



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R07-OAR-2024-0313; FRL-12096-02-R7]**

**Air Plan Approval; IA; Regional Haze State Implementation Plan  
for the Second Implementation Period**

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

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is taking final action to approve the Regional Haze State Implementation Plan (SIP) for the State of Iowa as satisfying applicable requirements under the Clean Air Act (CAA) and EPA's Regional Haze Rule (RHR) for the program's second implementation period. Iowa's SIP submission addresses the requirement that states must periodically revise their long-term strategies for making reasonable progress towards the national goal of preventing any future, and remedying any existing, anthropogenic impairment of visibility, including regional haze, in mandatory Class I Federal areas. The SIP submission also addresses other applicable requirements for the second implementation period of the regional haze program. The EPA is taking this action pursuant to the CAA.

**DATES:** This final rule is effective on **[insert date 30 days after date of publication in the Federal Register]**.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-R07-OAR-2024-0313. All documents in the docket are listed on the <https://www.regulations.gov> web site.

Although listed in the index, some information is not publicly available, i.e., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available through <https://www.regulations.gov> or please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section for additional information.

**FOR FURTHER INFORMATION CONTACT:** Bethany Olson, U.S.

Environmental Protection Agency, Region 7 Office, Air Permitting and Planning Branch, 11201 Renner Boulevard, Lenexa, Kansas 66219; telephone number: (913) 551-7905; email address: [olson.bethany@epa.gov](mailto:olson.bethany@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document "we," "us," and "our" refer to EPA.

## **Table of Contents**

- I. What is Being Addressed in this Document?
- II. Background
- III. EPA's Response to Comments
- IV. What Action is EPA Taking?
- V. Incorporation by Reference
- VI. Statutory and Executive Order Reviews

### **I. What is Being Addressed in this Document?**

The EPA is approving Iowa's Regional Haze plan for the second planning period and adding three Iowa source-specific permits into the Iowa SIP submitted on August 15, 2023. The Iowa Department of Natural Resources (IDNR) submitted the plan to satisfy the regional haze program requirements pursuant to CAA

sections 169A and 169B and 40 Code of Federal Regulations (CFR) 51.308. As required by section 169A of the CAA, the federal RHR calls for state and federal agencies to work together to improve visibility in 156 national parks and wilderness areas. The rule requires the states, in coordination with the EPA, the National Parks Service (NPS), the U.S. Fish and Wildlife Service (FWS), the U.S. Forest Service (USFS), and other interested parties, to develop and implement air quality protection plans to reduce the pollution that causes visibility impairment. Visibility impairing pollutants include fine and coarse particulate matter (PM) (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust) and their precursors (e.g., sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and, in some cases, volatile organic compounds (VOC) and ammonia (NH<sub>3</sub>)). As discussed in further detail in our Notice of Proposed Rulemaking (NPRM) the EPA finds that Iowa has submitted a Regional Haze plan that meets the Regional Haze requirements for the second planning period. The State's submission and NPRM can be found in the docket for this action.

## **II. Background**

On August 15, 2023, IDNR submitted a revision to the Iowa SIP to address its regional haze obligations for the second implementation period, which runs through 2028. The long-term strategy for Iowa's Regional Haze plan includes emission limits contained in three air construction permits issued to three sources owned by MidAmerican Energy Company (MidAmerican) and

submitted by Iowa for incorporation into the SIP in 40 CFR 52.820(d) *EPA approved state source-specific requirements*. Louisa Generating Station (LGS) permit #05-A-031-P6 contains a SO<sub>2</sub> emission limit of 800 lb/hr based on a 30-day rolling average for the main boiler. Walter Scott Jr. Energy Center unit 3 (WSEC-3) permit #75-A-357-P9 contains a SO<sub>2</sub> emission limit of 770 lb/hr based on a 30-day rolling average. Walter Scott Jr. Energy Center unit 4 (WSEC-4) permit #03-A-425-P4 contains a SO<sub>2</sub> emission limit of 0.1 lb/MMBtu and a NO<sub>x</sub> emission limit of 0.07 lb/MMBtu. The state's SIP submission requested that the EPA not act on Condition 11 of the permits for LGS and WSEC-3 nor Condition 6 of the permit for WSEC-4, and accordingly those conditions are not included in this action. The full permits are included in appendix E of the state submission in the docket for this action.

The State's submission met the public notice requirements in accordance with 40 CFR 51.102. The submission also satisfied the completeness criteria of 40 CFR part 51, appendix V. Iowa made its 2023 Regional Haze SIP submission available for public comment from February 13, 2023, through March 16, 2023. IDNR received and responded to public comments and included the comments and responses to those comments in its submission.

