

(3) In developing any implementation plan (or plan revision), the State must include a description of how it addressed any comments provided by the

Federal Land Managers.

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(4) The plan (or plan revision) must provide procedures for continuing consultation between the State and Federal Land Manager on the implementation of the visibility protection program required by this subpart, including development and review of implementation plan revisions and 5-year progress reports, and on the implementation of other programs having the potential to contribute to impairment of visibility in mandatory Class I Federal areas.

[[64 FR 35765](#), July 1, 1999; [70 FR 39156](#), July 6, 2005; [71 FR 60631](#), Oct. 13, 2006; [77 FR 33656](#), June 7, 2012]

SOURCE: [36 FR 22398](#), Nov. 25, 1971; [45 FR 80089](#), Dec. 2, 1980; [52 FR 24712](#), July 1, 1987; [55 FR 14249](#), April 17, 1990; [56 FR 42219](#), Aug. 26, 1991; [57 FR 32334](#), July 21, 1992; [57 FR 52987](#), Nov. 5, 1992; [58 FR 38821](#), July 20, 1993; [60 FR 40100](#), Aug. 7, 1995; [62 FR 8328](#), Feb. 24, 1997; [62 FR 43801](#), Aug. 15, 1997; [62 FR 44903](#), Aug. 25, 1997; [63 FR 24433](#), May 4, 1998; [64 FR 35763](#), July 1, 1999; [65 FR 45532](#), July 24, 2000; [72 FR 28613](#), May 22, 2007, unless otherwise noted.

AUTHORITY: [23 U.S.C. 101](#); [42 U.S.C. 7401 – 7671q](#).; Secs. 110, 114, 121, 160–169, 169A, and 301 of the Clean Air Act, ([42 U.S.C. 7410](#), [7414](#), [7421](#), [7470–7479](#), and [7601](#)).

40 C. F. R. § 51.308, 40 CFR § 51.308

Current through June 28, 2012; [77 FR 38535](#).



**C**

**Effective: August 11, 2011**

Code of Federal Regulations [Currentness](#)

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency ([Refs & Annos](#))

Subchapter C. Air Programs

▣ [Part 52](#). Approval and Promulgation of Implementation Plans ([Refs & Annos](#))

▣ [Subpart A](#). General Provisions ([Refs & Annos](#))

→ **§ 52.02 Introduction.**

(a) This part sets forth the Administrator's approval and disapproval of State plans and the Administrator's promulgation of such plans or portions thereof. Approval of a plan or any portion thereof is based upon a determination by the Administrator that such plan or portion meets the requirements of section 110 of the Act and the provisions of Part 51 of this chapter.

(b) Any plan or portion thereof promulgated by the Administrator substitutes for a State plan or portion thereof disapproved by the Administrator or not submitted by a State, or supplements a State plan or portion thereof. The promulgated provisions, together with any portions of a State plan approved by the Administrator, constitute the applicable plan for purposes of the Act.

(c) Where nonregulatory provisions of a plan are disapproved, the disapproval is noted in this part and a detailed evaluation is provided to the State, but no substitute provisions are promulgated by the Administrator.

(d) All approved plans and plan revisions listed in subparts B through DDD of this part and on file at the Office of the Federal Register are approved for incorporation by reference by the Director of the Federal Register in accordance with [5 U.S.C. 552\(a\)](#) and 1 CFR part 51. Notice of amendments to the plans will be published in the Federal Register. The plans and plan revisions are available for inspection at the Office of the Federal Register, 800 North Capitol Street, N.W., suite 700, Washington, D.C. In addition the plans and plan revisions are available at the following locations:

(1) Office of Air and Radiation, Docket and Information Center (Air Docket), EPA, 401 M St., SW., Room M1500, Washington, DC 20460.

(2) The appropriate EPA Regional Office as listed below:

(i) Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. Environmental Protection Agency, Region 1, 5 Post Office Square--Suite 100, Boston, MA 02109-3912.

(ii) New York, New Jersey, Puerto Rico, and Virgin Islands. Environmental Protection Agency, Region 2, 290 Broadway, New York, NY 10007-1866.

(iii) Delaware, District of Columbia, Pennsylvania, Maryland, Virginia, and West Virginia. Environmental Protection Agency, Region 3, 1650 Arch

Street, Philadelphia, PA 19103–2029.

Seattle, WA 98101.

(iv) Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. Environmental Protection Agency, Region 4, 61 Forsyth Street, Atlanta, Georgia 30303.

(e) Each State's plan is dealt with in a separate subpart, which includes an introductory section identifying the plan by name and the date of its submittal, a section classifying regions, and a section setting forth dates for attainment of the national standards. Additional sections are included as necessary to specifically identify disapproved provisions, to set forth reasons for disapproval, and to set forth provisions of the plan promulgated by the Administrator. Except as otherwise specified, all supplemental information submitted to the Administrator with respect to any plan has been submitted by the Governor of the State.

(v) Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, IL 60604–3507.

(f) Revisions to applicable plans will be included in this part when approved or promulgated by the Administrator.

(vi) Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. Environmental Protection Agency, Region 6, Fountain Place, 1445 Ross Avenue, Suite 1200, Dallas TX 75202–2733.

(vii) Iowa, Kansas, Missouri, and Nebraska. Environmental Protection Agency, Region 7, 901 North 5th Street, Kansas City, KS 66101.

[37 FR 10846, May 31, 1972, as amended at 37 FR 15080, July 27, 1972; 39 FR 33512, Sept. 18, 1974; 47 FR 38886, Sept. 3, 1982; 61 FR 16060, April 11, 1996; 63 FR 6483, Feb. 9, 1998; 66 FR 34376, June 28, 2001; 72 FR 38793, July 16, 2007; 76 FR 49671, Aug. 11, 2011]

(viii) Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. Environmental Protection Agency, Region 8, 1595 Wynkoop Street, Denver, CO 80202–1129.

SOURCE: 57 FR 27936, 27939, 27942; 37 FR 10846, May 31, 1972; 50 FR 31369, Aug. 2, 1985; 57 FR 32336, July 21, 1992; 57 FR 37104, Aug. 18, 1992; 58 FR 6606, Feb. 1, 1993; 58 FR 38883, July 20, 1993; 59 FR 39859, Aug. 4, 1994; 62 FR 8328, Feb. 24, 1997, unless otherwise noted.

(ix) Arizona, California, Hawaii, Nevada, American Samoa, and Guam. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, CA 94105.

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

(x) Alaska, Idaho, Oregon, and Washington. Environmental Protection Agency, Region 10, 1200 6th Avenue

40 C. F. R. § 52.02, 40 CFR § 52.02

Current through August 23, 2012; 77 FR

50953.

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PROPOSED RULES  
ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 51

[EPA-R09-OAR-2011-0130, FRL-9320-5]

Approval and Promulgation of Air Quality Implementation Plans; State of Nevada; Regional Haze  
State Implementation Plan

Wednesday, June 22, 2011

AGENCY: Environmental Protection Agency (EPA).

\***36450** ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve a revision to the Nevada State Implementation Plan (SIP) to implement the regional haze program for the first planning period through July 31, 2018. The Clean Air Act (CAA) requires states to prevent any future and remedy any existing man-made impairment of visibility in 156 national parks and wilderness areas designated as Class I areas. Regional haze is caused by emissions of air pollutants from numerous sources located over a broad geographic area. States must submit SIPs that assure reasonable progress toward the national goal of achieving natural visibility conditions in Class I areas.

DATES: Written comments must be received at the address below on or before July 22, 2011.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2011-0130 by one of the following methods:

1. Federal Rulemaking portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
2. E-mail: [Webb.Thomas@epa.gov](mailto:Webb.Thomas@epa.gov).
3. Fax: 415-947-3579 (Attention: Thomas Webb).
4. Mail: Thomas Webb, EPA Region 9, Planning Office, Air Division, 75 Hawthorne Street, San Francisco, California 94105.
5. Hand Delivery or Courier: Such deliveries are only accepted Monday through Friday, 8:30 a.m.-4:30 p.m., excluding Federal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R09-OAR-2011-**\*36451** 0130. Our policy is that EPA will include all comments received in the public docket without change. EPA may make

comments available online at <http://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. Do not submit information that you consider to be CBI or otherwise protected through <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an “anonymous access” system, which means EPA 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 EPA, without going through <http://www.regulations.gov>, EPA will include your e-mail address as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends 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 EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA 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. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available (e.g., CBI or other information whose disclosure is restricted by statute). Certain other material, such as copyrighted material, will be publicly available only in hard copy form. Publicly available docket materials are available either electronically at <http://www.regulations.gov> or in hard copy at the Planning Office of the Air Division, Air-2, EPA Region 9, 75 Hawthorne Street, San Francisco, CA 94105. EPA requests you contact the individual listed in the FOR FURTHER INFORMATION CONTACT section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 9-5:30 PST, excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Thomas Webb, U.S. EPA, Region 9, Planning Office, Air Division, Air-2, 75 Hawthorne Street, San Francisco, CA 94105. Thomas Webb can be reached at telephone number (415) 947-4139 and via electronic mail at [webb.thomas@epa.gov](mailto:webb.thomas@epa.gov).

SUPPLEMENTARY INFORMATION: Throughout this document wherever “we,” “us,” or “our,” is used, we mean the United States Environmental Protection Agency (EPA).

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The Nevada Division of Environmental Protection (NDEP) adopted and transmitted its “Nevada Re-



gional Haze State Implementation Plan” (Nevada RH SIP) to EPA Region 9 in a letter dated November 18, 2009. EPA determined the plan complete by operation of law on May 18, 2010. The SIP was properly noticed by the State and available for public comment for 30 days prior to a public hearing held in Carson City, Nevada, on May 20, 2009. There was a separate public notice and hearing on the proposed Best Available Retrofit Technology (BART) controls for four stationary sources, which the State adopted on April 23, 2009. The State submitted to EPA additional documentation of public process and adoption of a more stringent emission limit for one of the BART sources on February 18, 2010. Nevada included in its SIP responses to written comments from EPA Region 9, the National Park Service, and a consortium of conservation organizations. As a result of the State's participation with 13 other states, Tribal nations and Federal agencies in the Western Regional Air Partnership (WRAP), Nevada's RH SIP reflects a consistent approach toward addressing regional visibility impairment at 116 Class I areas in the West.

## II. Background

### A. Description of Regional Haze

Regional haze is the impairment of visibility across a broad geographic area produced by numerous sources and activities that emit fine particles and their precursors, primarily sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>), and in some cases, ammonia (NH<sub>3</sub>) and volatile organic compounds (VOC). Fine particle precursors react in the atmosphere to form fine particulate matter (PM<sub>2.5</sub>), primarily sulfates, nitrates, organic carbon, elemental carbon, and soil dust, which impair visibility by scattering and absorbing light. Visibility impairment reduces the clarity, color, and visible distance that one can see. PM<sub>2.5</sub> can also cause **\*36452** serious health effects and mortality in humans and contributes to environmental effects such as acid deposition and eutrophication.

Data from existing visibility monitors, the “Interagency Monitoring of Protected Visual Environments” (IMPROVE) network, indicate that visibility impairment caused by air pollution occurs virtually all the time at most Federally protected national parks and wilderness areas, known as Class I areas. The average visual range in many Class I areas in the western United States is 100 to 150 kilometers, or about one-half to two-thirds of the visual range that would exist without man-made air pollution.[FN1] In most of the eastern Class I areas of the United States, the average visual range is less than 30 kilometers, or about one-fifth of the visual range that would exist under estimated natural conditions. [64 FR 35715 \(July 1, 1999\)](#).

FN1 Visual range is the greatest distance, in kilometers or miles, at which one can view a dark object against the sky.

### B. History of Regional Haze Regulations

In section 169(A)(1) of the 1977 Amendments to the CAA, Congress established as a national goal the “prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from man-made air pollution.” Visibility was determined to be an important value in 156 mandatory Class I Federal areas [FN2] as listed in [40 CFR 81.400-437](#). In the first phase of visibility protection, EPA promulgated regulations on December 2, 1980, to address visibility impairment in Class I areas that is “reasonably attributable” to a single source or small group of sources, i.e., “reasonably attributable visibility impairment” or RAVI. [45 FR](#)



80084. EPA deferred action on regional haze that emanates from a variety of sources until monitoring, modeling and scientific knowledge about the relationship between pollutants and visibility impairment were improved.

FN2 Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6000 acres, wilderness areas and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a). In accordance with section 169A of the CAA, EPA, in consultation with the Department of Interior, promulgated a list of 156 areas where visibility is identified as an important value. 44 FR 69122 (November 30, 1979). Although states and Tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to “mandatory Class I Federal areas.” Each mandatory Class I Federal area is the responsibility of a “Federal Land Manager.” 42 U.S.C. 7602(i). When we use the term “Class I area” in this action, we mean a “mandatory Class I Federal area.”

Congress added section 169B to the CAA in 1990 to conduct scientific research on regional haze. This legislation established the Grand Canyon Visibility Transport Commission (GCVTC), which issued its report, “Recommendations for Improving Western Vistas,” on June 10, 1996. These recommendations informed the regulatory development of a regional haze program, and provided an option for certain western states to address visibility at 16 Class I areas on the Colorado Plateau under 40 CFR 51.309.

EPA promulgated a rule to address regional haze on July 1, 1999 known as the Regional Haze Rule (RHR) (64 FR 35713). The RHR revised the existing visibility regulations to include provisions addressing regional haze impairment and established a comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at 40 CFR 51.308 and 51.309, are included in EPA's visibility protection regulations at 40 CFR 51.300-309. Some of the major elements of the RHR requirements are summarized in section III of this notice. The requirement to submit a regional haze plan revision applies to all 50 states, the District of Columbia, and the Virgin Islands. States were required to submit the first implementation plan addressing regional haze visibility impairment no later than December 17, 2007. 40 CFR 51.308(b). Since most states, including Nevada, did not submit SIPs prior to the deadline, EPA made a Finding of Failure to Submit that extended the deadline to January 15, 2011, for EPA to approve a SIP or publish a Federal Implementation Plan (FIP). 74 FR 2392 (January 15, 2009). EPA is publishing this proposal to meet this obligation.

### *C. Roles of Agencies in Addressing Regional Haze*

Successful implementation of the regional haze program will require long-term coordination among states, Tribal governments and various Federal agencies. As noted above, pollution affecting the air quality in Class I areas can result from the transport of pollutants over long distances, even hundreds of kilometers. Therefore, states and Tribal nations need to develop coordinated strategies to take into account the effect of emissions from one jurisdiction on the air quality in another. To support a regional approach to the planning process, EPA founded five regional planning organizations (RPOs) to

assist states and Tribes in addressing regional haze and related issues. The RPOs first evaluated technical information to better understand how emissions impact Class I areas across the country, and then pursued the development of regional strategies to reduce pollutants contributing to regional haze.

The Western Regional Air Partnership (WRAP), one of five RPOs nationally, is a voluntary partnership of State, Tribal, Federal, and local air agencies focusing on improving visibility at 116 Class I areas in the West. WRAP member states include: Alaska, Arizona, California, Colorado, Idaho, Montana, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming. WRAP Tribal members include Campo Band of Kumeyaay Indians, Confederated Salish and Kootenai Tribes, Cortina Indian Rancheria, Hopi Tribe, Hualapai Nation of the Grand Canyon, Native Village of Shungnak, Nez Perce Tribe, Northern Cheyenne Tribe, Pueblo of Acoma, Pueblo of San Felipe, and Shoshone-Bannock Tribes of Fort Hall. While Nevada is not a formal member of the WRAP, State representatives participated fully in the WRAP and relied on its technical services and products as the basis for its plan.

While EPA regulates visibility at Class I areas, Federal Land Managers (FLMs) from the National Park Service, Fish and Wildlife Service, and Forest Service have a special role in the program because they have primary jurisdiction over Class I areas. FLMs may submit comments and make recommendations on a state's plan, and states are required to coordinate and consult with FLMs on most major planning and implementation requirements.

### III. Requirements for Regional Haze SIPs

#### *A. Regional Haze Rule*

Regional haze SIPs must establish a long-term strategy that ensures reasonable progress toward achieving natural visibility conditions in each Class I area affected by the state's emissions. For each Class I area within its boundaries, the state must establish a reasonable progress goal (RPG) for the first planning period that ends on July 31, 2018. The long-term strategy must include enforceable emission limits and other measures as necessary to achieve the RPG. State implementation plans 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. These sources, where appropriate, are required to install Best Available Retrofit Technology (BART) controls to eliminate or reduce visibility \*36453 impairment. The specific regional haze SIP requirements are summarized below.

#### *B. Determination of Baseline, Natural and Current Visibility Conditions*

The RHR establishes the deciview (dv) as the principal metric for measuring visibility. This visibility metric expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Visibility expressed in deciviews is determined by using air quality measurements to estimate light extinction and then transforming the value of light extinction to deciviews using a logarithmic function. The deciview is a more useful measure for tracking progress in improving visibility than light extinction because each deciview change is an equal incremental change in visibility as perceived by the human eye. Most people can detect a change in visibility at one deciview.[FN3]

FN3 The preamble to the RHR provides additional details about the deciview. 64 FR 35714, 35725 (July 1, 1999).

The deciview is used to express reasonable progress goals; define visibility conditions; and track changes in visibility. To track changes in visibility at each of the 156 Class I areas covered by the visibility program (40 CFR 81.401-437), and as part of the process for determining reasonable progress, states must calculate the degree of existing visibility impairment at each Class I area and periodically review progress midway through each ten-year implementation period. To do this, the RHR requires states to determine the degree of impairment (in deciviews) for the average of the 20 percent least impaired (“best”) and 20 percent most impaired (“worst”) visibility days over a specified time period at each of their Class I areas. In addition, states must develop an estimate of natural visibility conditions for the purpose of comparing progress toward the national goal. Natural visibility is determined by estimating the natural concentrations of pollutants that cause visibility impairment and then calculating total light extinction based on those estimates. EPA has provided guidance to states regarding how to calculate baseline, natural and current visibility conditions in documents titled, EPA’s Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule, September 2003, (EPA-454/B-03-005 located at <http://www.epa.gov/ttncaaa1/t1/memoranda/rh—envcurhr—gd.pdf>), (hereinafter referred to as “EPA’s 2003 Natural Visibility Guidance”), and Guidance for Tracking Progress Under the Regional Haze Rule (EPA-454/B-03-004 September 2003 located at <http://www.epa.gov/ttncaaa1/t1/memoranda/rh—tpurhr—gd.pdf>), hereinafter referred to as “EPA’s 2003 Tracking Progress Guidance”).