On August 2, 2024 (89 FR 63258), the EPA published the NPRM proposing approval of Iowa's SIP submission as satisfying the regional haze requirements for the second planning period contained in the CAA and 40 CFR 51.308. The EPA is now

determining that the Iowa Regional Haze SIP submission for the second RHR planning period meets the applicable statutory and regulatory requirements in CAA section 169A and 40 CFR 51.308 and is thus approving Iowa's submission into its SIP.

### **III. EPA's Response to Comments**

The public comment period on the EPA's proposed rule opened August 2, 2024, the date of its publication in the *Federal Register* and closed on September 3, 2024. During this period, the EPA received four sets of comments. One set of comments originated from a group of six conservation organizations: the Sierra Club, National Parks Conservation Association, Coalition to Protect America's National Parks, Interfaith Power and Light, Environmental Law and Policy Center, and Iowa Environmental Council (collectively referred to as "the Conservation Groups" throughout this document). A second set of 88 nearly identical comment letters were submitted from Iowa Sierra Club members (collectively referred to as "Sierra Club members" throughout this document). The remaining two sets of comments were submitted from individual organizations. All the public comments are available in the docket for this final action via Docket ID Number EPA-R07-OAR-2024-0313 on the <https://www.regulations.gov> website.

We determined that one comment was not germane to our action, for the following reasons. One commenter expressed opposition to the cultivation of cannabis, asserting general air pollution concerns. The commenter did not provide any tangible

connection to the regional haze requirements or the Iowa submission. The EPA acknowledges the commenter's concerns; however, the comment is outside the scope of this action and does not indicate that the EPA's approval of the SIP submission is inconsistent with the CAA. Oversight of cannabis farms is unrelated to this regional haze action.

In the rest of this section, the EPA has summarized and provided responses to the adverse comments received on the NPRM. EPA has also considered the comments received in support of the NPRM. Having done so, the EPA is finalizing its approval of the Iowa SIP submission for the RHR second planning period.

*Comment 1:* Iowa Sierra Club Members comment that Iowa is not taking adequate steps to control air pollution from the LGS, WSEC-3, WSEC-4, George Neal North (GNN), and George Neal South (GNS) coal plants. The comments state that under the RHR, IDNR must require cost-effective controls at these plants for both SO<sub>2</sub> and NO<sub>x</sub>. The commenters request that the EPA reject Iowa's SIP and promptly issue a strong Federal Implementation Plan (FIP) that will curb haze-causing pollution at its source. The commenters conclude that haze-causing pollutants cause health impacts.

*Response 1:* The EPA disagrees that Iowa has not taken adequate steps to limit haze-causing pollution and that Iowa's second planning period SIP submission must include additional SO<sub>2</sub> and NO<sub>x</sub> controls at LGS, WSEC-3, WSEC-4, GNN, and GNS. The CAA and the RHR require states to evaluate and determine the

emission reduction measures that are necessary to make reasonable progress towards natural visibility conditions in Class I areas by considering the four statutory factors.<sup>1</sup> As long as these determinations are reasonable, states have substantial discretion in making them, and the EPA will not insist on a particular combination of analyses and control measures as a condition of approval. The RHR requires each State to "submit a long-term strategy (LTS) 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 that may be affected by emissions from the State. The LTS must include enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress."<sup>2</sup> As detailed in the NPRM and the State submission, Iowa selected two electric generating units (EGUs) with the largest SO<sub>2</sub> and NO<sub>x</sub> emissions for four-factor analysis: LGS and WSEC-3. As a result of the four-factor analysis conducted for LGS and WSEC-3, Iowa required MidAmerican to optimize the operation of existing scrubber controls and required compliance with new regional haze SO<sub>2</sub> limits by December 31, 2023. The EPA finds that Iowa has satisfied the requirement that states determine the emission reduction measures that are necessary to make reasonable progress by considering the four factors, and the EPA also finds that the operational

---

<sup>1</sup> CAA section 169(g) (1).

<sup>2</sup> 40 CFR 51.308(f) (2).

improvements required by Iowa at LGS and WSEC-3 meet the LTS requirements for the second planning period.

In addition, the EPA has reviewed power sector emissions data collected by EPA's Clean Air Markets Program Division (CAMPD) under 40 CFR part 75. This data is publicly available through the CAMPD Database.<sup>3</sup> Following the 2023 compliance deadline, the 2024 annual SO<sub>2</sub> emissions decreased at LGS and WSEC-3 by a combined total of 11,169 tons, as compared to the 2017-2019 average used as a baseline in Iowa's 2023 SIP.