For the first regional haze SIPS that were due by December 17, 2007, “baseline visibility conditions” were the starting points for assessing “current” visibility impairment. Baseline visibility conditions represent the degree of visibility impairment for the 20 percent least impaired days and 20 percent most impaired days for each calendar year from 2000 to 2004. Using monitoring data for 2000 through 2004, states are required to calculate the average degree of visibility impairment for each Class I area, based on the average of annual values over the five-year period. The comparison of initial baseline visibility conditions to natural visibility conditions indicates the amount of improvement necessary to attain natural visibility, while the future comparison of baseline conditions to the then current conditions will indicate the amount of progress. In general, the 2000-2004 baseline period is considered the time from which improvement in visibility is measured.

### *C. Determination of Reasonable Progress Goals*

The vehicle for ensuring continuing progress towards achieving the natural visibility goal is the submission of a series of regional haze SIPs that establish two RPGs (i.e., two distinct goals, one for the “best” and one for the “worst” days) for every Class I area for each (approximately) ten-year implementation period. The RHR does not mandate specific milestones or rates of progress, but instead calls for states to establish goals that provide for “reasonable progress” toward achieving natural (i.e., “background”) visibility conditions. In setting reasonable progress goals (RPGs), states must provide for an improvement in visibility for the most impaired days over the (approximately) ten-year period of the SIP, and ensure no degradation in visibility for the least impaired days over the same period.

States have significant discretion in establishing RPGs, but are required to consider the following

factors established in section 169A of the CAA and in EPA's RHR at 40 CFR 51.308(d)(1)(i)(A): (1) The costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources. States must demonstrate in their SIPs how these factors are considered when selecting the RPGs for the best and worst days for each applicable Class I area. States have considerable flexibility in how they take these factors into consideration, as noted in EPA's Guidance for Setting Reasonable Progress Goals under the Regional Haze Program, July 1, 2007, memorandum from William L. Wehrum, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, EPA Regions 1-10 (pp. 4-2, 5-1) ("EPA's Reasonable Progress Guidance"). In setting the RPGs, states must also consider the rate of progress needed to reach natural visibility conditions by 2064 (referred to as the "uniform rate of progress" (URP) or the "glide path") and the emission reduction measures needed to achieve that rate of progress over the ten-year period of the SIP. Uniform progress towards achievement of natural conditions by the year 2064 represents a rate of progress that states are to use for analytical comparison to the amount of progress they expect to achieve. In setting RPGs, each state with one or more Class I areas ("Class I state") must also consult with potentially "contributing states," i.e., other nearby states with emission sources that may be affecting visibility impairment at the Class I state's areas. 40 CFR 51.308(d)(1)(iv).

#### *D. Best Available Retrofit Technology*

Section 169A of the CAA directs states to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, section 169A(b)(2)(A) of the CAA requires states to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the natural visibility goal, including a requirement that certain categories of existing major stationary sources [FN4] built between 1962 and 1977 procure, install, and operate the "Best Available Retrofit Technology" as determined by the state. Under the RHR, states are directed to conduct BART determinations for such "BART-eligible" 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 to adopt an emissions trading program or other alternative program as \*36454 long as the alternative provides greater reasonable progress towards improving visibility than BART.

FN4 The set of "major stationary sources" potentially subject to BART is listed in CAA section 169A(g)(7).

EPA published on July 6, 2005, 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 in determining appropriate emission limits for each applicable source. In making a BART determination for a fossil fuel-fired electric generating plant with a total generating capacity in excess of 750 megawatts, a state must use the approach set forth in the BART Guidelines. A state is encouraged, but not required, to follow the BART Guidelines in making BART determinations for other types of sources.

States must address all visibility-impairing pollutants emitted by a source in the BART determination process. The most significant visibility impairing pollutants are SO<sub>2</sub>, NO<sub>x</sub> and PM. EPA has indicated that states should use their best judgment in determining whether VOC or NH<sub>3</sub> compounds im-

pair visibility in Class I areas.

Under the BART Guidelines, states may select an exemption threshold value for their BART modeling, 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 exemption threshold value in the SIP and must state the basis for its selection of that value. Any source with emissions that model above the threshold value would be subject to a BART determination review. The BART 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. An exemption threshold set by the state should not be higher than 0.5 deciview.

In their SIPs, states must identify potential BART sources, described in the RHR as "BART-eligible 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 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 in operation as expeditiously as practicable, but no later than five years after the date EPA approves 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. States have the flexibility to choose the type of control measures they will use to meet the requirements of BART.

#### *E. Long-Term Strategy*

Consistent with the requirement in section 169A(b) of the CAA that states include in their regional haze SIP a ten- to fifteen-year strategy for making reasonable progress, section 51.308(d)(3) of the RHR requires that states include a long-term strategy (LTS) in their regional haze SIPs. The LTS is the compilation of all control measures a state will use during the implementation period of the specific SIP submittal to meet applicable RPGs. The LTS must include "enforceable emissions limitations, compliance schedules, and other measures needed to achieve the reasonable progress goals" for all Class I areas within and affected by emissions from the state. [40 CFR 51.308\(d\)\(3\)](#).

When a state's emissions are reasonably anticipated to cause or contribute to visibility impairment in a Class I area located in another state, the RHR requires the impacted state to coordinate with contributing states to develop coordinated emissions management strategies. [40 CFR 51.308\(d\)\(3\)\(i\)](#). In such cases, the contributing state must demonstrate that it has included in its SIP, all measures necessary to obtain its share of the emission reductions needed to meet the RPGs for the Class I area. The RPOs have provided forums for significant interstate consultation, but additional consultation between states may be required to sufficiently address interstate visibility issues (e.g., where two



states belong to different RPOs).

States should consider all types of anthropogenic sources of visibility impairment in developing their LTS, including stationary, minor, mobile, and area sources. At a minimum, states must describe how each of the following seven factors listed below are taken into account in developing their LTS: (1) Emission reductions due to ongoing air pollution control programs, including measures to address RAVI; (2) measures to mitigate the impacts of construction activities; (3) emissions limitations and schedules for compliance to achieve the RPG; (4) source retirement and replacement schedules; (5) smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the state for these purposes; (6) enforceability of emissions limitations and control measures; and, (7) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the LTS. [40 CFR 51.308\(d\)\(3\)\(v\)](#).

#### *F. Coordination of the Regional Haze SIP and Reasonably Attributable Visibility Impairment*

As part of the RHR, EPA revised [40 CFR 51.306\(c\)](#) regarding the long-term strategy for RAVI to require that the RAVI plan must provide for a periodic review and SIP revision not less frequently than every three years until the date of submission of the state's first plan addressing regional haze visibility impairment, which was due December 17, 2007, in accordance with [40 CFR 51.308\(b\)](#) and [\(c\)](#). On or before this date, the state must revise its plan to provide for review and revision of a coordinated LTS for addressing RAVI and regional haze, and the state must submit the first such coordinated LTS with its first regional haze SIP. Future coordinated LTSs, and periodic progress reports evaluating progress towards RPGs, must be submitted consistent with the schedule for SIP submission and periodic progress reports set forth in [40 CFR 51.308\(f\)](#) and [51.308\(g\)](#), respectively. The periodic review of a state's LTS must report on both regional haze and RAVI impairment and must be submitted to EPA as a SIP revision.

#### *G. Monitoring Strategy*

Section 51.308(d)(4) of the RHR requires a monitoring strategy for measuring, characterizing, and reporting on regional haze visibility impairment that is representative of all mandatory Class I areas within the state. The strategy must be coordinated with the monitoring strategy required in [40 CFR 51.305](#) for RAVI. Compliance with this requirement may be met through "participation" in the Inter-agency Monitoring of Protected Visual ~~36455~~ Environments (IMPROVE) network, i.e., review and use of monitoring data from the network. The monitoring strategy is due with the first regional haze SIP, and it must be reviewed every five years. The monitoring strategy must also provide for additional monitoring sites if the IMPROVE network is not sufficient to determine whether RPGs will be met. The SIP must also provide for the following:

- Procedures for using monitoring data and other information in a state with mandatory Class I areas to determine the contribution of emissions from within the state to regional haze visibility impairment at Class I areas both within and outside the state;
- Procedures for using monitoring data and other information in a state with no mandatory Class I areas to determine the contribution of emissions from within the state to regional haze visibility impairment at Class I areas in other states;

- Reporting of all visibility monitoring data to the Administrator at least annually for each Class I area in the state, and where possible, in electronic format;
- Developing a statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any Class I area. The inventory must include emissions for a baseline year, emissions for the most recent year for which data are available, and estimates of future projected emissions. A state must also make a commitment to update the inventory periodically; and,
- Other elements, including reporting, recordkeeping, and other measures necessary to assess and report on visibility.

#### *H. SIP Revisions and Progress Reports*

The RHR requires control strategies to cover an initial implementation period through 2018, with a comprehensive reassessment and revision of those strategies, as appropriate, every ten years thereafter. Periodic SIP revisions must meet the core requirements of [section 51.308\(d\)](#) with the exception of BART. The requirement to evaluate sources for BART applies only to the first regional haze SIP. Facilities subject to BART must continue to comply with the BART provisions of [section 51.308\(e\)](#), as noted above. Periodic SIP revisions will assure that the statutory requirement of reasonable progress will continue to be met.

Each state also is required to submit a report to EPA every five years that evaluates progress toward achieving the RPG for each Class I area within the state and outside the state if affected by emissions from within the state. [40 CFR 51.308\(g\)](#). The first progress report is due five years from submittal of the initial regional haze SIP revision. At the same time a 5-year progress report is submitted, a state must determine the adequacy of its existing SIP to achieve the established goals for visibility improvement. [40 CFR 51.308\(h\)](#). The RHR contains more detailed requirements associated with these parts of the Rule.

#### *I. Coordination With Federal Land Managers*

The RHR requires that states consult with Federal Land Managers (FLMs) before adopting and submitting their SIPs. [40 CFR 51.308\(i\)](#). States must provide FLMs an opportunity for consultation, in person and at least sixty days prior to holding any public hearing on the SIP. This consultation must include the opportunity for the FLMs to discuss their assessment of impairment of visibility in any Class I area and to offer recommendations on the development of the RPGs and on the development and implementation of strategies to address visibility impairment. Furthermore, a state must include in its SIP a description of how it addressed any comments provided by the FLMs. Finally, a SIP must provide procedures for continuing consultation between the state and FLMs regarding the state's visibility protection program, including development and review of SIP revisions, five-year progress reports, and the implementation of other programs having the potential to contribute to impairment of visibility in Class I areas.

### IV. EPA's Analysis of Nevada's RH SIP

#### *A. Affected Class I Areas*

Nevada has one Class I area, the Jarbidge Wilderness Area (hereinafter referred to as Jarbidge), located within the Humboldt National Forest in the northeastern corner of the State. NDEP identified 24 other Class I areas [FN5] located outside the State that may be affected by its emissions. These other Class I areas are in Arizona (5), California (11), Idaho (2), Oregon (3) and Utah (3). In Arizona, the Class I areas are Grand Canyon National Park (NP), Sycamore Canyon Wilderness Area (WA), Pine Mountain WA, Mazatal WA, and Sierra Ancha WA. In California, they are Desolation WA, Dome Land WA, Hoover WA, Joshua Tree NP, Kaiser WA, Lassen Volcanic NP, Lava Beds WA, San Gabriel WA, San Geronio WA, Sequoia NP, and Yosemite NP. In Idaho, the areas are Craters of the Moon WA and Sawtooth WA. In Oregon, the areas are Crater Lake NP, Hells Canyon WA and Eagle Cap WA. In Utah, the areas are Bryce Canyon NP, Capitol Reef NP and Zion NP. EPA is proposing to find that NDEP has identified all affected Class I areas within and outside the State that are potentially affected by its emissions.

FN5 These Class I areas were identified using Particle Source Apportionment Tracking (PSAT) modeling results for sulfate and nitrate extinction. Tables 4-3 and 4-4 in the Nevada Regional Haze SIP identify the rank and percentage of the total modeled concentration due to SO—T22 emissions and NO—T2X emissions from sources in Nevada to the IMPROVE monitors representing Class I areas in the five adjacent states. Where a monitoring site is not located within a specific national park or wilderness area, the closest Class I area is listed.

#### *B. Visibility Conditions and Uniform Rate of Progress*

NDEP developed the visibility estimates in its RH SIP using air quality models and analytical tools provided by the WRAP. Based on EPA's review of the WRAP's technical analyses and products, we found that the models were used appropriately, and were consistent with EPA guidance in effect at the time of their use. The models used by the WRAP were state-of-the-science at the time the modeling was conducted, and model performance was adequate for the purposes that they were used.[FN6]

FN6 For our detailed review and discussion, please see “Technical Support Document for Technical Products Prepared by the Western Regional Air Partnership in support of Western Regional Haze Plans”, Final, February 2011 (WRAP TSD).

#### 1. Baseline and Natural Visibility Conditions

Baseline visibility conditions represent the degree of visibility impairment for the 20 percent least impaired days and 20 percent most impaired days for each calendar year from 2000 to 2004. Using monitoring data for 2000 through 2004, states are required to calculate the average degree of visibility impairment for each Class I area, based on the average of annual values over the five-year period.

NDEP calculated that on the 20 percent worst days at Jarbidge, the baseline visibility condition is 12.07 dv and the natural visibility condition is 7.87 dv. The natural visibility condition represents the long-term national goal of no man-made impairment. Since a state must ensure visibility improvement on the worst days, a baseline of 12.07 dv and an endpoint of 7.87 dv are used to measure progress. On the 20 percent best days, the baseline visibility condition is 2.56 dv and the natural visibil-



ity condition is 1.14 dv. The baseline visibility condition on best \*36456 days is a value that must be maintained in future years.

2. Uniform Rate of Progress Estimate

NDEP calculated the uniform rate of progress (URP) estimate for Jarbidge using the deciviews for the 2000-2004 baseline and natural background conditions on the 20 percent worst days. The URP is represented as a straight line between a Class I area's baseline value and natural conditions in 2064. 40 CFR Section 51.308(d)(1)(i)(B). This line is linear and assumes the same increment of progress every year for 60 years.

NDEP calculated the URP for Jarbidge in 2018 as 11.09 dv. (See Table 1). Given baseline conditions of 12.07 dv and an estimate of natural conditions of 7.87 dv, the overall visibility improvement necessary to reach the national goal is 4.20 dv. As the regional haze rule requires the URP to be calculated over a 60-year period from baseline to natural conditions (2004 to 2064), the URP is an average annual improvement of 0.07 dv (4.20 dv divided by 60 years). A uniform rate of progress in the first planning period (2004 to 2018) would result in an improvement of 0.98 dv (14 years times .07 dv). Therefore, the URP in 2018 for Jarbidge is 11.09 dv (12.07 dv minus 0.98 dv).

NDEP produced the following visibility estimates in deciviews for its one Class I area: baseline visibility conditions, uniform rate of progress estimate for 2018, and natural conditions estimate for 2064. We propose to find that these estimates are consistent with the requirements of the RHR, particularly the requirements at 40 CFR 51.308(d)(2)(i) and (iii).

TABLE 1—Visibility Calculations for Jarbidge

Class I area	[In deciviews]				
	2000-2004 Baseline Condi- tion (20% worst days)	2018  Uniform rate of progress (20% worst days)	2018  Reduction needed (20% worst days)	2064  Natural condition (20% worst days)	2000-2004 Baseline condition (20% best days)
Jarbidge Wilder- ness Area	12.07	11.09	0.98	7.87	2.56

FNSource: Table 2-1, page 2-7, Nevada RH SIP.

C. Nevada's Emissions Inventories

1. Emissions Inventories for 2002 and 2018

The RHR requires a statewide emissions inventory of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I area. 40 CFR 51.308(d)(4)(v). NDEP provides a statewide emissions inventory for 2002, representing the mid-point of the 2000-2004 baseline period, and a projected emissions inventory for 2018, the end of the first 10-year planning period. The 2018 inventory is based on visibility modeling conducted by the WRAP's Regional Modeling Center using the Community Multi-Scale Air Quality (CMAQ) model. The emissions inventories for 2002 and 2018 provide estimates of annual emissions for haze producing pollutants by source category as summarized by EPA in Tables 2 and 3 based on information in Chapter 3 of Nevada's RH SIP. The inventoried pollutants include sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), fine particulate matter under 2.5 microns (PM<sub>2.5</sub>), coarse particulate matter under 10 microns (PM<sub>10</sub>), ammonia (NH<sub>3</sub>), primary organic aerosol (POA),[FN7] and elemental carbon (EC). The emissions are divided into six source categories: point, area, mobile on-road, mobile off-road, natural and other. Natural sources include natural fire, biogenic and windblown dust. Other includes oil and gas, road dust, fugitive dust and anthropogenic fire. EPA is proposing to find that the emission inventories in Nevada's RH SIP were calculated using approved EPA methods.

FN7 Instead of using the category of Organic Carbon, Nevada used the POA primary organic aerosol that includes organic molecules or compounds that are directly emitted from the combustion of organic material. These organic compounds include organic carbon, hydrogen, oxygen as well as other organic atoms.

TABLE 2—Summary of 2000-2004 Average Baseline Emissions for Nevada

	[tons per year]							
	SO <sub>x</sub>	NO <sub>x</sub>	VOC	PM <sub>2.5</sub>	PM <sub>10</sub>	NH3	POA	EC
Point	50,947	59,873	2,215	2,158	4,093	339	256	13
Area	13,037	5,728	28,592	830	897	8,009	687	96
Mobile On-Road	510	41,089	36,257	0	245	2,030	314	235
Mobile Off-Road	1,672	32,565	18,094	0	0	22	572	1,354
Natural	2,784	23,103	811,745	11,844	99,122	1,684	22,501	4,674
Other	28	117	199	6,138	56,786	8	405	37
Total	68,978	162,475	897,102	20,970	161,143	12,092	24,734	6,409
Percent	(5)	(12)	(66)	(1.5)	(12)	(1)	(2)	(0.5)

TABLE 3—Summary of 2018 Emissions for Nevada

[Tons per year]							
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	SO <sub>X</sub>	NO <sub>X</sub>	VOC	PM <sub>2.5</sub>	PM <sub>10</sub>	NH <sub>3</sub>	POA	EC
Point	28,320	67,632	3,866	2,211	4,717	864	168	13
Area	14,280	7,418	53,014	1,150	1,012	8,535	776	115
Mobile On-Road	336	15,049	17,085	0	360	3,385	422	121
Mobile Off-Road	473	22,182	11,784	0	0	30	393	668
Natural	2,784	23,103	811,745	11,844	99,122	1,684	22,501	4,674
Other	30	114	213	8,928	83,076	5	561	47
Total	46,223	135,498	897,707	24,133	188,287	14,503	24,822	5,638
Percent	(3.5)	(10)	(67)	(2)	(14)	(1)	(2)	(0.5)

**\*36457 2. Analysis of Statewide Emissions by Pollutant**

NDEP's analysis of each pollutant in its emissions inventory, as summarized below, informs the relationship between the State's emissions and visibility impairment at Jarbidge as well as Class I areas outside the State.

- Sulfur Dioxide: SO<sub>2</sub> emissions are mostly from coal combustion at electrical generation facilities, but smaller amounts are from natural gas combustion, mobile sources and wood combustion. In Nevada, SO<sub>X</sub> emissions are predominantly from point sources (61 percent) and area sources (31 percent). Statewide emissions of SO<sub>2</sub> are projected to decrease 33 percent by 2018 as compared to the baseline due to planned BART controls on power plants and to reductions in mobile source emissions due to Federal diesel fuel standards. Comparing 2018 projections to the baseline, SO<sub>X</sub> emissions from point sources decrease 44 percent; area sources increase 10 percent; off-road mobile decrease 72 percent; and on-road mobile decrease 34 percent.

- Nitrogen Oxide: NO<sub>X</sub> is generated during any combustion process where nitrogen and oxygen from the atmosphere combine to form nitric oxide and to a lesser extent nitrogen dioxide. NO<sub>X</sub> emissions are predominantly from point sources (50 percent) and mobile sources (27 percent). Statewide emissions of NO<sub>X</sub> are expected to decrease by 17 percent by 2018, primarily due to an estimated 36,423 ton reduction in emissions from mobile sources due to new Federal vehicle emission standards. While NO<sub>X</sub> from point sources is projected to increase by 13 percent, the 2018 emissions inventory data does not include NO<sub>X</sub> reductions from the installation of BART controls in Nevada. The projected increase of 29 percent in area sources by 2018 is largely due to forecasted increases in activity from population growth.

- Volatile Organic Compounds: VOCs are gases emitted by a wide array of man-made products and sources, but in Nevada are mostly from living organisms (90 percent), a natural source categorized as a biogenic. VOCs impact visibility as emissions condense in the atmosphere to form an organic aerosol. Projected emissions of VOCs are not expected to change by 2018.

- PM<sub>2.5</sub> : PM fine emissions are composed of fine particulates that can remain suspended in the atmosphere for long periods of time and travel long distances. In Nevada, these emissions are generated

mostly by natural fires (49 percent) and area sources (37 percent) such as woodstoves. Statewide emissions of PM<sub>2.5</sub> are expected to increase by 15 percent by 2018. Most of the increase is associated with fugitive dust related to increases in population. Overall, PM<sub>2.5</sub> is a relatively small part of the visibility problem compared to other pollutants.

- **PM<sub>10</sub>** : PM coarse emissions are larger particles that travel shorter distances, but still contribute to regional visibility impairment. In Nevada, PM coarse emissions are predominately due to windblown dust (50 percent) and fugitive dust (36 percent). PM<sub>10</sub> emissions are expected to increase about 17 percent by 2018 due mostly to projected increases in road dust and fugitive dust linked to increases in population. Windblown dust is not projected to change by 2018, and remains the primary source category for these emissions.

- **Ammonia**: NH<sub>3</sub> emissions are from a variety of sources including wastewater treatment facilities, livestock operations, fertilizer applications and mobile sources. NH<sub>3</sub> emissions are predominantly from area sources (59 percent) and on-road mobile sources (23 percent). The 2018 projections indicate a net increase of 20 percent, mostly from on-road mobile sources due to projected increases in population, and by extension, vehicular traffic. While emission estimates for NH<sub>3</sub> are hard to quantify, these pollutants are important because they react with SO<sub>2</sub> and NO<sub>x</sub> to form ammonium sulfate (SO<sub>4</sub>) and ammonium nitrate (NO<sub>3</sub>) particles that are very effective in impairing visibility.

- **Primary Organic Aerosol**: POA includes organic molecules or compounds directly emitted from the combustion of organic material. Natural fire emissions (91 percent) dominate this category of statewide emissions.

- **Elemental Carbon**: EC particulates are emitted as a primary aerosol from fossil fuel combustion (vehicles, boilers, and other industrial processes), wild fires and other types of burning. In Nevada, the primary source of EC emissions is natural fire (83 percent) followed by off-road mobile (12 percent). Total EC emissions are projected to decrease 12 percent by 2018, mostly from mobile source emissions reductions resulting from Federal regulations.

### 3. Analysis of Natural Versus Anthropogenic Emissions

NDEP distinguishes between natural and anthropogenic sources of statewide emissions to indicate the type and level of emissions within the State that are amenable to controls. Table 4 provides a summary of anthropogenic and natural emissions based on the 2018 emissions inventory. The last column provides the percentage change in total emissions from the average emissions baseline.

Table 4—Natural v. Anthropogenic Sources Emissions Summary in 2018

Anthropogenic		Natural		Total in 2018	Change from baseline (%)
Tons/year	% of total	Tons/year	% of total		
[Tons per year]					

SO <sup>X</sup>	43,440	94	2,784	6	46,224	-33.0
NO <sup>X</sup>	112,394	83	23,102	17	135,496	-16.6
EC	964	17	4,674	83	5,638	-12.0
PM <sup>2.5</sup>	12,289	51	11,845	49	24,134	15.1
PM <sup>10</sup>	89,165	47	99,122	53	188,287	16.8
NH <sup>3</sup>	12,819	88	1,684	12	14,503	19.9
POA	2,321	9	22,501	91	24,822	0.4
VOC	85,962	10	811,745	90	897,707	0.1
Total	359,354	27	977,458	73	1,336,811	-1.3

FNSource: Table 3-6, page 3-14, Nevada RH SIP.

**\*36458** NDEP estimates that about 73 percent of its statewide emissions in 2018 are projected to come from natural sources (i.e., natural fires, windblown dust and biogenics). Natural sources contribute most of the emissions of EC, POA and VOC, and about half the emissions of PM<sub>2.5</sub> and PM<sub>10</sub>. While anthropogenic sources comprise only 27 percent of the projected inventory in 2018, these sources are important contributors of SO<sub>X</sub>, NO<sub>X</sub> and NH<sub>3</sub> as well as half of PM<sub>2.5</sub> and PM<sub>10</sub>.

*D. Sources of Visibility Impairment*

NDEP used baseline monitoring data presented in Table 5 to analyze the contribution of pollutants to light extinction (i.e., visibility impairment) on the worst days at Jarbidge. The pollutants causing the highest levels of light extinction are associated with the sources causing the most visibility impairment. The primary contributors to light extinction at Jarbidge are organic matter carbon (40 percent), coarse matter (22.3 percent), and sulfates (16.7 percent). Elevated levels of organic carbon and its seasonal pattern suggest these particles are from wildfires and biogenic sources. Two components of organic carbon, POA and VOCs, are each 90 percent from natural sources as listed above in the 2018 emissions inventory. While anthropogenic emissions contributing to organic carbon may include fossil fuels combustion and wood burning, these are not likely sources at Jarbidge, which is an isolated national park. Similarly, coarse matter, also known as PM<sub>10</sub>, is due mostly to naturally occurring events of windblown dust and fugitive dust based on the 2018 emissions inventory. Ammonia sulfate (SO<sub>4</sub>) is the third highest contributor to light extinction on the worst days (16.7 percent), and the one most closely associated with anthropogenic sources. Soil (PM<sub>2.5</sub>) and elemental carbon (EC) are mostly from natural fire, and ammonia nitrates (NO<sub>3</sub>) have only a minimal contribution to light extinction at Jarbidge. This analysis indicates that most of the light extinction at Jarbidge is due to natural sources.

FN8 While the baseline period is from 2000 to 2004, the monitoring data for 2000 at Jarbidge was invalid because it failed to meet EPA's data completeness criteria.

Table 5—Percentage of Light Extinction at Jarbidge

Year	[Baseline Period [FN8]]						
	SO <sub>4</sub>	NO <sub>3</sub>	OMC	EC	Soil	CM	Sea salt

20 Percent Worst Days							
2001	14.6	3.5	38.6	8.4	10.4	24.2	0.3
2002	11.5	5.6	48.4	6.5	10.9	17.1	0.0
2003	17.3	3.1	40.8	6.3	7.7	24.8	0.0
2004	23.6	5.7	32.4	5.0	9.7	23.0	0.7
Average	16.7	4.5	40.0	6.5	9.7	22.3	0.3

FNSource: Table 2-2, page 2-19, Nevada RH SIP.

### 1. Sources of Visibility Impairment at Jarbidge

NDEP relied on source apportionment modeling [FN9] conducted by the WRAP to determine the sources of sulfate and nitrate particles at Jarbidge since these pollutants are commonly associated with anthropogenic sources. The source apportionment modeling results for the WRAP region on the worst days at Jarbidge in 2018 indicate that the relative contribution of particulate sulfate concentrations is primarily from point sources and natural fires in Idaho, Oregon, Washington, Nevada and California (in descending order). If one expands the modeling domain to include all areas outside the WRAP region, the areas of greatest sulfate contribution are Outside Domain [FN10] \*36459 (43.8 percent), Idaho (10.3 percent), Oregon (7.2 percent), and Pacific Offshore (6.9 percent). Based on this analysis, Nevada contributes a relatively small amount (less than 5 percent) of sulfate at Jarbidge, which primarily comes from outside the United States.

FN9 The WRAP's Regional Modeling Center used the Particulate Matter Source Apportionment Technology (PSAT) algorithm in the Comprehensive Air Quality Model with Extensions (CAMx) to attribute particle species, particularly sulfate and nitrate, from specific source areas and source categories within the WRAP region. The PSAT algorithm applies nitrate-sulfate-ammonia chemistry to a system of tracers to track chemical transformation, transport and dissipation of emissions based on a 36 kilometer grid cell within a specified source area.

FN10 Outside Domain represents the background concentrations of pollutants that enter the modeling domain from sources outside the United States as well as portions of Canada and Mexico that are included in the modeling domain.

Source apportionment modeling indicates that the areas of greatest nitrate contribution in the WRAP region on the worst days at Jarbidge in 2018 is primarily from area and mobile sources in Idaho, and mobile sources in Utah and Nevada. Point sources in all three states are also significant contributors. Including all areas outside the WRAP region, Idaho is the largest source of nitrates on the worst days (30.3 percent), followed by Outside Domain (27.5 percent), Nevada (13.1 percent), and Utah (10.6 percent). This analysis indicates that Nevada contributes a small amount of nitrates at Jarbidge.

In summary, the analysis of light extinction indicates that organic carbon and coarse matter from natural sources account for most of the visibility impairment at Jarbidge. While sulfates are an important



contributor to light extinction, the vast majority of sulfate particles are from outside of Nevada.

## 2. Nevada's Contributions to Visibility Impairment in Class I Areas Outside of the State

NDEP identified the rank and percentage of sulfate extinction and nitrate extinction due to Nevada's emissions at IMPROVE monitors in each of 24 Class I areas in the five adjacent states.[FN11] The results for the best and worst days in 2002 and 2018 indicate that Nevada is responsible for a very small part of visibility impairment in Class I areas in Arizona, California, Idaho, Oregon and Utah. The highest concentration of sulfate extinction from Nevada's emissions in 2018 on the best days is 7.2 percent at Sawtooth Wilderness Area in Idaho, and on the worst days is 5.6 percent at Zion National Park in Utah. For nitrate extinction in 2018, Nevada's highest contribution on the best days is 12.4 percent at Joshua Tree National Park in California, and on the worst days is 20 percent at Desolation Wilderness in California. The next highest contribution of nitrate extinction is significantly lower, 8.8 percent at Bryce Canyon National Park in Utah. The level of Nevada's contributions to other Class I areas, mostly well below 10 percent, indicate that the vast majority of sulfates and nitrates in other Class I areas are from sources outside of Nevada. In conclusion, NDEP relied on source apportionment modeling to determine the relative contributions of haze causing pollutants in Class I areas inside and outside Nevada. We found these analyses to be valid and technically correct. We propose to find that the State has met the requirements of CFR 51.308(d)(3)(iii) and (iv).

FN11 See Table 4.3 Nevada's Sulfate Extinction Contribution to Class I Areas Outside of Nevada (page 4-15) and Table 4.4 Nevada's Nitrate Extinction Contribution to Class I Areas Outside of Nevada (page 4-17).

### *E. Determination of Best Available Retrofit Technology (BART)*

Nevada is required to evaluate the use of BART controls at 26 types of major stationary sources [FN12] built between 1962 and 1977 that have the potential to emit 250 tons or more of any pollutant and may reasonably be anticipated to cause or contribute to any impairment of visibility in any Class I area. CAA Section 169A(b)(2)(A) and 40 CFR 51.308(e). The state must submit a list of all BART-eligible sources within the state, and a determination of BART controls, including emissions limitations and schedules of compliance, for those sources subject to BART. Each source subject to BART is required to install and operate BART as expeditiously as practicable, but not later than five years after EPA approval of the state's regional haze SIP revision. CAA Section 169(g)(4) and 40 CFR 51.308(e)(1)(iv).

FN12 The set of "major stationary sources" potentially subject to BART is listed in CAA section 169A(g)(7).

#### 1. Sources Eligible for BART

The first phase of the BART evaluation is to identify all the BART-eligible sources within a state's boundaries. NDEP identified fourteen units at seven facilities as eligible for BART controls as listed below in Table 6. The seven facilities are Nevada Energy's Tracy (Mustang, NV), Fort Churchill (Yerington, NV), Reid Gardner (Moapa, NV) and Sunrise (Las Vegas, NV) electrical generating stations; Southern California Edison's Mohave generating station (Laughlin, NV); Nevada Cement Company's Portland cement plant (Fernley, NV); and Chemical Lime Company's Portland cement plant

(Apex, NV). Mustang, Yerington, Moapa and Fernley are in eastern Nevada. Las Vegas, Laughlin and Apex are in southern Nevada. A map locating BART sources in relation to Class I areas is provided as Figure 1, page 5-5, in Nevada's RH SIP.

Table 6—Sources Eligible for BART in Nevada

Source (location)	Unit	Source category	Date  in operation	Facility potential to emit  (tons per year)		
				NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10</sub>
Tracy (Mustang)	Boiler 1	Electric Generating Station	1963	1,167	21	125
	Boiler 2		1965			
	Boiler 3		1974			
Fort Churchill (Yerington)	Boiler 1	Electric Generating Station	1968	2,221	9	41
	Boiler 2		1971			
Reid Gardner (Moapa)	Boiler 1	Electric Generating Station	1965	7,045	1,020	1,343
	Boiler 2		1968			
	Boiler 3		1976			
Sunrise (Las Vegas)	Boiler 1	Electric Generating Station	1964	851	1	13
Mohave (Laughlin)	Boiler 1	Electric Generating Station	1969	20,267	40,347	1,958
	Boiler 2		1969			
Nevada Cement Company (Fernley)	Kiln 1	Portland Cement Plant	1963	2,065	96	80
	Kiln 2		1967-68			
Chemical Lime Company (Apex)	Kiln 3	Portland Cement Plant	1968	1,121	178	241

FNSource: Table 5-1, page 5-3, Nevada RH SIP.

**\*36460 2. Sources Subject to BART**

The second phase of the BART determination process is to identify those BART-eligible sources that one may reasonably anticipate to cause or contribute to visibility impairment at any Class I area.



These subject-to-BART sources are required to analyze what control measures, if any, constitute BART for the applicable SO<sub>2</sub>, NO<sub>x</sub> and PM<sub>10</sub> emissions. A state may exempt a BART-eligible source from further BART review if the source is not reasonably anticipated to cause or contribute to any visibility impairment at any Class I area. As described in EPA's BART Guidelines,[FN13] a state may chose to use dispersion modeling to estimate a source's contribution to visibility impairment, an approach which requires the State to establish a threshold for contribution. Nevada established a 0.5 deciview threshold for exempting BART-eligible sources based on the results of dispersion modeling.[FN14]

FN13 EPA's [Guidelines for BART Determinations under the Regional Haze Rule](#) are at 40 CFR Part 51 Appendix Y or 70 FR 39104 (July 6, 2005). For information on setting the contribution threshold refer to 70 FR 39161 (July 6, 2005).

FN14 WRAP's RMC used the CALPUFF modeling system to assess whether Nevada's eligible sources were subject to or exempt from BART by estimating impacts from a single source on each Class I area within 300 km of any BART-eligible facility. The highest modeled impact in the fourth column is the maximum annual 98th percentile delta deciview (8th highest value) of the three years analyzed.

NDEP determined that four of the seven eligible facilities are subject to BART since these facilities contribute to visibility impairment higher than 0.5 deciviews in one or more Class I areas. Information on the four subject-to-BART facilities is listed below in Table 7.