The commenter correctly notes that haze-causing pollutants cause health impacts. However, as stated in Iowa's submission at section 12.1. *Response to Public Comments*: (1) The purpose of the RHR is to restore natural visibility conditions in Class I areas and not to evaluate health impacts from criteria pollutants in areas outside Class I areas. Implementation of the National Ambient Air Quality Standards (NAAQS) is provided for in section 110 of the CAA; and (2) the EPA and IDNR have stated that the regulatory requirements at 40 CFR 51.308 do not apply to the NAAQS and do not provide for the requirement that states consider ancillary benefits. To further substantiate this position, as IDNR notes, all ambient air quality monitors in Iowa are currently measuring attainment with the NAAQS. As discussed in the NPRM and in this notice of final rulemaking, the EPA evaluated Iowa's SIP submission against the statutory and regulatory regional haze requirements and determined that it

---

<sup>3</sup> <https://campd.epa.gov/data>.

satisfies the requirements. Thus, the EPA is finalizing its approval of the Iowa SIP submission and has no obligation to promulgate a FIP.

*Comment 2:* The Conservation Groups comment that Iowa's cost analyses for MidAmerican's LGS and WSEC-3 include costs and cost assumptions that are inconsistent with EPA's Control Cost Manual. The commenters argue that the EPA must disapprove IDNR's unreasonable use of a firm-specific interest rate until IDNR and MidAmerican present sufficient documentation on the underlying assumptions and costs of the firm-specific interest rate. The Conservation Groups state that because "IDNR fails to provide any documentation supporting MidAmerican's inclusion of AFUDC costs, its weighted cost of capital, or its use of a firm-specific interest rate," the EPA must disapprove the SIP submission for failure to provide proper documentation for its cost analysis and issue a FIP using an interest rate that is supported by the record at the time of the final decision.

*Response 2:* The EPA disagrees with the Conservation Groups' assertions that the 7.862 percent firm-specific interest rate is unreasonable, and that MidAmerican did not provide sufficient justification. IDNR used the tools provided and recommended by the EPA for calculating control cost estimates at LGS and WSEC-3. In accordance with EPA's Air Pollution Control Cost Manual (Control Cost Manual)<sup>4</sup>, IDNR requested that MidAmerican provide

---

<sup>4</sup> EPA's "Air Pollution Control Cost Manual" is available at: <https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution>.

additional justification to support the use of a firm-specific interest rate, and that information is included in appendix D-3 of the state submission. Furthermore, at the time of the state public comment period, the prime lending rate was 7.75 percent. In section 12.1. *Response to Public Comments*, IDNR states, "differences in costs calculations between those based on a 7.75 percent bank prime rate versus those using the justified firm-specific interest rate of 7.862 percent are inconsequential." Finally, we note that the bank prime lending rate since the SIP submission by IDNR has been as high as 8.50 percent. The EPA does not agree that IDNR's use of a 7.862 percent interest rate is unreasonable and warrants issuance of a FIP because Iowa's cost analyses satisfied the requirements of 40 CFR 51.308(f)(2).

*Comment 3:* The Conservation Groups' comment that Iowa's cost-effective analyses failed to justify the truncated 20-year useful life of SO<sub>2</sub> and NO<sub>x</sub> control options at LGS and WSEC-3 and that such a justification is required by the RHR. The comment asserts that unjustifiably shorter useful life assumptions skew the cost analysis, making post-combustion controls seem less cost effective. The commenters conclude that because of IDNR's failure to provide a reasonable explanation for the remaining useful life, the EPA must disapprove the SIP submission and issue a FIP that assumes the typical 30-year useful life for the control equipment.

*Response 3:* The EPA disagrees that Iowa's cost analyses are inconsistent with the Control Cost Manual or the RHR. For NO<sub>x</sub> controls, Iowa's cost analysis for selective catalytic reduction (SCR) used 30 years for the equipment life, consistent with the Control Cost Manual and the commenter's assertion that 30 years is the appropriate equipment life. Iowa's cost analysis for selective non-catalytic reduction (SNCR) used 20 years for equipment life, consistent with the Control Cost Manual.