Table 7—Sources Subject to BART in Nevada

[Based on data from 2001-2003]

Facility	Class I areas within 300 km	Distance to class I area (km)	Highest impact on class I area	Days impact exceeds 0.5 dv
Tracy	Desolation	81	1.20	47
	Mokelumne	101	0.88	32
	Hoover	142	0.52	11
	Yosemite	153	0.50	11
	Caribou	170	1.03	48
	Lassen Volcanic	175	0.94	44
	South Warner	189	0.99	62
	Lava Beds	286	0.74	25
Fort Churchill	Mokelumne	78	1.24	69
	Desolation	85	1.25	72

	Hoover	99	1.00	32
	Emigrant	100	0.68	25
	Yosemite	112	1.00	29
	Ansel Adams	132	0.70	28
	John Muir	169	0.56	24
	Caribou	226	0.77	34
	Lassen Volcanic	231	0.77	33
	South Warner	245	0.72	62
	Thousand Lakes	265	0.60	21
Reid Gardner	Grand Canyon	85	1.72	60
	Zion	148	0.83	38
	Joshua Tree	292	0.88	48
Mohave	Grand Canyon	110	4.61	498
	Joshua Tree	137	4.58	248
	Sycamore Canyon	223	1.51	111
	San Gorgonio	225	1.44	75
	San Jacinto	234	1.62	74
	Zion	262	2.58	270
	Pine Mountain	265	1.21	49
	Dome Land	268	1.97	72
	Mazatal	279	1.19 45	
	Aqua Tibia	286	1.15	54
	Cucamonga	287	1.38	51

FNSource: Table 5-2, page 5-6 Nevada RH SIP.

**\*36461** Nevada determined that three BART-eligible facilities are not required to evaluate control options because these facilities modeled below the visibility impairment threshold of 0.5 deciviews based on the 98th percentile deciview. These facilities are the Sunrise Generating Station, the Nevada Cement Company, and the Chemical Lime Company listed below in Table 8. The fourth BART-eligible facility, Mohave Generating Station, has ceased operating.[FN15] A summary of the WRAP's BART exemption modeling for these facilities is available at <http://ndep.nv.gov/baqp/planmodeling/rhaze.html>.

FN15 The Mohave Generating Station has ceased all operations related to the generation of electricity from burning coal. NDEP approved Southern California Edison's request to terminate their Air Quality Operating Permit (No. AP4911-0774, FIN A0013) on April 9, 2010.

Table 8—Sources Exempt From BART in Nevada

Facility	Class I areas within	Distance to class I area	Highest impact on	Days impact exceeds 0.5
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	300 km	(km)	class I area	dv
Sunrise Generating Station	Grand Canyon	95	0.20	1
	Zion	207	0.11	0
	Joshua Tree	228	0.16	0
	Dome Land	237	0.08	0
	San Gorgonio	271	0.08	0
	John Muir	282	0.06	0
	Bryce Canyon	284	0.04	0
	Sequoia	288	0.04	0
	San Jacinto	290	0.06	0
	Sycamore Canyon	290	0.03	0
Nevada Cement Company	Desolation	101	0.27	3
	Mokelumne	115	0.31	3
	Emigrant	148	0.16	0
	Hoover	150	0.22	0
	Yosemite	161	0.22	0
	Caribou	185	0.48	6
	Ansel Adams	186	0.18	0
	Lassen Volcanic	191	0.46	6
	South Warner	224	0.49	7
	John Muir	224	0.14	0
	Thousand Lakes	254	0.26	4
	Kaiser	267	0.08	0
	Kings Canyon	294	0.11	0
	Lava Beds	294	0.22	0
Chemical Lime Company	Grand Canyon	89	0.05	0
	Zion	185	0.03	0
	Joshua Tree	254	0.04	0
	Dome Land	256	0.02	0
	Bryce Canyon	263	0.01	0
	John Muir	290	0.01	0
	Sycamore	292	0.01	0
	Sequoia	296	0.01	0
San Gorgonio	297	0.02	0	

FNSource: Table 5-3, page 5-7, Nevada RH SIP.

NDEP based its contribution threshold on four factors. First, 0.5 deciviews equates to the five percent extinction threshold for new sources under the Prevention of Significant Deterioration and New Source Review rules. Second, this value is consistent with the threshold selected by all other states in the West. Third, it represents the limit of perceptible change. Fourth, there was no clear rationale or justification for selecting a lower level. This explanation, however, is inadequate for adopting a 0.5 dv threshold to determine whether a BART source may \*36462 be reasonably anticipated to cause or contribute to any visibility impairment in a Class I area. Based on EPA's review of the BART-eligible sources, however, EPA is proposing to find that a 0.5 dv threshold is appropriate, given the specific facts in Nevada.

In the BART Guidelines, EPA recommended that States "consider the number of BART sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts. In general, a larger number of BART sources causing impacts in a Class I area may warrant a lower contribution threshold."70 FR 39104, 39161 July 6, 2005. Since four of the sources are subject to BART, EPA focused its review on the modeled impacts of the three BART-exempt sources as listed in the fourth column of Table 8. Of those sources, Nevada Cement Company has estimated impacts of close to 0.5 dv at three of the fourteen potentially impacted Class I areas. Nevada Cement's highest modeled impacts are at Caribou WA (0.48 dv), Lassen Volcanic NP (0.46 dv) and South Warner WA (0.49 dv). Of the BART-eligible sources, only Tracy and Fort Churchill also impact visibility in these three Class I areas. NDEP found both Tracy and Fort Churchill to be subject to BART based on its threshold of 0.5 dv. Thus, only a small number of BART-eligible sources, two of which were found to be subject to BART, are impacting Caribou WA, Lassen Volcanic NP, and South Warner WA above or close to the threshold level of 0.5 dv. In comparison to Nevada Cement, Sunrise's highest impact is 0.20 dv and Chemical Lime's highest impact is 0.05, both on Grand Canyon NP. Of the other BART-subject sources impacting visibility at the Grand Canyon, Mohave has closed and Reid Gardner is subject to BART controls. Given the relatively limited impact on visibility from the three exempted sources, NDEP could have reasonably concluded that a 0.5 dv threshold was appropriate for identifying those BART-eligible sources with significant impacts on visibility in Class I areas. Based on our analysis, EPA is proposing to approve the 0.5 dv threshold adopted by Nevada in its Regional Haze SIP.

### 3. BART Determinations

NDEP completed BART determinations and set emission limits for the eligible units at the Tracy, Churchill, and Reid Gardner electrical generating stations in conformance with EPA's BART Guidelines. Control technologies or measures identified by NDEP as BART are required to be installed and operating on units at these three facilities by January 1, 2015, or no later than five years after approval of Nevada's RH SIP, whichever occurs sooner. The designated BART controls, emission limits, and compliance deadlines are enforceable through Nevada State regulation R190-08, adopted on April 23, 2009. Nevada Energy's BART reports and NDEP's BART determinations are available at <http://ndep.nv.gov/baqp/planmodeling/rhaze.html>. Nevada Energy is the owner and operator of Tracy, Fort Churchill and Reid Gardner. NDEP made its BART determinations based on the BART reports from Nevada Energy, additional economic analysis, and baseline emission scenarios for NO<sub>X</sub> and SO<sub>2</sub> using emissions data from EPA's Acid Rain Program. Please refer to Chapter 5 of

the Nevada RH SIP for further information.

a. Tracy Generating Station

Background: Tracy is a natural gas-fueled power plant complex with 12 generating units located about 17 miles east of Reno, Nevada. The plant consists of three BART-eligible steam boiler units completed in 1963, 1965 and 1974. These units have a generating capacity of about 251 megawatts (MW), of which unit 1 is 55 MW, unit 2 is 83 MW and unit 3 is 113 MW. The Title V permit allows burning pipeline quality natural gas (PNG) or blended residual fuel oil (No. 2 and No. 6 and non-PCB mineral oil). Nevada Energy, the owner, completed a BART analysis for Tracy that investigated technology alternatives and potential reductions in NO<sub>x</sub>, SO<sub>2</sub> and PM<sub>10</sub> emissions rates in a report dated October 2008. NDEP partially concurred with Nevada Energy's analysis of BART controls, but disagreed that installation of only low NO<sub>x</sub> burners (LNB) for control of NO<sub>x</sub> emissions at units 2 and 3 was BART. NDEP set lower NO<sub>x</sub> emission limits at all three units than those requested by Nevada Energy. NDEP reviewed Nevada Energy's five-factor analysis for each unit at Tracy and determined that installation of LNB with flue gas recirculation (FGR) for units 1 and 2, as well as LNB with selective non-catalytic reduction (SNCR) for unit 3, meet the BART criteria. Associated first year costs range from \$2,383 to \$3,050/ton of NO<sub>x</sub> removed. NDEP considered these values to be cost effective. Based on a review of Nevada Energy's economic analysis, NDEP concluded that the dollars per ton of NO<sub>x</sub> removed for units 1 and 2 increased significantly for LNB with SNCR, rotating opposed fire air (ROFA) with Rotamix,[FN16] and selective catalytic reduction (SCR), with only slight improvements in visibility. For unit 2, although LNB with SNCR appears cost effective, that technology does not reduce the modeled average number of days above 0.5 deciviews at the Desolation Wilderness Area or Yosemite National Park. For unit 3, although the first year cost effectiveness for ROFA with Rotamix appears reasonable, the incremental cost effectiveness of ROFA with Rotamix is much higher than LNB with SNCR. It also does not reduce the modeled average number of days above 0.5 deciviews at Desolation Wilderness or Yosemite. Support documents for Nevada's BART determinations are at <http://ndep.nv.gov/baqp/planmodeling/rhaze.html>.

FN16 Rotamix is a technology for adding SNCR using ammonia or a urea-based reagent.

Regarding BART for SO<sub>2</sub>, NDEP agreed with Nevada Energy's analysis to require Pipeline Quality Natural Gas (PNG) or low sulfur No. 2 fuel oil with an emission limit of 0.05 lb/MMBtu over a 24-hour averaging time for all three units. NDEP also agreed with Nevada Energy that BART for PM<sub>10</sub> for all three units is PNG or low sulfur No. 2 fuel oil with an emission limit of 0.03 lb/MMBtu over a 3-hour average.

BART Controls: For units 1 and 2 at Tracy, EPA proposes to agree with NDEP's analysis that BART for NO<sub>x</sub> is LNB with FGR and emission limits of 0.15 lb/MMBtu and 0.12 lb/MMBtu, respectively, based on a 12-month rolling average. For unit 3, EPA proposes to agree with NDEP's analysis that BART for NO<sub>x</sub> is LNB with SNCR and an emission limit of 0.19 lb/MMBtu, based on a 12-month rolling average. EPA also proposes to approve NDEP's conclusion to eliminate the additional control options that Nevada Energy analyzed based on its finding those options had significantly higher incremental cost effectiveness and/or would not reduce the frequency of impaired visibility at Class I areas. EPA proposes to agree that for all units at Tracy, BART for SO<sub>2</sub> is PNG and/or No. 2 fuel oil

with an emission limit of 0.05 lb/MMBtu, based on a 24-hour averaging period. For PM<sub>10</sub>, EPA proposes to agree with NDEP's analysis that BART is also PNG and/or No. 2 fuel oil, but with an emission limit of 0.03 lb/MMBtu, based on a 3-hour averaging period for all units.

Visibility Improvement: Based on visibility modeling, emissions reductions due to the installation of BART controls at Tracy result in 82 less days every year with visibility impacts greater than 0.5 dv at fifteen Class 1 areas within 300 km of the facility. NDEP anticipates even greater visibility improvement from BART than modeled \*36463 because the actual NO<sub>x</sub> emission limits for BART (0.12-0.19 lb/MMBtu) are much lower than the emission rates (0.40 lb/MMBtu) used to model visibility improvement due to BART implementation.

#### b. Fort Churchill Generating Station

Background: Fort Churchill is a natural gas-fired power plant located in Yerington, Nevada, that uses steam boilers to drive turbine generators. The plant consists of two units, completed in 1968 and 1971, that are BART-eligible with a generating capacity of 113 megawatts each. The fuel currently used in units 1 and 2 is PNG or blended fuel oil (No. 6 residual oil and No. 2 distillate fuel oil). In its BART analysis, Nevada Energy investigated technology alternatives and identified potential reductions in NO<sub>x</sub>, SO<sub>2</sub> and PM<sub>10</sub> emissions rates. NDEP partially concurred with Nevada Energy's analysis of BART controls, but disagreed that installation of only LNB for control of NO<sub>x</sub> emissions was BART, and disagreed with the associated NO<sub>x</sub> emission limits. For unit 1, LNB with SNCR and ROFA with Rotamix appear cost effective in the first year costs, but have significantly higher incremental cost effectiveness than LNB with FGR. In addition, LNB with SNCR and ROFA with Rotamix do not show fewer modeled average number of days above 0.5 deciviews at Mokelumne Wilderness Area and Yosemite. For unit 2, LNB with SNCR and ROFA with Rotamix appear to be cost effective in the first year, but have significantly higher incremental cost effectiveness than LNB with FGR. Nevada Energy's modeling analysis shows that LNB with SNCR does not result in any fewer averaged number of days above 0.5 deciviews at Mokelumne and only one fewer averaged days above 0.5 delta deciviews at Yosemite.

Regarding BART for SO<sub>2</sub>, NDEP agreed with Nevada Energy's analysis to require PNG or low sulfur No. 2 fuel oil with an emission limit of 0.05 lb/MMBtu over a 24-hour averaging time for all three units. NDEP also agreed with Nevada Energy that BART for PM<sub>10</sub> for all three units is PNG or low sulfur No. 2 fuel oil with an emission limit of 0.03 lb/MMBtu over a 3-hour average.

BART Controls: For units 1 and 2 at Fort Churchill, EPA is proposing to approve NDEP's determination that BART for NO<sub>x</sub> is LNB with FGR and emission limits of 0.20 lb/MMBtu and 0.16 lb/MMBtu, respectively, based on a 12-month rolling average. EPA proposes to approve NDEP's decision to eliminate the additional control options that Nevada Energy analyzed based on its finding those options had significantly higher incremental cost effectiveness or would not reduce the frequency of impaired visibility at Class I areas.

For SO<sub>2</sub>, EPA proposes to agree with NDEP's analysis that BART is PNG and/or No. 2 fuel oil for all units with an emission limit of 0.05 lb/MMBtu, based on a 24-hour averaging period. For PM<sub>10</sub>, EPA proposes to find that BART is also PNG and/or No. 2 fuel oil for all units, with an emission limit of 0.03 lb/MMBtu, based on a 3-hour averaging period.



Visibility Improvement: Based on visibility modeling, emission reductions due to the installation of BART controls at Fort Churchill result in 227 less days every year with visibility impacts greater than 0.5 dv at fourteen Class 1 areas within 300 km of the facility. NDEP anticipates even greater visibility improvement from BART than modeled because the actual NO<sub>X</sub> emission limits for BART (0.12 and 0.16 lb/MMBtu) are much less than the emission rates (0.40 lb/MMBtu) used to model visibility improvement due to BART implementation. For Fort Churchill, the total annual NO<sub>X</sub> emissions post-BART controls (963 tpy) are 53 percent of those modeled (2,181 tpy).

### c. Reid Gardner Generating Station

Background: Reid Gardner is a coal-fueled, steam-electric generating plant with four operating units producing a total of 557 MW. Three of the units, built in 1965, 1968 and 1976 are BART-eligible. Each of these units produces about 100 MW with steam boilers that drive turbine-generators. The units are equipped with LNB and over-fire air (OFA) system, mechanical collectors for particulate control, wet scrubbers that use soda ash for SO<sub>2</sub> removal, as well as recently installed baghouses. NDEP's review of Nevada Energy's BART report for Reid Gardner resulted in NDEP agreeing only with the control technologies proposed as BART for SO<sub>2</sub> and PM<sub>10</sub>. For the three BART units, NDEP concurs that BART for SO<sub>2</sub> is the existing wet soda ash FGD and BART for PM<sub>10</sub> is the recently installed fabric filter baghouse. NDEP disagreed with Nevada Energy's conclusion on BART for NO<sub>X</sub>, and on the proposed emission limits for NO<sub>X</sub>, SO<sub>2</sub> and PM<sub>10</sub>. NDEP later responded to comments from EPA, FLMs and other non-governmental organizations regarding its proposed BART SO<sub>2</sub> emission limit for Reid Gardner. After further evaluation of emission data that reflected compliance with existing controls at the facility, NDEP lowered the SO<sub>2</sub> emissions limit at Reid Gardner from 0.25 lb/MMBtu to 0.15 lb/MMBtu on all three units. The revised BART regulation was adopted by the Nevada Environmental Commission on February 11, 2009 and submitted to EPA as a revision to NDEP's RH SIP on February 18, 2010.

BART Controls: NDEP determined that for all units at Reid Gardner, BART controls for NO<sub>X</sub> are rotating opposed fire air (ROFA) with Rotamix and emission limits of 0.20 lb/MMBtu for units 1 and 2, and 0.28 lb/MMBtu for unit 3, based on a 12-month rolling average. To evaluate the cost of compliance, NDEP analyzed the cost per year of the various control technologies compared to the tons of NO<sub>X</sub> removed by each. NDEP determined that the additional cost per year for SCR technologies did not appear cost effective compared to the additional NO<sub>X</sub> reduction for each unit. NDEP also evaluated the second BART factor, energy and non-air quality environmental impacts, for requiring SCR or SNCR rather than ROFA with Rotamix. NDEP determined that there were negative non-air quality environmental impacts with SCR and SNCR, including the salability and ultimate disposal of fly ash due to higher ammonia levels. Moreover, NDEP found that SCR and SNCR increased the potential for creating a visible stack plume. NDEP also was concerned about the transportation of ammonia to Reid Gardner increasing the likelihood of an accidental release. EPA is proposing to approve these BART determinations for NO<sub>X</sub> based on NDEP's approach.