For SO<sub>2</sub> controls, Iowa concurred with the MidAmerican cost analyses' useful life estimates. The MidAmerican cost analyses used a 20-year useful life to evaluate operational improvements to the existing dry flue gas desulfurization (FGD) systems and new wet FGD systems. The Control Cost Manual specifies that EPA has generally used equipment life estimates of 20 to 30 years for analyses using acid gas scrubbers, although these estimates are recognized to be low for many installations.<sup>5</sup> Though EPA generally recommends a 30-year equipment life for acid gas scrubbers, Iowa's use of a 20-year useful life in its 2023 SIP is not inconsistent with the Control Cost Manual. While we acknowledge that changing the useful life variable to 30 years in these analyses may result in a higher cost-effectiveness of both wet and dry FGD systems, as demonstrated in the Conservation Groups' submitted analysis, we do not agree that assuming a useful life of 30 years would impact the final control decision, due to the very high capital costs of

---

<sup>5</sup> See EPA Control Cost Manual, section 5, Chapter 1 (Wet and Dry Scrubbers for Acid Gas Control), at 1-8.

installing new wet FGD systems at LGS and WSEC-3 as compared to improved operation of the existing dry FGD systems, which would incur no equipment related capital costs. Furthermore, Iowa's useful life assumptions did not prevent Iowa from requiring new control measures for those sources. Iowa's 2023 Regional Haze SIP includes cost-effective control measures that require MidAmerican to optimize the operation of existing dry scrubber controls at LGS and WSEC-3, which will reduce actual SO<sub>2</sub> emissions by a combined total of approximately 9,700 tons per year compared to the 2017-2019 emissions baseline. Iowa concluded that these improvements were necessary to make reasonable progress towards natural visibility conditions in linked Class I areas. As discussed in the NPRM and in this notice of final rulemaking, the EPA has evaluated Iowa's SIP submission against the applicable statutory and regulatory regional haze requirements. We find the submission satisfies the regional haze requirements of 40 CFR 51.308(f)(2)(i) regarding both the sources selected for evaluation and the emission reduction measures necessary to make reasonable progress during the second implementation period.

*Comment 4:* The Conservation Groups' comment that Iowa's cost analysis failed to evaluate the highest SO<sub>2</sub> removal efficiency that could be achieved with upgrades to existing dry FGD systems and new wet FGD systems at LGS and WSEC-3. The commenters conclude that the EPA must disapprove Iowa's SO<sub>2</sub> four-factor analysis for LGS and WSEC-3 and promulgate a FIP

requiring dry FGD system upgrades to achieve at least 95% control, with a floor of 0.05 lb/MMBtu, and include an evaluation of and requirements for a wet FGD retrofit to achieve an annual average SO<sub>2</sub> rate of 0.03 lb/MMBtu at LGS and at WSEC-3. The Commenters' specific comments on this topic are addressed in Comments 4.a through 4.c below.

*Comment 4.a:* The commenters state that "data shows that several coal-fired power plant units with wet scrubbers achieve SO<sub>2</sub> rates lower than 0.04 lb/MMBtu on an annual basis," and the analysis must evaluate the wet FGD retrofit to achieve an annual average SO<sub>2</sub> rate of 0.03 lb/MMBtu at LGS and WSEC-3. The commenters state that "the EPA has long indicated that states must evaluate controls at their most efficient levels."

*Response 4.a:* The EPA disagrees with the Conservation Groups' assertion that the EPA must promulgate a FIP requiring wet FGD retrofit to achieve an annual average SO<sub>2</sub> rate of 0.03 lb/MMBtu at LGS and WSEC-3. The EPA notes that the quote in the comment summary stating "the EPA has long indicated that states must evaluate controls at their most efficient levels" is a direct quote from the Conservation Groups' comment letter. The commenters cite to 70 FR 39166 (July 6, 2005) to support the quoted language. The cited *Federal Register* document is titled Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations. The published final rule makes changes to the 1999 iteration of the RHR after it was challenged in the DC Circuit, including "requir[ing] the States

to consider the degree of visibility improvement resulting from a source's installation and operation of retrofit technology, along with the other statutory factors set out in CAA section 169A(g)(2), when making a BART determination."<sup>6</sup> Notably, this rulemaking pertained to 40 CFR 51.308(e), which contains the BART guidelines and requirements for the first implementation plans due under the regional haze program. Therefore, this 2005 preamble is not a useful resource for interpreting non-BART related requirements for the second planning period set forth in 40 CFR 51.308(f).

Furthermore, the cited page of the *Federal Register* document does not support the Conservation Groups' contention. This page covers step 3 of the BART analysis: evaluation of technically feasible alternatives. In answering the question "how do I evaluate control techniques with a wide range of emission performance levels," the preamble states "[i]t is not [the EPA's] intent to require analysis of each possible level of efficiency for a control technique as such an analysis would result in a large number of options. It is important, however, that in analyzing the technology you take into account the most stringent emission control level that the technology is capable of achieving."<sup>7</sup> This section further advises "[w]hile you must consider the most stringent level as one of the control options, you may consider less stringent levels of control as additional options. This would be useful, particularly, in cases where the

---

<sup>6</sup> 70 FR 39104, 39106 (July 6, 2005).