EPA proposes to agree that BART controls for SO<sub>2</sub> are wet soda ash flue gas desulfurization on all units with an emission limit of 0.15 lb/MMBtu, based on a 24-hour averaging period. We also propose to agree that for PM<sub>10</sub>, BART controls are fabric filter baghouses on all units with an emission limit of 0.015 lb/MMBtu, based on 3-hour averaging period.

Visibility Improvement: Based on visibility modeling, emission reductions due to the installation of BART controls at Reid Gardner result in five less days with visibility impacts greater than 0.5 dv at five Class I areas within 300 kilometers of the facility. NDEP anticipates even greater visibility improvement from BART than modeled since the total annual emissions for NO<sub>X</sub>, SO<sub>2</sub> and PM<sub>10</sub> are about half of the emissions modeled due to more stringent emission limits.

#### d. Mohave Generating Station

Background: Mohave was a 1,580 MW coal-fired power plant with two units that ceased operations at the end of December 2005. Located about 70 miles southwest of Grand Canyon National Park, Mohave was one of the single, largest sources of SO<sub>2</sub> in the West. The \*36464 facility closed after failing to meet emission limitations for SO<sub>2</sub> and emission controls for NO<sub>X</sub> as required by a consent decree between the facility's owners and environmental organization.[FN17] However, the owners did not officially decide to decommission the facility until June 10, 2009. Since Mohave was subject to BART and its final status was unknown at the time Nevada developed its SIP, the WRAP included Mohave in its emission inventory and NDEP prepared a BART determination for SO<sub>2</sub>, NO<sub>X</sub> and PM<sub>10</sub> that was required prior to the facility restarting operations. NDEP estimates that BART controls, based on fuel switching from coal to natural gas, would have resulted in an additional reduction of 8,701 tons per year of SO<sub>2</sub> (75 percent reduction) and 19,595 tons per year of NO<sub>X</sub> (98 percent reduction) compared to the emission limits and control requirements in the consent decree.

FN17 In a Consent Decree dated December 21, 1999, the owners of Mohave power plant agreed with the Grand Canyon Trust, Sierra Club, and National Parks and Conservation Association to limit opacity to 20 percent by implementing SO—T22 emission limitations and NO—T2X control requirements on units 1 and 2 by December 31, 2005. The consent decree had no emission limitations for either NO—T2X or PM. EPA promulgated a final rule on February 8, 2002, to include the consent decree requirements in Nevada's Federal Implementation Plan for Visibility at 40 CFR 52.1488. Nevada included the requirements of the Visibility FIP in Mohave's Title V operating permit.

BART Controls: Since Mohave is permanently closed, with emissions of zero, EPA is satisfied with the State's approach to determining BART.

Visibility Improvement: NDEP relies on emission reductions required by the consent decree as well as their BART determination to characterize visibility improvement at eleven Class I areas located within 300 km of Mohave. While this method understates the visibility benefit resulting from the plant's closure, modeling indicates these emission reductions would result in 538 less days every year at the eleven Class I areas with visibility impairment of greater than 0.5 dv. With Mohave's permanent shutdown, the annual emission reductions are equal to the WRAP's baseline emissions for the plant: 55,047 tons of SO<sub>2</sub> ; 31,344 tons of NO<sub>X</sub> ; and 3,417 tons of PM<sub>10</sub> . The closure of the Mohave generating station provided the largest reduction in haze-causing pollutants from a subject-to-BART source in Nevada, and should result in greater visibility improvement than modeling has projected.



#### 4. EPA's Assessment

EPA is proposing to approve NDEP's analyses and conclusions for the BART emissions units at Tracy, Fort Churchill and Reid Gardner generating stations. Based on our review, EPA is proposing to find that the BART determinations were conducted in a manner consistent with the RHR BART requirements in [40 CFR 51.308\(e\)](#), the EPA's BART Guidelines, and EPA's Air Pollution Control Cost Manual (<http://www.epa.gov/ttnecas1/costmodels.html>). We believe the outcome of Nevada's BART determinations reflects a reasonable consideration of the relevant factors.

##### *F. Determination of Reasonable Progress Goal*

The RHR requires states to establish a goal, expressed in deciviews, for each Class I area within the state that provides for reasonable progress toward achieving natural visibility conditions by 2064. The RPG must provide for an improvement in visibility for the most impaired days, and ensure no degradation in visibility for the least impaired days over the period of the SIP.

##### 1. Visibility Projections for 2018

NDEP relied on the Community Multi-Scale Air Quality (CMAQ) model used by the WRAP's RMC to project visibility conditions at all western Class I areas in 2018. For Jarbidge, the model predicted 11.05 dv on the worst days and 2.50 dv on the best days in 2018. The visibility projection compares favorably to the URP estimate in 2018 of 11.09 dv as displayed in Table 9. The visibility projection was based on estimates of emissions reductions from all existing and known controls resulting from Federal and state CAA programs as of March 2007. This data formed the basis for the State's RH SIP submitted to EPA in November 2009.[FN18] EPA addressed the uncertainties associated with modeled projections by making the RPG an analytic tool for the purpose of evaluating progress, not an enforceable standard. [51.308\(d\)\(1\)\(v\)](#) and [64 FR 35733](#).

FN18 In April 2011, the WRAP issued a draft report regarding an error in its visibility projections for about 15 Class I areas in the West, including Jarbidge. The draft report indicated that, as a result of the error, the projected visibility at Jarbidge in 2018 is 11.8 dv instead of 11.1 dv (rounded up from 11.05 dv). It is EPA's view that at this point in the SIP process, the discovery of a potential error in the visibility projections for 2018 does not call for a revision of the Nevada SIP. Because of the significant resources needed to model projected visibility impacts and the time needed for Nevada to repeat the SIP review and approval process, such action is not appropriate. Moreover, any correction to the modeling results at this time should be based on an update to all the data used in 2007 to model visibility projections. For example, the visibility modeling did not include emission reductions from more recent BART control decisions in Nevada and neighboring states, and did include emissions from proposed facilities in Nevada that now are not expected to be built. EPA is satisfied that the progress report and adequacy determination due in November 2014, see [40 CFR 51.308\(g\)](#) and [\(h\)](#), will provide an opportunity to determine whether Nevada's SIP is sufficient to ensure that the State is making reasonable pro-

gress.

Table 9—Summary of Model Predicted Progress Toward 2018 Uniform Rate of Progress at Jarbidge

Class I area	[In deciviews]				
	2000-04	20% worst days		20% best days	
Baseline	2000-04	2018	2018	2000-04	2018
worst days					
		URP estimate			
		\$Modeling result			
				Baseline best days	
					Modeling result
Jarbidge	12.07	11.09	11.05	2.56	2.50

FNSource: Table 6-3, page 6-15, Nevada RH SIP.

2. Establishing the Reasonable Progress Goal

In setting its RPG of 11.05 dv for Jarbidge, NDEP considered a number of different factors as described on pages 6-16 and 6-17 of the Nevada RH SIP. These factors included: (1) The URP of 11.09 in 2018; (2) Reductions in Nevada's anthropogenic emissions by 2018 estimated at 44 percent for SO<sub>x</sub> and 33 percent for NO<sub>x</sub>; (3) Reductions in anthropogenic emissions consistent with Nevada's share of emissions reductions at Class I areas in other states; (4) Major reductions in mobile source emissions; (5) Major contributions to visibility impairment from offshore marine shipping and international emissions; (6) Significant contributions from natural sources of visibility impairment; and (7) Consideration of the five BART factors. Based on its analysis of reasonable progress, Nevada concluded that additional control measures, beyond those documented for BART, are unreasonable at this time.

EPA is proposing to agree with the State's analysis and conclusion that it is reasonable not to seek additional controls on other sources within the State at this time. Importantly, the RPG for Jarbidge meets the URP in 2018, committing the State to make reasonable progress in the first planning period toward attaining natural background conditions. Nevada has demonstrated that the RPG provides for visibility improvement on the worst days and no degradation of visibility on the best days compared to the baseline average (see Table 9). The RPG also represents more visibility improvement than would result from implementation of other CAA requirements since emissions reductions from existing and known controls were included in the visibility modeling. EPA finds that the State's decision not to seek additional control measures is supported by the attributes of regional haze at Jarbidge as

well as the expected reductions in statewide emissions of SO<sub>x</sub> and NO<sub>x</sub> and BART controls on three facilities. The WRAP's regional analysis indicates that haze at Jarbidge is mostly from natural sources like wildfires, and most of the anthropogenic sources contributing to that haze are outside the State. Based upon everything NDEP considered in its SIP, EPA is proposing to approve Nevada's demonstration that its RPG provides for reasonable progress in the first planning period as required in CFR 51.308(d)(1)(i), (ii) and (vi).

### 3. Interstate Consultation

Nevada consulted with thirteen other western states through numerous WRAP meetings, workshops and conference calls that began in 1996. Through the WRAP's consultative process, Nevada resolved technical tasks and policy decisions related to monitoring, emissions, modeling, BART application, control measures, and other issues. There were no comments from other states on Nevada's RH SIP, implying that the consultative process was successful in resolving any potential conflicts that would undermine regional planning. EPA confirms that Nevada consulted with other states on its RPG through the WRAP process, and that there is no evidence of any disagreement on the RPG for Jarbidge.

#### *G. Long-Term Strategy*

EPA is proposing to find that NDEP adequately addressed the RHR requirements in developing its LTS. We believe that the LTS provides sufficient documentation to ensure that Nevada will meet its emission reduction obligations for all Class I areas it affects in the first planning period. Nevada relied on monitoring, emission inventories and modeling information from the WRAP as the technical basis for its LTS. Coordination and consultation occurred with other states through the WRAP, in which all western states participated in developing the technical analysis upon which their SIPs are based. This included identifying all anthropogenic sources of visibility impairment including major and minor stationary sources, mobile sources, and area sources. The anticipated net effect on visibility over the first planning period due to changes in point, area and mobile source emissions is a reduction in regional haze at Jarbidge. Nevada also analyzed its contribution to visibility impairment at Class I areas in other states to ensure it is meeting its share of emission reductions obligations.[FN19] In particular, NDEP considered the following factors in developing its long-term strategy.

FN19 See Summary of Visibility Impairment at Nearby Class I Areas and Nevada's Emissions Reductions, Table 7-6, page 7-21.

#### 1. BART Controls

The installation and operation of BART controls is an integral part of the State's long-term strategy to achieve the RPG at Jarbidge, and to reduce Nevada's share of emissions affecting Class I areas in neighboring states. As described in this notice and in more detail in Nevada's RH SIP, NDEP is requiring three of Nevada Energy's facilities (Tracy, Fort Churchill and Reid Gardner) to install and operate BART controls as expeditiously as practicable, but no later than January 1, 2015 or five years after EPA approval of the SIP, whichever occurs first. Each source is required to establish procedures to ensure that the control equipment is properly operated and maintained. Nevada's BART emissions limitations and schedules for compliance are codified in a revision to the Nevada Administrative Code (NAC) adopted on February 11, 2009.[FN20] The regulations identify the emission limits and

control technologies required as BART on the Tracy, Fort Churchill and Reid Gardner facilities. NDEP also will incorporate BART control limits into Nevada Energy's Title V operating permits for these facilities at the time of renewal. Regarding the Mohave generating station, Nevada terminated its Air Quality Operating Permit No. AP4911-0774 as documented in a letter to Southern California Edison on April 9, 2010.

FN20 See Nevada RH SIP Appendix A for Nevada BART regulations.

## 2. Ongoing Air Pollution Control Programs

Nevada continues to achieve significant reductions in  $\text{SO}_x$  and  $\text{NO}_x$  from mobile sources through the implementation of Federal, State and local programs. Federal and State mobile source regulations are the primary air quality programs expected to reduce visibility impairment in the first planning period. These programs include limitations and schedules of compliance identified in rules and regulations that are unique to each program. For example, EPA has mandated new standards for on-road (highway) diesel fuel, known as ultra-low sulfur diesel (ULSD) beginning in 2006. This regulation dropped the sulfur content of diesel fuel from 500 parts per million (ppm) to 15 ppm. ULSD fuel enables the use of cleaner technology diesel engines and vehicles with advanced emissions control devices, resulting in significantly lower emissions. Diesel fuel intended for locomotive, marine and non-road (farming and construction) engines and equipment is required to meet the low sulfur diesel fuel maximum specification of 500 ppm sulfur in 2007, previously 5000 ppm. The ULSD fuel standard of 15 ppm sulfur will apply to all non-road diesel fuel by 2011. Locomotive and marine diesel fuel will be required to meet the ULSD standard beginning in 2012, resulting in further reductions of diesel emissions. Based on WRAP RMC models, implementation of the Federal programs alone will result in a 49 percent reduction in mobile source  $\text{NO}_x$  emissions and a 63 percent reduction in mobile source  $\text{SO}_x$  emissions from the baseline to 2018. This trend is expected to provide significant visibility benefits for Jarbidge and at other Class I areas in neighboring states.

The State's continued implementation of the Prevention of Significant Deterioration (PSD) and New Source Review (NSR) program requirements, including FLM involvement in reviewing impacts on Class I areas, also supports achieving visibility goals. \*36466 These programs will protect the least impaired days from further degradation and will assure that no Class 1 areas experience degradation from expansion or growth of a single new source or the regional development of stationary sources. Nevada also has emission control requirements for motor vehicles in Clark and Washoe Counties; for residential burning in Washoe County; for  $\text{PM}_{10}$  nonattainment/maintenance areas; and for dust suppression at construction sites and unpaved roads. Together with the State's renewable energy requirements, these ongoing programs will contribute to improvements in visibility at protected Class I areas.

## 3. Construction Activities

Nevada manages the release of fugitive dust related to construction activities through the implementation of regulations set forth in the [Nevada Administrative Code 445B.22037](#). The State requires fugitive dust to be controlled regardless of the size or amount of acreage disturbed, and requires the use of best practical methods to prevent airborne particulate matter. All activities that have the potential to adversely affect local air quality must include all appropriate measures to limit controllable emis-

sions. Appropriate measures for dust control may consist of a phased approach to acreage disturbance rather than disturbing the entire area all at once; using wet suppression through such application methods as water trucks or water sprays systems to control windblown dust; the application of soil binding agents or chemical surfactant to roadways and areas of disturbed soil; as well as the use of wind-break or wind-limiting fencing designed to limit wind erosion of soils.

#### 4. Source Retirement and Replacement Schedules

While NDEP did not include any repair or replacement schedules for large point sources, EPA is satisfied with the explanation that it is very difficult for the regulatory community to predict potential permit revisions for large sources. In general, repair and replacement of current facilities over time will reduce emissions as new technology is incorporated in industrial processes. Similarly, the construction of new sources may contribute to the early or scheduled retirement of older, less well-controlled sources. Five proposed power plants for Nevada were included in the projected emissions inventory for 2018. Whether these new sources are built will influence the future activity of existing sources.

#### 5. Smoke Management Programs

Preventing and managing emissions from prescribed fires in Nevada is achieved through implementation of the Nevada Smoke Management Program (SMP) and through Open Burning regulations. The State's SMP was developed to coordinate and facilitate the statewide management of prescribed outdoor burning, specifically for land management purposes. This program is designed to meet the requirements of Nevada's air quality statutes listed in [Nevada Revised Statutes \(NRS\) 445B.100](#) through [445B.845](#), inclusive, and the requirements of the USEPA Interim Air Quality Policy on Wild Land and Prescribed Fires (EPA OAQPS, April 23, 1998). The SMP supports the visibility protection goals for Class I areas. This program does not, however, supersede the authority of local governments to regulate and control smoke and air pollution under [NRS 244.361](#) and [NRS 268.410](#) or the authority of the State forester to regulate controlled fires under [NRS 527.122](#) through [527.128](#).

Open burning is controlled through a comprehensive set of regulations that are found in NAC 445B.22067. These regulations apply to Federal, state and private lands and prohibit open burning of combustible refuse, waste, garbage, oil or open burning for any salvage operation. Exemptions are granted for open burning conducted for the purposes of weed abatement, conservation, disease control, game or forest management, and fire training. Burning for agricultural purposes is exempt, as is the burning of yard waste and untreated wood at single-family residences. Small fires used for cooking, recreation, education or ceremonial purposes are also exempt.

#### 6. Other Measures Supporting the LTS

NDEP intends to evaluate additional controls for sources that impact visibility in Class I areas in the required progress report due in 2014. This evaluation will take into account new monitoring and modeling information, new regulations, and new guidance that may result in additional control measures consistent with the reasonable progress requirement of the RHR. If additional controls are identified, the progress report will update the plan to include an implementation schedule for controls, necessary rulemaking, projected visibility improvements, and revised RPGs for 2018.



## 7. Interstate Transport Requirements for Visibility

Section 110(a)(2)(D)(i)(II) of the Act requires SIP revisions to contain adequate provisions to prohibit any source or other types of emission activity within the state from emitting any air pollutant in amounts that will interfere with another state's plan to protect visibility. Nevada submitted its SIP for Interstate Transport to EPA on February 7, 2007, which EPA approved and promulgated in the Federal Register on July 31, 2007 (70 FR 41629). In our Federal Register Notice, we deferred action on whether Nevada interferes with other states' plans to address regional visibility impairment caused by regional haze until we received Nevada's Regional Haze SIP. As explained in Section IV.D.2. of this notice, NDEP relied on the WRAP's source apportionment modeling to demonstrate that Nevada's emissions are projected to have a minimal contribution to sulfate and nitrate extinction in each of 24 Class I areas in five adjacent states. Moreover, none of the neighboring western states have requested emission reductions from Nevada in order to meet their RPGs. Therefore, in proposing to approve Nevada's RH SIP, we are proposing to find that this plan revision contains adequate provisions to protect visibility in other states.

### *H. Monitoring Strategy*

Nevada's SIP includes the required monitoring strategy for measuring, characterizing and reporting on regional haze visibility impairment as required in 51.308(d)(4). The primary source of monitoring data for the regional haze program in Nevada is the IMPROVE network. There is currently one IMPROVE monitoring site at Jarbidge. IMPROVE monitoring data serves as the baseline for the regional haze program, and is the source of data for states to comply with the regional haze monitoring requirements now and in the future. States have access to the IMPROVE data and data analysis tools through the Visibility Information Exchange Web System (VIEWS), which is maintained by the WRAP and other regional planning organizations. The operation of the IMPROVE network is dependent on EPA funding.

#### 1. Coordination of RAVI With RHR

Nevada's monitoring strategy is coordinated with the monitoring required for Reasonably Attributable Visibility Impairment (RAVI) that is codified under a Federal Implementation Plan (FIP) for the State. \*36467 RAVI, which predates the RHR, is visibility impairment that is caused by the emission of air pollutants from one or a small number of sources. The provisions of visibility monitoring for RAVI in 40 CFR 52.26 are incorporated into the visibility FIP for Nevada in 40 CFR 52.1488. Under the FIP, EPA has responsibility in cooperation with the appropriate FLMs to monitor visibility in Nevada's Class I area. NDEP coordinates its regional haze monitoring with the FIP for RAVI by participating in the IMPROVE network, and utilizing data from the same IMPROVE monitor at Jarbidge.

#### 2. Additional Monitoring Sites

EPA agrees with Nevada's assessment that the existing IMPROVE monitor at Jarbidge, its only class I area, is sufficient to address regional haze and determine reasonable progress toward the national visibility goal. The monitor is located in the Humboldt National Forest in northeastern Nevada, about one kilometer north of the city of Jarbidge in the Jarbidge River drainage.

### 3. Using and Reporting Monitoring Data

Nevada will continue to rely on the IMPROVE network, technical support from the WRAP, and regional technical tools (e.g., VIEWS and WRAP's Technical Support System) to assess the contribution of emissions to visibility impairment at Class I areas within and outside the State. The IMPROVE network was established in the 1980s to measure visibility impairment in mandatory class I areas throughout the United States. The IMPROVE monitors were used by WRAP and NDEP as the source of data for the 2000-2004 baseline and for future projections, and is the source of record for air quality professionals to track visibility improvement or degradation. Visibility monitoring data is available to the public, states and EPA in an electronic format at the IMPROVE and VIEWS Web sites

### 4. Statewide Emissions Inventory

NDEP commits to updating periodically its statewide emissions inventory, tracking emissions changes, determining trends, and utilizing the WRAP's services to evaluate reasonable progress. Nevada has a statewide emissions inventory of pollutants reasonably anticipated to cause or contribute to visibility impairment as described in section III.B. of this notice. NDEP annually updates its inventory of major point sources and its entire inventory every three years as required by EPA's Consolidated Emissions Reporting Rule. The State's capacity to fulfill future requirements to project emissions and evaluate progress depend on the continued existence of the IMPROVE program as well as the technical support of the WRAP or a similar regional planning organization

#### *I. State and Federal Land Manager Coordination*

Nevada participated fully in the WRAP process, the primary forum for consultation among western states, Tribal nations, Federal agencies, stakeholder groups and the public. FLMs from the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management and the U.S. Forest Service were actively engaged in the WRAP's development of technical analyses and reports for the western region and individual states. To facilitate consultation, NDEP provided a list of its agency contacts to the FLMs in a letter dated September 15, 2006. The FLMs had numerous opportunities throughout the WRAP process to participate fully in the development and review of regional technical documents that form the basis of the western states' plans. Nevada provided additional opportunities for coordination and consultation with FLMs through local meetings and stakeholder workshops. NDEP provided its draft RH SIP to the FLMs on January 5, 2009 for a 60-day review and comment period. Comments were received from the FLMs on March 4 and 6, 2009. NDEP's responses to the FLMs' comments are in Appendix C of the Nevada RH SIP. EPA believes that NDEP adequately addressed the FLMs' concerns either through revisions to the SIP, or in responses to their comments. NDEP also has committed to provide the FLMs an opportunity to review and comment on future SIP revisions, the 5-year progress reports, and the implementation of other programs that may contribute to class I visibility impairment. All SIP revisions will include a description of how the state consulted with and addressed any comments provided by the FLMs. At a minimum, NDEP will meet with the FLMs on an annual basis through the WRAP, as long as the WRAP continues to provide this forum. EPA is satisfied that Nevada has coordinated with the FLMs as required in [40 CFR 51.308\(i\)\(1-4\)](#).

#### *J. Periodic SIP Revisions and 5-Year Progress Reports*

Nevada affirmed its commitment to submit a report to EPA every five years evaluating progress toward the RPG for its Class I area as well as Class I areas outside the State that may be affected by emissions from within the State as required in [40 CFR 51.308\(g\)](#). The first report is due five years after the State's submittal, which is November 18, 2014. The required elements for these reports are listed in section III of this notice.

Nevada commits to making an adequacy determination of the current SIP at the same time it submits the five-year progress report as required in [40 CFR 51.308\(h\)](#). If Nevada determines that the current implementation plan is or may be inadequate due to emissions from within the State, Nevada will develop additional strategies to address the plan deficiencies and revise the SIP within one year from the date that the progress report is due. If Nevada determines that the plan is or may be inadequate due to emissions from other states, Nevada will notify EPA and the other states. The affected states are required to address the deficiency through the regional planning process by developing additional strategies.

Nevada also commits to complete and submit a comprehensive RH SIP revision to EPA by July 31, 2018 and every 10 years thereafter as required in [40 CFR 51.308\(f\)](#). In these comprehensive revisions, the State must evaluate and reassess all of the elements required in [40 CFR 51.308\(d\)](#), taking into account improvements in monitoring data collection and analysis techniques and control technologies. The State must also address current visibility conditions, actual progress toward natural conditions, effectiveness of the long-term strategy, and the reasonable progress goal.

#### V. EPA's Proposed Action

EPA believes the Nevada RH SIP fulfills all the relevant requirements of CAA Section 169A and the Regional Haze Rule. Therefore, we are proposing a full approval of the plan as described in Section 110(k)(3) of the Act. Regarding the major requirements, we find that Nevada has: established baseline visibility conditions and a reasonable progress goal for its one Class I area; developed a long-term strategy with enforceable measures to ensure reasonable progress toward achieving the RPG in the first planning period ending in 2018; adequately applied Best Available Retrofit Technology to specific stationary sources; developed a regional haze monitoring strategy; provided for periodic progress reports and revisions; provided for consultation and coordination with Federal land managers; and provided for the regional haze plan's future review and revisions. We also are proposing to find that emissions from Nevada do not interfere with other states' measures to protect **\*36468** visibility as required by CAA Section 110(a)(2)(D)(i)(II).

#### VI. Statutory and Executive Order Reviews

Under the Clean Air Act, 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 SIP submissions, EPA's role is to approve State choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under [Executive Order 12866 \(58 FR 51735, October 4, 1993\)](#);



- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act ([44 U.S.C. 3501 et seq.](#));
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act ([5 U.S.C. 601 et seq.](#));
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 ([Pub. L. 104-4](#));
- Does not have Federalism implications as specified in [Executive Order 13132 \(64 FR 43255, August 10, 1999\)](#);
- Is not an economically significant regulatory action based on health or safety risks subject to [Executive Order 13045 \(62 FR 19885, April 23, 1997\)](#);
- Is not a significant regulatory action subject to [Executive Order 13211 \(66 FR 28355, May 22, 2001\)](#);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ([15 U.S.C. 272](#) note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not interfere with [Executive Order 12898 \(59 FR 7629 \(Feb. 16, 1994\)\)](#) because EPA lacks the discretionary authority to address environmental justice in this rulemaking.

In addition, this rule does not have Tribal implications as specified by [Executive Order 13175 \(65 FR 67249, November 9, 2000\)](#), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on Tribal governments or preempt Tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen oxides, Sulfur dioxide, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: [42 U.S.C. 7401 et seq.](#)

Dated: June 9, 2011.

Jared Blumenfeld,

Regional Administrator, Region 9.

[FR Doc. 2011-15238 Filed 6-21-11; 8:45 am]

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76 FR 36450-01, 2011 WL 2456581 (F.R.)

END OF DOCUMENT

RULES and REGULATIONS  
ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2011-0130, FRL-9612-7]

Approval and Promulgation of Air Quality Implementation Plans; State of Nevada; Regional Haze  
State Implementation Plan

Monday, March 26, 2012

AGENCY: Environmental Protection Agency (EPA).

**\*17334 ACTION:** Final rule.

**SUMMARY:** EPA is finalizing its approval of most of the Nevada Regional Haze State Implementation Plan (SIP) that implements the Clean Air Act (CAA) Regional Haze Rule requiring states to prevent any future and remedy any existing man-made impairment of visibility in mandatory Class I areas through a regional haze program. EPA proposed to approve all parts of Nevada's SIP revisions on June 22, 2011 ([76 FR 36450](#)). This final approval applies to all aspects of Nevada's SIP except for that portion of Nevada's determination regarding the Best Available Retrofit Technology (BART) to reduce nitrogen oxide (NO<sub>X</sub>) emissions at the Reid Gardner Generating Station (RGGGS). We will take action on BART for NO<sub>X</sub> at RGGGS in a future notice.

**DATES:** Effective Date: This rule is effective on April 25, 2012.

**ADDRESSES:** EPA has established docket number EPA-R09-OAR-2011-0130 for this action. Generally, documents in the docket are available electronically at <http://www.regulations.gov> or in hard copy at EPA Region 9, 75 Hawthorne Street, San Francisco, California. Please note that while many of the documents in the docket are listed at <http://www.regulations.gov>, some information may not be specifically listed in the index to the docket and may be publicly available only at the hard copy location (e.g., copyrighted material, large maps, multi-volume reports or otherwise voluminous materials), and some may not be available at either locations (e.g., confidential business information). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed directly below.

**FOR FURTHER INFORMATION CONTACT:** Thomas Webb, U.S. EPA, Region 9, Planning Office, Air Division, Air-2, 75 Hawthorne Street, San Francisco, CA 94105. Thomas Webb can be reached at telephone number (415) 947-4139 and via electronic mail at [webb.thomas@epa.gov](mailto:webb.thomas@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document, wherever "we," "us," or "our," is used, we mean the United States Environmental Protection Agency (EPA).

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#### I. Background

##### A. *Description of Regional Haze*

Regional haze is the impairment of visibility across a broad geographic area produced by numerous sources and \*17335 activities that emit fine particles and their precursors, primarily sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>X</sub>), and in some cases, ammonia (NH<sub>3</sub>) and volatile organic compounds (VOC). Fine particle precursors react in the atmosphere to form fine particulate matter (PM<sub>2.5</sub>), primarily sulfates, nitrates, organic carbon, elemental carbon, and soil dust, which impair visibility by scattering and absorbing light. Visibility impairment reduces the clarity, color, and visible distance that one can see. PM<sub>2.5</sub> can also cause serious health effects and mortality in humans and contributes to environmental effects such as acid deposition and eutrophication of water bodies.

Data from existing visibility monitors, the "Interagency Monitoring of Protected Visual Environments" (IMPROVE) network, indicate that visibility impairment caused by air pollution occurs virtually all the time at most federally protected national parks and wilderness areas, known as Class I

areas. The average visual range in many Class I areas in the western United States is 100 to 150 kilometers, or about one-half to two-thirds of the visual range that would exist without man-made air pollution.[FN1] In most of the eastern Class I areas of the United States, the average visual range is less than 30 kilometers, or about one-fifth of the visual range that would exist under estimated natural conditions. [64 FR 35715 \(July 1, 1999\)](#).

FN1 Visual range is the greatest distance, in kilometers or miles, at which one can view a dark object against the sky.

### *B. History of Regional Haze Regulations*

In section 169(A)(1) of the 1977 Amendments to the CAA, Congress established as a national goal the “prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from man-made air pollution.” Visibility was determined by Congress to be an important value in 156 mandatory Class I Federal areas [FN2] as listed in [40 CFR 81.400-437](#). In the first phase of visibility protection, EPA promulgated regulations on December 2, 1980, to address visibility impairment in Class I areas that is “reasonably attributable” to a single source or small group of sources, i.e., “reasonably attributable visibility impairment” or RAVI. [45 FR 80084](#). EPA deferred action on regional haze that emanates from a variety of sources until monitoring, modeling and scientific knowledge about the relationship between pollutants and visibility impairment were improved.

FN2 Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6000 acres, wilderness areas and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977. [42 U.S.C. 7472\(a\)](#). In accordance with section 169A of the CAA, EPA, in consultation with the Department of Interior, promulgated a list of 156 areas where visibility is identified as an important value. [44 FR 69122 \(November 30, 1979\)](#). Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to “mandatory Class I Federal areas.” Each mandatory Class I Federal area is the responsibility of a “Federal Land Manager.” [42 U.S.C. 7602\(i\)](#). When we use the term “Class I area” in this action, we mean a “mandatory Class I Federal area.”

Congress added section 169B to the CAA in 1990 to conduct scientific research on regional haze. This legislation established the Grand Canyon Visibility Transport Commission (GCVTC), which issued its report, “Recommendations for Improving Western Vistas,” on June 10, 1996. These recommendations informed the regulatory development of a regional haze program, and provided an option for certain western states to address visibility at 16 Class I areas on the Colorado Plateau under [40 CFR 51.309](#).

EPA promulgated a rule to address regional haze on July 1, 1999 known as the Regional Haze Rule (RHR). See [64 FR 35713](#) as amended at [70 FR 39156 \(July 6, 2005\)](#) and [71 FR 60631 \(October 13, 2006\)](#). The RHR revised the existing visibility regulations to include provisions addressing regional

haze impairment and established a comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at [40 CFR 51.308](#) and [51.309](#), are included in EPA's visibility protection regulations at [40 CFR 51.300-309](#).

The requirement to submit a regional haze SIP revision applies to all 50 states, the District of Columbia, and the Virgin Islands. States were required to submit the first SIP addressing regional haze visibility impairment no later than December 17, 2007. [40 CFR 51.308\(b\)](#). Since most states, including Nevada, did not submit SIPs prior to the deadline, EPA made a Finding of Failure to Submit that under the Clean Air Act had the effect of creating a deadline of January 15, 2011, for EPA to approve a SIP or publish a Federal [Implementation Plan \(FIP\)](#). [74 FR 2392 \(January 15, 2009\)](#). EPA is publishing this final action to meet this obligation in part.

For a more detailed discussion of the CAA and RHR requirements, please see sections II and III of our proposal dated June 22, 2011 ([76 FR 36450](#)). Our evaluation of the Nevada Regional Haze Plan is in section IV of the same proposal.

### *C. Our Proposed Action*

On June 22, 2011, EPA proposed to approve all portions of Nevada's Regional Haze SIP as meeting the relevant requirements of CAA Section 169A and the Regional Haze Rule. We proposed to find that Nevada appropriately established baseline visibility conditions and a reasonable progress goal for its one Class I area; developed a long-term strategy with enforceable measures to ensure reasonable progress toward achieving the Reasonable Progress Goal in the first planning period ending in 2018; adequately applied Best Available Retrofit Technology to specific stationary sources, including RGGGS; developed a regional haze monitoring strategy; provided for periodic progress reports and revisions; provided for consultation and coordination with federal land managers; and provided for the regional haze SIP's future review and revisions. We also proposed to find that emissions from Nevada do not interfere with other states' measures to protect visibility as required by CAA Section 110(a)(2)(D)(i)(II). Our proposed action provides more information about the relevant CAA requirements, EPA guidance, the State's submittals, and our review and evaluation of the SIP revisions.

## II. BART Determination for NO<sub>X</sub> at Reid Gardner

We are taking no action in today's rule on the portion of the Nevada SIP that contains the BART determination at RGGGS for NO<sub>X</sub>. Following our review of the public comments on this issue, we performed additional analysis of Nevada's NO<sub>X</sub> BART determination for RGGGS. As a result, we no longer consider the currently available information to be sufficient for us to take final action on the Nevada Division of Environmental Protection's (NDEP's) determination that rotating overfire air (ROFA) with Rotamix (a form of selective non-catalytic reduction or SNCR) is the NO<sub>X</sub> control technology that represents BART. We intend to consider this determination in more detail at a future date.

### *A. Background*

The RHR provides that a BART determination must take into account several factors, which are frequently referred to as the "five-factor analysis." These factors are listed below ([40 CFR 51.308\(e\)\(1\)\(ii\)\(A\)](#)):

- \*17336 • The cost of compliance for the technically feasible control technologies;
- The energy and non-air quality impacts of the control technologies;
- Any existing air pollution control technologies at the source;
- The remaining useful life of the source; and
- The degree of visibility improvement which may reasonably be anticipated to result from the various control technologies.

#### *B. NDEP's Determination*

RGGGS consists of four coal-fired boilers, three of which are BART-eligible units with generating capacity of 100 megawatts (MW) each. A fourth unit (250 MW) is not BART-eligible. Nevada Energy, the owner of RGGGS, performed a BART analysis for the three BART-eligible RGGGS units and submitted the results of its analysis to NDEP.[FN3] In its BART analysis, Nevada Energy considered several NO<sub>x</sub> control technologies and evaluated the cost of compliance and visibility improvement associated with each technology. In preparing the SIP, NDEP relied on certain aspects of Nevada Energy's analysis while performing updated analyses for other aspects. When considering the cost and cost effectiveness of compliance, NDEP developed its own set of emission reduction estimates for the various NO<sub>x</sub> control technologies, but used Nevada Energy's estimates of total capital and annual costs.[FN4] When considering the degree of visibility improvement associated with various control technologies, NDEP relied upon the visibility impacts for each control option as modeled by Nevada Energy, rather than modeling the visibility impacts attributable to NDEP's own estimates of NO<sub>x</sub> removal.

FN3 Nevada Energy BART Analysis Reports, Reid—Gardner—1—10-03-08.pdf, Reid—Gardner—2—10-03-08.pdf, Reid—Gardner—3—10-03-08.pdf. Available in Docket Item No. EPA-R09-OAR-2011-0130-0007.

FN4 Based on a comparison of emission reductions summarized in Table 1, NDEP Reid Gardner BART Determination, October 22, 2009 (Available as Docket Item No. EPA-R09-OAR-2011-0130-0005), and emission reductions summarized in Table 3-2 of the NVE BART Analysis Reports. Visibility impacts as summarized from Table 5-4 of the NVE BART Analysis Reports.