<sup>7</sup> *Id.* at 39166.

selection of additional options would have widely varying costs and other impacts.”<sup>8</sup>

The BART determinations required by 40 CFR 51.308(e) during the regional haze program’s first planning period are distinct from the reasonable progress determinations required during the second planning period under 40 CFR 51.308(f). The first planning period source-specific BART analysis required states to examine the “best available” system of compliance for eligible sources, while there is no such requirement for the second planning period under the reasonable progress regulations at 40 CFR 51.308(f). Therefore, as the Conservation Groups’ argument that Iowa failed to evaluate the highest SO<sub>2</sub> efficiency that could be achieved with a wet FGD system is based upon the first planning period requirements for BART controls, the EPA does not find it to be compelling.

*Comment 4.b:* For dry FGD systems, the comment asserts MidAmerican evaluated improvements that would achieve an SO<sub>2</sub> rate of 0.10 lb/MMBtu, which reflects only a 78 percent control efficiency. The commenters state that Iowa must evaluate FGD upgrades to meet a 90 percent reduction level or an annual average emission rate of 0.05 lb/MMBtu at both LGS and WSEC-3 and must also impose an SO<sub>2</sub> emission limit of 0.06 lb/MMBtu on a 30-day rolling average basis at both units. The Conservation Groups argue that the Control Cost Manual indicates that in multiple locations, SDA systems are capable of meeting 95

---

<sup>8</sup> *Id.*

percent control efficiency while treating coal with sulfur content up to three percent. The commenters point to the EPA's December 28, 2011, first planning period Oklahoma FIP (76 FR 81728), stating that the EPA indicated that underperforming SDA scrubbers should be evaluated at 95 percent control and a floor of a 0.06 lb/MMBtu emission rate.

*Response 4.b:* The EPA disagrees with the assertion that Iowa must evaluate dry FGD system upgrades to achieve at least 90 percent control efficiency or impose an SO<sub>2</sub> emission limit of 0.06 lb/MMBtu. The commenters point to the Oklahoma FIP, which was promulgated under the first planning period, and the specific citation from the comment letter, which is referring to that planning period's BART guidelines.<sup>9</sup> As outlined above in Response 4.a, the requirements for the second planning period differ from the first planning period. As the Conservation Groups' argument that Iowa failed to evaluate improvements to the dry FGD systems at LGS and WSEC-3 is again based on first planning period requirements for BART controls rather than second planning period requirements set forth at 40 CFR 51.308(f), the EPA does not find it to be compelling.

*Comment 4.c:* Finally, the comment argues that IDNR's cost-effectiveness values for new wet FGD systems at LGS and WSEC-3 were unreasonable in that they failed to evaluate the top level SO<sub>2</sub> removal efficiency that is achievable. The comment asserts

---

<sup>9</sup> 76 FR 81,728,81,742 (Dec. 28, 2011).

that once the analysis is corrected, the controls should be even more cost-effective.

*Response 4.c:* Iowa's control cost analysis evaluated new wet FGD systems at LGS and WSEC-3 to achieve an emission limit of 0.06 lb/MMBtu and found the costs to be over \$6,000/ton at LGS and \$8,000/ton at WSEC-3. However, consistent with 40 CFR 51.308(f)(2)(i), IDNR also considered the other factors (i.e., the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment). As detailed in the NPRM and the State submission, the new wet FGD systems required a longer time necessary for compliance and presented additional energy and nonair quality environmental impacts when compared to the improved operation of the existing dry FGD systems. We acknowledge that evaluating the control at a lower emission rate may result in a slightly higher cost-effectiveness of the wet FGD system, as shown in the Conversation Groups' submitted analysis. However, the EPA does not agree that evaluating the wet FGD control systems at a rate of 0.03 lb/MMBtu, compared to 0.06 lb/MMBtu, as used by IDNR, would significantly impact the control decisions made through the State's complete four-factor analysis, due to consideration of the other factors and inarguably higher cost effectiveness of improved operation of the existing dry FGD systems. We therefore find that Iowa's analysis was reasonable and resulted in an LTS that achieves

reasonable progress for the second planning period. Iowa has satisfied the requirements of 40 CFR 51.308(f), and the EPA approves Iowa's SIP submission.

*Comment 5:* The Conservation Groups comment that it appears that the dry FGD system at LGS is equipped with a scrubber bypass, and the EPA must evaluate the elimination of the bypass during the four-factor analysis when promulgating a FIP. The Conservation Groups assert that IDNR improperly skewed the analysis to make it appear that the facility is achieving a greater emission reduction than it actually is and effectively ignores cost-effective pollution reductions.

*Response 5:* We disagree with this comment. The EPA was unable to find any data to support this assertion. The Environmental Groups referenced the attached report, *Utility FGD Design Trends*, which is available in the docket for this action, that cited data collected by the U.S. Energy Information Administration (EIA) for 2008 (EIA-860 data Schedules 6-G & 6-H).<sup>10</sup> However, as IDNR stated in section 12.1 *Response to Public Comments*, EIA-860 data does not support this assertion. The EIA data for 2023 and previous years shows LGS is not equipped with FGD bypass.<sup>11</sup> Furthermore, IDNR stated in section 12.1, "the emission limits apply at all times, thus the presence or absence of FGD bypass is irrelevant."

---

<sup>10</sup> See Weilert, Carl and Emily Meyer, Burns & McDonnell, *Utility FGD Design Trends*.

<sup>11</sup> See <https://www.eia.gov/electricity/data/eia860/>.

*Comment 6:* The Conservation Groups assert that a new wet FGD system should also be considered a cost-effective option at WSEC-3 and LGS. The commenters' analysis asserts a cost-effectiveness of \$4,907/ton at WSEC-3, which the comment argues is below IDNR's threshold and within the range of the EPA's determinations in the first planning period, and \$6,968/ton at LGS, which is below the cost effectiveness thresholds used by Colorado, Nevada, and New Mexico. Furthermore, the comment argues that "IDNR was wrong to suggest that there is inherent flexibility on costs, as Congress clearly set requirements for national consistency throughout the country in implementing the Act's programs."

*Response 6:* The EPA acknowledges that the cost effectiveness of a new wet FGD system at WSEC-3 and LGS may be within the range of costs of controls implemented by other states in their LTS. However, the EPA disagrees that specific controls must be required for Iowa's SIP to meet the second planning period's criteria. The RHR does not require a specific cost effectiveness threshold to be applied when states consider new control measures. Rather, cost effectiveness is one of four factors to be considered holistically. In this case, IDNR identified technically feasible control options and reasonably evaluated the cost effectiveness of controls for both sources. Whether the cost effectiveness of a new wet FGD system is \$6,160/ton at WSEC-3 and \$8,920/ton at LGS, as asserted by the MidAmerican analysis, or \$4,907/ton at WSEC-3 and \$6,968/ton at

LGS, as estimated by the Conservation Groups, the EPA does not see a compelling basis to dispute IDNR's final control determination. In comparison, MidAmerican estimated the cost of the improved operation of existing dry FGD systems to be less than \$300/ton at each facility.

Iowa concluded that the optimization of existing dry scrubbers at LGS and WSEC-3 was necessary to make reasonable progress towards natural visibility conditions in linked Class I areas and required MidAmerican to implement these control measures in its 2023 Regional Haze SIP. The EPA evaluated Iowa's SIP submission against the applicable statutory and regulatory regional haze requirements and finds the submission satisfies the regional haze requirements of 40 CFR 51.308(f)(2)(i).

*Comment 7:* The Conservation Groups comment that Iowa's control cost analysis understated the NO<sub>x</sub> removal efficiency of SCR and SNCR systems at LGS and WSEC-3 and thus requires correction. The commenters state that MidAmerican evaluated SCR to achieve a NO<sub>x</sub> rate of 0.05 lb/MMBtu, reflecting 73 percent control across the SCR system at LGS and 77.6 percent across the SCR system for WSEC-3. The Conservation Groups argue that SCR systems are designed to achieve 90 percent or greater NO<sub>x</sub> control efficiency, resulting in annual average NO<sub>x</sub> emission rates with SCR, along with existing low NO<sub>x</sub> burners and overfire air, as low as 0.04 lb/MMBtu or even lower. The commenters state that MidAmerican also assumed that SNCR at LGS and WSEC-3 would achieve a NO<sub>x</sub> removal efficiency of 15 percent. The commenters

argue that its analysis determined that SNCR at LGS should have an achievable NO<sub>x</sub> removal efficiency of 20.9 percent and an annual NO<sub>x</sub> emission rate of 0.15lb/MMBtu, and SCNR control at WSEC-3 should have an achievable NO<sub>x</sub> removal efficiency of 21.7 percent and an annual NO<sub>x</sub> emission rate of 0.17 lb/MMBtu. The Conservation Groups assert that the EPA must promulgate a FIP that evaluates NO<sub>x</sub> control options at these removal efficiencies.