In its submittal to NDEP, Nevada Energy determined that low NO<sub>x</sub> burners (LNB) with OFA (overfire air) were BART for NO<sub>x</sub>. In preparing the SIP, NDEP determined that a more stringent control technology, ROFA with Rotamix, was BART for NO<sub>x</sub>. NDEP eliminated even more stringent control options, such as Selective Catalytic Reduction (SCR) with LNB and OFA, on the grounds that “the \$/ton of NO<sub>x</sub> removed increased significantly \* \* \* without correspondingly significant improvements in visibility.”[FN5]

FN5 Revised NDEP Reid Gardner BART Determination Review, page 6.



Available as Docket Item No. EPA-R09-OAR-2011-0130-0005. See also Nevada Regional Haze SIP, Appendix D (Responses to Comments), pages D-32 to -42. Available in docket item No. EPA-R09-OAR-2011-0130-003.

### *C. Public Comments Relevant to NDEP's Determination*

As noted in Section II.B above, NDEP's elimination of control options more stringent than ROFA with Rotamix was based on the incremental cost effectiveness (\$/ton) and expected visibility improvement of the various options. EPA received several comments (see Docket Items 0054, 0057, 0061, 0062 and 0062 Attachment 6) alleging flaws in NDEP's analysis and response to comments, and stating that SCR should be BART for NO<sub>x</sub> at RGGGS. These commenters alleged certain flaws and submitted additional information in criticizing NDEP's development of the cost effectiveness values and expected visibility improvement attributable to the more stringent SCR-based control option.

Regarding cost effectiveness, several commenters (see Docket Items 0054, 0057, 0061, and 0062) alleged that the total capital and annual cost estimates relied upon by NDEP for the SCR-based control options were overestimated, included several costs not allowed by EPA's Control Cost Manual (CCM) such as owner's costs, surcharge, and allowance for funds used during construction (AFUDC), and used certain variables and values that were either inflated or unreasonable. One commenter (see docket item 0062 Attachment 6) performed a revised analysis of SCR cost effectiveness that adjusted for these alleged issues, and projected a 33 to 40 percent decrease in average and incremental cost effectiveness values as a result of these adjustments. In addition, commenters stated that total capital and annual cost estimates lacked evidentiary support in the administrative record due to the absence of detailed information such as equipment design parameters, equipment lists, and actual cost calculations. Finally, commenters also stated that the level of SCR performance relied upon by NDEP is not supported in the administrative record by site-specific information such as vendor quotes or specifications (see Docket Items 0054 and 0061 to 0063).

Regarding visibility improvement, commenters (see Docket Items 0054 and 0062) noted that while baseline visibility modeling indicated that RGGGS currently causes or contributes to visibility impairment at multiple Class I areas, control scenario visibility modeling results were only provided for the single closest Class I area, Grand Canyon National Park. They asserted that the potential visibility benefit at all affected Class I areas should be accounted for when considering control technology options. In addition, as described in Section II.B above, NDEP estimated larger NO<sub>x</sub> emission reductions than the emission reductions estimated by Nevada Energy. NDEP, however, continued to rely on the visibility modeling provided by Nevada Energy, and did not update the modeling to reflect NDEP's larger NO<sub>x</sub> emission reduction estimates. As a result, the existing visibility modeling does not reflect the incremental visibility improvement attributable to NDEP's estimates of NO<sub>x</sub> emission reductions. Finally, commenters noted that certain modeling files and documentation were missing from our docket and were unavailable from NDEP, such as the NO<sub>x</sub> control scenario modeling result files and supporting information for NDEP's baseline emission scenarios.

### *D. EPA's Analysis*

After reviewing the public comments, we performed additional analysis of the cost effectiveness and visibility improvement associated with the various NO<sub>x</sub> control technologies considered by NDEP in

determining BART at RGGGS. Based upon this additional analysis, we no longer consider the currently available supporting information to be sufficiently detailed to allow us to perform a critical review of these issues. As a result, we are taking no action in this rule on NDEP's determination that ROFA with Rotamix is the NO<sub>X</sub> control technology that represents BART.

Therefore, EPA is taking no action on the portion of the SIP containing the BART determination for NO<sub>X</sub> at RGGGS including the corresponding emission limits and schedules of compliance for NO<sub>X</sub> at RGGGS in the SIP's long-term strategy. Specifically, these are sections 5.5.3, 5.6.3 and 7.2 of Nevada's SIP that address the NO<sub>X</sub> BART control analyses, visibility improvement, and implementation at RGGGS. Since the emissions inventories used to develop the reasonable progress goal (RPG) did not include NO<sub>X</sub> reductions from BART, the fact that we take no action in this rule regarding the RGGGS BART \*17337 determination for NO<sub>X</sub> does not impact the RPG, and will not require adjustments to the long-term strategy (LTS) in the SIP.[FN6] EPA will propose further action on this particular portion of the SIP in the future.

FN6 Per the Nevada RH SIP, page 6-5, the only BART emission reductions included in the 2018 emission inventory were SO<sub>2</sub>—T22 reductions resulting from presumptive BART limits.

### III. EPA Responses to Public Comments Except BART for NO<sub>X</sub> at RGGGS

EPA's proposed approval published on June 22, 2011 (76 FR 36450) included a 30-day public comment period, which ended on July 22, 2011. We subsequently extended the comment period by 30 days until August 22, 2011 (76 FR 43963). We received comments from WildEarth Guardians, a consortium of environmental and conservation organizations [FN7] ("Consortium"), the Moapa Band of Paiutes, the Nevada Division of Environmental Protection (NDEP), the National Park Service, the U.S. Fish and Wildlife Service, and seven individuals. With the exception of NDEP's comments, which support EPA's proposed approval of its plan, most of the comments expressed opposition to EPA's full approval of the SIP. The majority of these comments criticized our proposed approval of NDEP's determination of BART controls to reduce emissions of NO<sub>X</sub> at RGGGS. In this final rule approving all other portions of Nevada's RH SIP, we are responding to all other major comments on our proposed SIP approval. We find that the SIP is approvable except BART for NO<sub>X</sub> at RGGGS on which EPA is taking no action.

FN7 The Consortium's comment letter was signed by representatives of the Sierra Club, National Parks Conservation Association, Citizens for Dixie's Future, Defend Our Desert, Friends of Gold Butte, Grand Canyon Trust, and Western Resource Advocates.

#### A. Reasonable Progress Goal

Comments: The National Park Service and U.S. Fish and Wildlife Service expressed concern that the SIP's reasonable progress analysis was not consistent with Section 308(d)(1) of the Regional Haze Rule and EPA's Guidance for Setting Reasonable Progress Goals under the Regional Haze Program because NDEP "did not consider what additional emissions reductions beyond those already being implemented might be reasonable to improve visibility." Similarly, WildEarth Guardians commented that the Clean Air Act requires EPA to base reasonable progress goals on the factors set forth under



Section 169A(g), and not the bare minimum required to meet the uniform rate of progress. WildEarth Guardians expressed concern that “EPA has overlooked opportunities to further reduce haze forming pollution from sources in Nevada.” By contrast, NDEP asserted that its reasonable progress analysis considered the four factors required under the Regional Haze Rule (i.e., the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements). Specifically, NDEP noted that “[c]ost was considered first, \* \* \* and the NDEP concluded it was not necessary to continue with an analysis of the remaining factors.”

Response: As explained in the proposed rule, in promulgating the SIP NDEP considered the four factors in setting the reasonable progress goal for the Jarbidge Wilderness Area, the only Class I area in Nevada. The RHR and EPA's guidance affords the State considerable flexibility in determining whether additional emission reduction measures are needed to achieve the RPG in the first planning period. The NDEP reasonably concluded that the cost of additional controls was not warranted given projected emissions reductions from anthropogenic sources and the fact that the majority of haze at Jarbidge is from natural and out-of-state sources. Moreover, NDEP noted in its comments that “of the five proposed electrical generating units (EGUs) included in the State's 2018 emissions inventory, only two have moved forward and are now operational,” which would further lower emissions projections for both NO<sub>x</sub> and SO<sub>2</sub> by 2018. The comments do not demonstrate that the State failed to consider reasonably the four factors, but the comments question whether the State should have done a more robust analysis. EPA has considered the comments and the comments have not provided any further specific facts that should have been considered in the State's analysis beyond conclusory criticisms. Therefore, given the broad discretion the RHR affords the State, and the lack of specificity in the comments on this issue, EPA reaffirms its proposed decision to approve the State's reasonable progress goal for Jarbidge.

### *B. Long-Term Strategy*

Comments: The Consortium argued that the SIP “does not contain evidence showing full and effective consultation with other states, does not ‘ensure that it has included all measures needed to achieve its apportionment of emission reduction obligations agreed upon’ through that consultation process and further fails to ‘document the technical basis, including modeling, monitoring and emissions information,’ on which it relies to determine its apportionment of emission reduction obligations agreed upon through that process.” Specifically, the Consortium noted that, “[a]lthough the Proposed SIP implies that Nevada consulted with the Western Regional Air Partnership (“WRAP”) in determining its apportionment of visibility impacts to Class I areas outside of the State of Nevada, the administrative record does not support the legally-required level of consultation.” They further argued that “WRAP's failure to apportion Nevada's contribution does not save Nevada from its independent obligation to require adequate BART determinations and a long-term strategy to reduce haze-causing pollutants in out-of-state Class I areas from its pollution sources.”

Response: EPA disagrees with the assertions that Nevada did not consult with other states, did not meet its source apportionment obligations to Class I areas in other states, and did not document the technical basis for its apportionment as required in 40 CFR 51.308(d)(3)(i), (ii), and (iii). Although Nevada lacked formal membership in the WRAP, representatives from NDEP actively participated with other state representatives in the WRAP's committees and work groups, which jointly directed

the development of the WRAP's technical analyses. Nevada and other western states relied on the WRAP's source apportionment modeling results to estimate the contribution of out-of-state emissions and relied on the WRAP's consultation process to ensure the compatibility of reasonable progress goals and long-term strategies.[FN8] Nevada used the WRAP's source apportionment modeling to demonstrate the minimal contribution of Nevada's emissions to sulfate and nitrate extinction at 25 Class I areas in five neighboring states.[FN9] Based on consultation through the WRAP, Nevada identified no major contributions that supported developing new interstate strategies, mitigation measures, or emissions reduction obligations. Nevada and neighboring states agreed that the implementation of BART and other existing measures in state regional haze plans were sufficient for the states to meet the reasonable progress goals for their respective Class I areas, and that future consultation would address any \*17338 new strategies or measures needed. Moreover, Nevada did not receive any requests from other states to achieve even greater reductions in its emissions in order for other states to meet their RPGs. Therefore, EPA reaffirms its proposed determination that Nevada adequately consulted with other states, demonstrated that its SIP includes all measures necessary to obtain its share of emission reductions at other Class I areas, and provided the technical basis to document its analysis.

FN8 See 9.1.3 Past Consultation with other States in Nevada's SIP.

FN9 See 4.3.3 Source Apportionment for Other Class I Areas in Nevada's SIP.

### C. BART for SO<sub>2</sub> and PM<sub>10</sub> at RGGGS

In addition to extensive comments addressing NDEP's BART determination for NO<sub>x</sub> at RGGGS, we also received comments concerning the timing of implementation of BART at RGGGS generally, as well as comments specifically addressing the SO<sub>2</sub> and PM<sub>10</sub> BART determinations for RGGGS. As noted above, we are not acting on NDEP's BART determination for NO<sub>x</sub> at RGGGS at this time. Therefore, our responses concerning RGGGS are limited to comments related to the SO<sub>2</sub> and PM<sub>10</sub> BART determinations.

#### 1. BART for SO<sub>2</sub> at RGGGS

Comments: Regarding NDEP's BART determination for SO<sub>2</sub> at RGGGS, WildEarth Guardians expressed concern that "SO<sub>2</sub> limits do not appear to represent the degree of reduction achievable through the application of the best system of continuous emission reduction." In particular, they asserted that "it appears that Reid Gardner is already meeting emission limits that are less than half of this proposed limit", and that "even Nevada recognizes the SO<sub>2</sub> emissions increases will occur as a result of [NDEP's] proposed BART." By contrast, the National Park Service and the U.S. Fish and Wildlife Service praised "NDEP's action to lower the SO<sub>2</sub> limit" at RGGGS.

Response: In setting the SO<sub>2</sub> BART limits for RGGGS, NDEP took into account the existing controls at the facility, consistent with CAA Section 169A(g)(2) and 40 CFR 51.308(e)(1)(ii)(A). In particular, NDEP considered the effect of new fabric filter baghouses that were installed on all three BART units at RGGGS in 2008 and 2009 pursuant to a consent decree between the facility's owner and NDEP and EPA.[FN10] The consent decree established an SO<sub>2</sub> emissions limit of 0.40 lbs/MMbtu (a million British thermal units), based on a 10-day rolling average period, for each of the three BART

units.[FN11] In its draft regional haze SIP, NDEP proposed an SO<sub>2</sub> emissions limit of 0.25 lbs/MMbtu for each of the three BART units at RGGGS. In response to comments from EPA and the National Park Service, NDEP subsequently lowered the BART limits to 0.15 lbs/MMbtu, based on a 24-hour averaging period.[FN12]

FN10 See Nevada's RH SIP Sections 5.5 and 6.5.2.2.

FN11 *United States v. Nevada Power Company*, Case 2:07-cv-00417 (D. Nev.) (consent decree entered June 15, 2007).

FN12 See Nevada's RH SIP Chapter 5, footnote 4.

In arguing for further reductions in these BART limits, WildEarth Guardians notes that, "according to Clean Air Markets data from the EPA, units 1-3 are meeting annual sulfur dioxide emission rates of between 0.054 and 0.064 lbs/MMbtu and have for at least the last two years." However, while the units' current annual average emission rates may be less than 0.15 lb/MMbtu, these figures are not directly comparable to the 24-hour rolling average emissions limits set by NDEP in its BART determination for RGGGS. The more relevant points of comparison are the units' current Title V permit limits of 0.40 lbs/MMbtu, based on a 10-day rolling average period, which are more than twice the limit that NDEP has set for each of the three BART units in its Regional Haze SIP.

In response to commenters' concerns regarding potential increases in SO<sub>2</sub> emissions as a result of NDEP's BART determination at RGGGS, EPA re-examined NDEP's estimates of emission reductions resulting from BART controls at RGGGS. Nevada's SIP provides two sets of estimated emission reductions resulting from BART controls at RGGGS, one based on the WRAP baseline (4,970 tons) and one based on NDEP's baseline (1,441 tons) for SO<sub>2</sub>. [FN13] Although SO<sub>2</sub> emissions are estimated to increase by 838 tons from NDEP's baseline, they are expected to decrease by 2,696 tons from the WRAP's baseline. Under both scenarios, the emissions after BART Controls are held constant at 2,279 tons. Thus, the difference in estimated emissions reductions is a reflection of the large difference between the WRAP baseline and the NDEP baseline for SO<sub>2</sub>.

FN13 See Nevada's RH SIP, Table 5-6 Reid Gardner: BART Emissions Reductions in Tons per Year.

NDEP's baseline emissions for SO<sub>2</sub> were calculated using acid rain data that omitted data deemed invalid due to monitoring problems that were addressed by the consent decree. According to NDEP, the omission of the invalid data effectively lowered the baseline emissions (measured in lbs/MMbtu) by nearly half.[FN14] Thus, the projected increase in SO<sub>2</sub> appears to be an artifact of NDEP's exceptionally low baseline that is attributable to the exclusion of invalid data.

FN14 See Nevada's RH SIP Section 5.5.

From a broader perspective, NDEP's BART determination for SO<sub>2</sub> at RGGGS will result in a lower emissions limit (0.15 lbs/MMbtu based on a 24-hour rolling average compared to the current Title V Permit limit of 0.40 lbs/MMbtu based on a 10-day rolling average period) related to the new fabric filter baghouses and existing wet soda ash with a dry flue gas desulfurization system. Since the BART determination lowers the short-term emissions limit, there is no valid reason to suspect that

SO<sub>2</sub> emissions will increase as a result of BART controls. EPA will use the progress report due five years after the SIP's approval to evaluate actual SO<sub>2</sub> emissions at RGGGS to ensure that NDEP's BART determination has not resulted in increased emissions and will encourage NDEP to take appropriate action, if necessary, at that time.

## 2. BART for PM<sub>10</sub> at RGGGS

Comments: Regarding the PM<sub>10</sub> limit, WildEarth Guardians expressed concern that “the proposed BART determination is unenforceable because there are no monitoring, recordkeeping, or reporting requirements proposed that would ensure compliance with the 24-hour limits. There are simply no monitoring requirements proposed that would actually ensure that the PM limit is met on a continuous basis. This is contrary to the Clean Air Act, which defines BART based on continuous emission reductions.”

Response: As explained in EPA's BART Guidelines, “[m]onitoring requirements generally applicable to sources, including those that are subject to BART, are governed by other regulations. See, e.g., 40 CFR part 64 (compliance assurance monitoring); 40 CFR 70.6(a)(3) (periodic monitoring); 40 CFR 70.6(c)(1) (sufficiency monitoring).” [FN15] The monitoring, recordkeeping and reporting requirements specifically applicable to RGGGS are found in the existing Nevada SIP as well as the facility's Title V permit. In particular, the applicable SIP requires continuous monitoring of opacity and compliance with a 20 percent opacity limit.[FN16] Although opacity does not directly correlate with particulate concentrations, it is a good indicator of proper operation of the baghouse since almost any opacity from a baghouse-controlled coal-fired boiler \*17339 is indicative of leaks in the baghouse. Under Part 64, such an excursion or exceedance must be addressed “as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.”[FN17] For directly assuring compliance with existing PM<sub>10</sub> limits, the Title V permit for RGGGS contains an annual stack test requirement using Method 5 for PM and Method 201A/202 for PM<sub>10</sub>. Given the current opacity limit in the SIP and the compliance methods in RGGGS's Title V permit, we are approving the BART determination for PM<sub>10</sub> in Nevada's RH SIP. We will continue to work with Nevada to ensure that all appropriate compliance provisions are in the SIP.