*Response 7:* The EPA disagrees with the commenters' assertion that we must promulgate a FIP evaluating NO<sub>x</sub> controls that achieve the specified emission rates. As discussed in the response to Comment 4.a, there is no requirement for the state to evaluate control equipment at a specified removal efficiency under the second planning period regulations at 40 CFR 51.308(f). While it is important to consider the most stringent emission control level that the technology is capable of achieving, less stringent levels of control may be considered as well, such as in the case where the control options have varying costs and impacts.

As detailed in the 2023 SIP submission and appendix D-2 of the State submission, IDNR conducted its own assessments of NO<sub>x</sub> controls in which different scenarios were evaluated. In section 12.1 *Response to Public Comments*, Iowa asserted that the cost-effectiveness values for SNCR and SCR presented in the Conservation Groups' analysis are not significantly different than those estimated by the IDNR and, therefore, do not impact Iowa's control decision that neither SNCR nor SCR are reasonable

at this time. Iowa further stated, "The DNR finds that the SNCR and SCR cost-effectiveness values for LGS and WSEC-3 are unreasonable in comparison to the SO<sub>2</sub> control costs and that SO<sub>2</sub> emission reductions from Iowa's EGUs provide greater visibility protections than NO<sub>x</sub> reductions."<sup>12</sup>

The EPA does not agree that evaluating NO<sub>x</sub> controls at increased removal efficiencies would impact the State's control decisions. We find that Iowa's analysis was reasonable and that it resulted in a LTS that achieves reasonable progress for the second planning period.

*Comment 8:* The Conservation Groups comment that MidAmerican's cost-effectiveness analyses show that both SNCR and SCR must be considered cost-effective controls for LGS and WSEC-3, as their implementation costs are within the range of the cost effectiveness thresholds used by Colorado, Nevada, Minnesota, New Mexico, Arizona, and Washington. The comment further asserts that IDNR failed to meaningfully respond to public comments and the FLM's comments regarding cost effectiveness values and the thresholds established by these other states. The commenters conclude that it was unreasonable for Iowa to ignore these comments from the public and FLMs, and the EPA must promulgate a FIP in which the cost effectiveness of SNCR at LGS and of SCR at WSEC-3 are considered to be reasonable.

---

<sup>12</sup> See Iowa's August 15, 2023, submission, at 70.

*Response 8:* The EPA acknowledges that the cost effectiveness of SCR and SNCR at WSEC-3 and LGS may be within the range of costs of controls implemented by other states in their LTS. However, as explained in Response 6, the EPA disagrees that specific controls must be required for reasonable progress. The EPA also disagrees with the commenters' assertion that Iowa did not adequately respond to comments.

The EPA reviews each submission against the applicable requirements of the CAA and RHR. The RHR does not provide a specific cost-effectiveness or emission threshold which States must meet when considering installation or upgrade of emission controls under the four statutory factors. Thresholds used by some states in a reasonable exercise of the discretion afforded by the CAA and RHR do not bind other states, nor do they preclude the EPA from finding other cost effectiveness thresholds (or the decision to forgo using a hard threshold) are reasonable.

Additionally, the commenters impart a requirement into the regulations that does not exist by asserting a State must "meaningfully" address the comments received. The commenters incorrectly argue that for a State to adequately respond to public comments, the State must amend the SIP to align with the comments. This is incorrect. But it is also irrelevant here. The EPA's role in this process is to review whether SIP submissions meet minimum federal law standards for approvability. As set forth in 40 CFR 51.102, "States must provide notice, provide the

opportunity to submit written comments and allow the public the opportunity to request a public hearing." As detailed below in Response 24, IDNR provided public notice, provided the opportunity for the public to submit written comments and held a public hearing on the SIP revision. It received comments and responded to those comments. Therefore, Iowa satisfied the requirements of 40 CFR 51.102.

Finally, the EPA disagrees with the commenters' argument regarding IDNR's response to the FLM's comments during the State and FLM Coordination. The requirements for this Coordination are set forth in 40 CFR 51.308(i). The only requirement regarding comments by FLMs states that Iowa "must include a description of how it addressed any comments provided by the [FLMs]" in developing its plan revision.<sup>13</sup> In the NPRM, the EPA discussed the informal and formal consultations IDNR conducted with FLMs. Furthermore, the EPA stated "Iowa responded to the FLM comments and included the responses in section 11.5 of its submission to EPA and their public notice, in accordance with the requirements in CAA section 169A(d) and § 51.308(i) (3)."<sup>14</sup> The commenters did not provide any citation to the CAA or the RHR to support its assertion that a State is required to "incorporate into the SIP the concerns of the agencies responsible for managing the Class I resources impacted by pollution from the state." The EPA disagrees with the commenters about what is required during the State and FLM consultations and reiterates its conclusion that

---

<sup>13</sup> 40 CFR 51.308(i) (3).