FN15 40 CFR part 51 Appendix Y, Section V.

FN16 See 40 CFR 52.1470(c); Nevada Administrative Code 445B.256-267, 22017.

FN17 40 CFR 64.7(d)(1).

## 3. Timing of Implementation

Comments: WildEarth Guardians expressed concern that “EPA has not demonstrated that ‘by January 1, 2015’ is as expeditiously as practical for complying with BART at Reid Gardner, nor shown that it is reasonable to allow the facility a full five years to come into compliance with BART.”

Response: The Nevada BART regulation in the Regional Haze SIP requires that the BART control measures at RGGGS must be installed and operating “[o]n or before January 1, 2015; or (2) [n]ot later than 5 years after approval of Nevada's state implementation plan for regional haze by the United

States Environmental Protection Agency Region 9, whichever occurs first.” Given the date of our approval of Nevada's SIP, the BART implementation deadline for the RGGGS is January 1, 2015, about three years from the date of this final rule. EPA considers Nevada's choice of the January 1, 2015, to be reasonable in this instance.

#### *D. Corrections to EPA's Technical Analysis*

Comments: NDEP noted a few corrections to EPA's analysis in the proposed rule at [76 FR 36450 \(June 22, 2011\)](#), but stated that these minor corrections do not alter any of EPA's conclusions. The first correction was to note that the percentages of emissions by source category shown in section IV.C.2 of EPA's proposed rule are based on the 2018 emissions inventory. The proposal omitted the date of the inventory. Secondly, NDEP commented that the discussion of predominant sources of PM<sub>2.5</sub> was in error because “the predominant source of PM fine emissions are windblown dust (43 percent) and fugitive dust (30 percent).” EPA had mistakenly attributed PM fine emissions to natural fires (49 percent) and area sources (37 percent). Lastly, NDEP commented on the sources of visibility impairment, saying that soil in PM<sub>2.5</sub> is mostly from windblown dust, not natural fire. EPA had mistakenly attributed the source of PM<sub>2.5</sub> to natural fire.

Response: EPA is correcting the record as noted above.

#### IV. EPA Action

Under section 110(k)(3) of the CAA, EPA is fully approving most portions of the Nevada Regional Haze SIP as satisfying all of the relevant requirements of CAA Section 169A and the Regional Haze Rule. For the portions of the SIP establishing BART for NO<sub>x</sub> at RGGGS, EPA is taking no action at this time, and will take action on those portions of the SIP in a separate rulemaking.

We find that Nevada has met the following Regional Haze Rule requirements: The State established baseline visibility conditions and reasonable progress goals for each of its Class I areas; the State developed a long-term strategy with enforceable measures ensuring reasonable progress towards meeting the reasonable progress goals for the first ten-year planning period, through 2018; the State has adequately addressed the application of Best Available Retrofit Technology to specific stationary sources, except for NO<sub>x</sub> at RGGGS; the State has an adequate regional haze monitoring strategy; the State provided for consultation and coordination with federal land managers in producing its regional haze plan; and, the State provided for the regional haze plan's future revisions.

In addition, under section 110(k)(3) of the CAA, we are fully approving the Nevada Regional Haze SIP as satisfying the CAA Section 110(a)(2)(D)(i)(II) requirement to prohibit emissions that will interfere with measures to protect visibility in another state for the 1997 8-hour ozone and 1997 PM<sub>2.5</sub> NAAQS.[FN18]

FN18 As noted in our proposal, [76 FR 36465](#), we previously approved Nevada's SIP for Interstate Transport as meeting the other requirements of CAA section 110(a)(2)(D)(i) for the 1997 8-hour ozone and 1997 PM—T22.5 NAAQS. See [70 FR 41629](#). We are now codifying this prior approval along with our current approval under a new section entitled “Interstate Transport.”



## V. Statutory and Executive Order Reviews

Under the Clean Air Act, 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 SIP submissions, EPA's role is to approve State choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Order 12866 ([58 FR 51735](#), October 4, 1993);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act ([44 U.S.C. 3501 et seq.](#));
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act ([5 U.S.C. 601 et seq.](#));
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 ([Pub. L. 104-4](#));
- Does not have Federalism implications as specified in Executive Order 13132 ([64 FR 43255](#), August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 ([62 FR 19885](#), April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 ([66 FR 28355](#), May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ([15 U.S.C. 272](#) note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not interfere with Executive Order 12898 ([59 FR 7629 \(Feb. 16, 1994\)](#)) because EPA lacks the discretionary authority to address environmental justice in this rulemaking.

In addition, this rule does not have tribal implications as specified by Executive Order 13175 ([65 FR 67249](#), November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. However, the Moapa Band of Paiutes did raise issues in the context of the BART determination for RGGs, which will be addressed at a future date. Region 9 engaged in formal consultation with the Moapa Band of Paiutes on August 11, 2011, and heard these issues in person. We will continue to consult with Moapa on RGGs.

**\*17340** The Congressional Review Act, [5 U.S.C. 801 et seq.](#), as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each

House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by May 25, 2012. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Sulfur dioxide, Particulate matter, Reporting and recordkeeping requirements, Visibility, Volatile organic compounds.

Dated: December 13, 2011.

Jared Blumenfeld,

Regional Administrator, Region 9.

Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart DD—Nevada40 CFR § 52.1470

2. In § 52.1470(c):

a. In paragraph (c), Table 1 is amended by adding an entry for “445B.029” after the entry for “445B.022”, and adding entries for “445B.22095,” and “445B.22096” after the entry for “445B.22093”.

3. The table in paragraph (e) is amended by adding an entry for “Nevada Regional Haze State Implementation Plan (October 2009)” to the end of the table.

40 CFR § 52.1470

§ 52.1470 Identification of plan.

\* \* \* \* \*

(c) \* \* \*

Table 1—EPA-Approved Nevada Regulations

State citation	Title/subject	State effective date	EPA approval date	Additional explanation
Nevada Administrative Code, Chapter 445B, Air Controls, Air Pollution; Nevada Administrative Code, Chapter 445, Air Controls, Air Pollution; Nevada Air Quality Regulations—Definitions				
*****				
445B.029	“Best available retrofit technology” defined		4/23/09 [Insert page number where the document begins 3/26/12]	Included in supplemental SIP revision submitted on September 20, 2011, and approved as part of approval of Nevada Regional Haze SIP.
*****				
445B.22095	Emission limitation for BART		4/23/09 [Insert page number where the document begins 3/26/12]	Included in supplemental SIP revision submitted on September 20, 2011, and approved as part of approval of Nevada Regional Haze SIP.
445B.22096, excluding the NO <sub>x</sub> emission limits and control types in sub-paragraph (1)(c)	Control measures constituting BART; limitations on emissions		1/28/10 [Insert page number where the document begins 3/26/12]	Included in supplemental SIP revision submitted on September 20, 2011, and approved as part of approval of Nevada Regional Haze SIP. Excluding the NO <sub>x</sub> emission limits and control types for units 1, 2 and 3 of NV Energy's Reid Gardner Generating Station.
*****				
*****				



(e) \* \* \*

Name of SIP provision	Applicable geographic or nonattainment area	State submittal date	EPA approval date	Explanation
* * * * *				
Nevada Regional Haze State Implementation Plan (October 2009), excluding the BART determination and the associated emission limits for NO <sub>x</sub> at Reid Gardner Generating Station in sections 5.5.3, 5.6.3 and 7.2	State-wide	11/18/09	[Insert page number where the document begins 3/26/12]	Excluding Appendix A (“Nevada BART Regulation”). The Nevada BART regulation, including NAC 445B.029, 445B.22095, and 445B.22096, is listed above in 40 CFR 52.1470(c).
* * * * *				

[40 CFR § 52.1488](#)

3. [Section 52.1488](#) is amended by adding paragraph (e) to read as follows:

[40 CFR § 52.1488](#)

[§ 52.1488](#) Visibility protection.

\* \* \* \* \*

(e) Approval. On November 18, 2009, the Nevada Division of Environmental Protection submitted the “Nevada Regional Haze State Implementation Plan.” With the exception of the BART determination and the associated emission limits for NO<sub>x</sub> at Reid Gardner Generating Station in sections 5.5.3, 5.6.3 and 7.2, the Nevada Regional Haze State Implementation Plan, as supplemented and amended on February 18, 2010 and September 20, 2011, meets the applicable requirements of Clean Air Act sections 169A and 169B and the Regional Haze Rule in [40 CFR 51.308](#).

[40 CFR § 52.1491](#)

4. Add a new [§ 52.1491](#) to read as follows:

[40 CFR § 52.1491](#)

[§ 52.1491](#) Interstate transport.

(a) Approval. On February 7, 2007, the Nevada Division of Environmental Protection submitted the

“Nevada State Implementation Plan for Interstate Transport to Satisfy the Requirements of the Clean Air Act 110(a)(2)(D)(i) for the 8-hour Ozone and PM<sub>2.5</sub> NAAQS Promulgated in July 1997” (“2007 Interstate Transport SIP”). The 2007 Interstate Transport SIP meets the requirements of Clean Air Act section 110(a)(2)(D)(i) for the 1997 8-hour ozone and 1997 PM<sub>2.5</sub> NAAQS other than the requirements of Clean Air Act section 110(a)(2)(D)(i)(II) regarding interference with other states' measures to protect visibility.

(b) Approval. The requirements of Clean Air Act section 110(a)(2)(D)(i)(II) regarding interference with other states' measures to protect visibility for the 1997 8-hour ozone and 1997 PM<sub>2.5</sub> NAAQS are met by the “Nevada Regional Haze State Implementation Plan,” as supplemented and amended on February 18, 2010 and September 20, 2011.

[FR Doc. 2012-7025 Filed 3-23-12; 8:45 am]

BILLING CODE 6560-50-P

77 FR 17334-01, 2012 WL 983512 (F.R.)  
END OF DOCUMENT

# EXHIBIT 1

**Case No. 12-71523**

**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

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WILDEARTH GUARDIANS,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Respondent,

THE STATE OF NEVADA, DIVISION OF ENVIRONMENTAL PROTECTION,

Intervenor,

NEVADA POWER COMPANY and SIERRA POWER COMPANY,

Intervenors.

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**DECLARATION OF VERONICA EGAN**

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I, Veronica Egan, declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge. If called as a witness in these proceedings, I could and would testify competently to these facts.

2. I currently reside in Mancos, Colorado, which is west of Durango, Colorado in the southwest portion of the state. I am a member of WildEarth Guardians. I am a member of WildEarth Guardians because I support their mission of protecting and restoring the wildlife, wild places, and wild rivers of the American West. To this end, I support their efforts to protect clean air, clean water, healthy wildlife populations and habitats, and to promote environmental protection broadly in the West. I have been a member of Guardians for more than 10 years.

3. I am an avid lover of wilderness and other wild places. I am the Executive Director of a Section 501(c)(3) nonprofit organization called the Great Old Broads for Wilderness, which is based in Durango, Colorado. The Great Old Broads is a 23-year old organization that uses the voice and activism of elders to preserve and protect wilderness and wild public lands nationwide.

4. I greatly enjoy recreating in wild areas on public lands, including designated Wilderness Areas and National Parks. I hike, backpack, and ride horses

and mules in these wild areas because I enjoy the remoteness and solitude of recreating in wild places, as well as the feeling of being so connected to nature. I value the scenery, clean water and clear air, and wildlife viewing of wild places, and depend on these things for my emotional and physical well-being. I visit wilderness areas at least 10 times a year. I intend to continue visiting wilderness areas and other wild places frequently as long as my body allows.

5. I am aware that under the Clean Air Act, a number of National Parks and Wilderness Areas in the western United States are designated as “Mandatory Class Federal I Areas” and that these areas received heightened air quality protection. I understand that these Class I Areas include Grand Canyon National Park in Arizona and Zion National Park in Utah, as well as the Jarbidge Wilderness Area in northern Nevada.

6. I am aware that on March 26, 2012, the U.S. Environmental Protection Agency (“EPA”) approved a plan prepared by the State of Nevada purporting to reduce haze-forming pollution within that state in order to protect Class I Areas. I am aware that when developing this plan, Nevada found that air pollution within that state contributes to haze pollution in the Jarbidge Wilderness Area and in 24 other Class I areas outside of Nevada. These affected areas include Grand Canyon and Zion National Parks. I am aware that by approving this plan,

EPA established air pollution limits for the Reid Gardner coal-fired power plant in southern Nevada, which will not sufficiently reduce regional haze as required by the Clean Air Act.

7. EPA's approval of Nevada's regional haze plan has enormous significance to me. I regularly (at least two to three times annually) visit Nevada and have done so for the last 20 years. I was just in Nevada (in and around Reno) the week of August 27-31, 2012. I have observed some of the largest sources of air pollution within the State, including the Reid Gardner coal-fired power plant in southern Nevada (which you can observe just north of Interstate 15 in the southern portion of the State east of Las Vegas near the town of Moapa) and the North Valmy coal-fired power plant in north-central Nevada (which you can easily observe just north of Interstate 80 east of Winnemucca). I have observed air pollution coming from the smokestacks of these coal-fired power plants. It is virtually impossible not to notice air pollution coming from the towering smokestacks of these power plants.

8. I know by reading EPA's data online that these power plants release large amounts of air pollution, particularly nitrogen oxides and sulfur dioxide, which both form haze and also can negatively affect human health. One can query the EPA's Air Markets Program Data website at <http://ampd.epa.gov/ampd/> (last



visited Aug. 31, 2012) and easily obtain emissions data for these power plants. According to this online database, in 2011, the power plants released several thousand tons of nitrogen oxides and sulfur dioxide. The table below shows this data.

**2011 Nitrogen oxide and sulfur dioxide emissions from North Valmy and Reid Gardner Coal-fired Power Plants in Nevada (emissions in tons).**

<b>Power Plant</b>	<b>Nitrogen Oxide</b>	<b>Sulfur Dioxide</b>
North Valmy	3,067.9	3,549.3
Reid Gardner	3,066	1,428.2

9. I enjoy clean air. I enjoy breathing it, seeing it, and knowing that the air is free of contamination and good for my health. It is virtually impossible not to observe air pollution from the Reid Gardner and North Valmy power plants. It is distressing to observe this air pollution, both because it is aesthetically displeasing and adverse to my physical health. I intend to continue visiting Nevada at least twice a year, including the areas where the Reid Gardner and North Valmy power plants are located at least once a year, and, unless and until EPA requires Nevada to better reduce haze-causing pollution, will continue to observe air pollution from these plants.

10. I also regularly visit Class I Areas that are impacted by sources of air pollution in Nevada, including Zion and Grand Canyon National Parks. I regularly visit these National Parks to enjoy the wilderness within these areas. I visit Zion National Park at least once every other year and Grand Canyon National Park at least once a year. I have regularly visited these Parks for the past 30 years. I intend to continue visiting these National Parks throughout the foreseeable future. I have plans to visit the north rim of Grand Canyon National Park in late March of 2013.

11. I have noticed over the years I have visited these National Parks, the air quality has gotten worse. To put it simply, these Parks have gotten hazier. It has gotten more difficult to view and enjoy the scenic vistas within these Parks. This has been especially evident on my visits to the North Rim of Grand Canyon National Park, where views over the canyon are increasingly clouded. This has diminished my enjoyment of visiting these wilderness areas. I intend to continue visiting Zion and Grand Canyon throughout the foreseeable future as I have regularly done for past 20 or more years. Unless and until EPA requires Nevada to better reduce haze-causing pollution, this haze, part of which is created in and disseminated from Nevada, will continue to negatively impact my enjoyment of these areas if it persists.

12. I understand that EPA approved Nevada's regional haze plan, which fell short in several regards and fails to protect clean air and therefore enhance visibility within and near Nevada. EPA's approval of this plan harms and will continue to harm me.

13. In particular, the EPA approved the State of Nevada's plan even though it fails to actually reduce haze-forming sulfur dioxide emissions from the Reid Gardner coal-fired power plant. According to Nevada, the Reid Gardner coal-fired power plant causes haze pollution in 24 Class I areas outside of the state, including Grand Canyon and Zion National Parks. My enjoyment of Grand Canyon and Zion National Parks will continue to be diminished as a result of this haze.

14. EPA also approved the State of Nevada's complete failure to assess whether air pollution, including nitrogen oxides and sulfur dioxide, should be reduced from the North Valmy coal-fired power plant in order to further reduce haze in the region, including in the Jarbidge Wilderness Area. This means that I will continue to observe offensive amounts of air pollution from the smokestacks of this power plant as I continue to visit Nevada and observe the North Valmy power plant.

15. EPA's failure to ensure the State of Nevada reduce sulfur dioxide emissions from the Reid Gardner power plant and reduced nitrogen oxides and sulfur dioxides from the North Valmy power plant distresses me. It is disconcerting to observe air pollution coming from the smokestacks of these power plants. More importantly, I am worried that the air pollution will negatively affect my health as I continue to visit the areas where these power plants are located.


16. If EPA were to ensure the State of Nevada reduced haze-forming pollution from the Reid Gardner and North Valmy power plants, the harms I have experienced and will continue to experience will be diminished. If sulfur dioxide emissions were reduced from the Reid Gardner power plant, haze pollution would be reduced in Grand Canyon and Zion National Parks. I would enjoy my visits to these wild places more if haze pollution was reduced. If haze forming emissions were reduced from the North Valmy power plant, I would be less offended by the sight of air pollution from this power plant and be much less worried about the impacts of this power plant to my health.

17. Overall, if EPA were required to comply with the Clean Air Act, the air would get cleaner in Nevada and in surrounding landscapes. This would make my visits to Nevada and to areas like Grand Canyon and Zion much more

enjoyable knowing that the air I am breathing is as clean and healthy as it should be.

Pursuant to 28 U.S.C. § 1746, I declare, under penalty of perjury, that the foregoing is true and correct.

Executed this 5th day of September, 2012 in Durango, Colorado.

  
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Veronica Egan