<sup>14</sup> 89 FR 63258, 63276 (Aug. 2, 2024).

Iowa has satisfied the requirements for consultation as laid out in the CAA and the RHR.

*Comment 9:* The Conservation Groups comment that the EPA must disapprove Iowa's four-factor analysis because IDNR did not evaluate potential improvements or optimization to existing control equipment at WSEC-4. The Conservation Groups assert the EPA cannot approve IDNR's analysis of emission reductions at WSEC-4 because there are readily available, cost-effective measures that could be carried out at the unit to achieve additional SO<sub>2</sub> reductions, including optimizing the efficiency of the dry FGD scrubber to achieve an annual emission rate of 0.05 lb/MMBtu. Similarly, the commenters argue that IDNR's failure to evaluate potential upgrades to the SCR system at WSEC-4 was arbitrary because the Conservation Groups' analysis demonstrated the ability for the unit to meet a NO<sub>x</sub> emission limit of 0.04 lbs/MMBtu for months at a time. The Conservation Groups conclude that the EPA must promulgate a FIP that evaluates cost-effective improvements to the SCR system and requires WSEC-4 to meet an annual SO<sub>2</sub> emission rate of 0.05 lb/MMBtu.

*Response 9:* The EPA disagrees with the Conservation Groups' comment that a four-factor analysis is required for WSEC-4. Iowa's reliance on already-effective controls in lieu of four-factor analyses for WSEC-4 is not inconsistent with the CAA legislative history or EPA's interpretation and implementation of the CAA's regional haze requirements.

The EPA stated in the NPRM that Congress determined that “a visibility protection program is needed in addition to the [Clean Air Act]’s National Ambient Air Quality Standards [NAAQS] and Prevention of Significant Deterioration programs, as further emission reductions may be necessary to adequately protect visibility in Class I areas throughout the country.”<sup>15</sup> This statement does not say that Congress determined that every State must analyze the four factors for all sources, or for sources that are already well controlled. Further, the EPA specified that further emissions reductions “may be” necessary, which recognizes that additional reductions will not always be necessary, depending on the effectiveness of other existing programs. The preamble to the 2017 RHR states, “...we expect states to exercise reasoned judgment when choosing which sources, groups of sources or source categories to analyze.”<sup>16</sup>

The EPA disagrees that “IDNR arbitrarily concludes that no further control analysis is necessary due to WSEC Unit 4’s twenty-year-old BACT determination,” as the commenters argue. Instead, Iowa evaluated current control measures at WSEC-4, including applicable facility permits and actual emission rates, against current information in the EPA’s RACT/BACT/LAER Clearinghouse and demonstrated that the high level of control already required makes it reasonable to conclude that a full four-factor analysis would likely result in the conclusion that no further controls are necessary. The State provided a

---

<sup>15</sup> 89 FR 63258, 63260 (citing H.R. Rep No. 95-294 at 205).

<sup>16</sup> 82 FR 3078, 3088 (Jan. 10, 2017).

description of this analysis in section 5.3.1 of the submittal.<sup>17</sup>

We find that Iowa's analysis was reasonable.

*Comment 10:* The Conservation Groups assert that Iowa's consideration of visibility benefits was unreasonable. The commenters assert that neither the CAA nor the RHR lists visibility improvement as a fifth factor in the four-factor analysis and that the EPA has made clear that, for the second planning period, "a state should not use visibility to summarily dismiss cost-effective potential controls." Here, they assert that Iowa wrongly rejected nearly all cost-effective controls based on visibility as an additional factor. The Conservation Groups also state there are multiple flaws with IDNR's visibility analysis. They therefore contend that the EPA's approval of IDNR's visibility benefits analysis is unreasonable, arbitrary, and capricious, and that the EPA must expressly disapprove IDNR's consideration of visibility impacts. The Commenters' specific comments on this topic are addressed in Comments 10.a and 10.b below.

*Comment 10.a:* The Commenters argue that IDNR provides no regulatory or statutory basis for applying a multi-step approach that compared relative sulfate impacts to relative nitrate impacts, resulting in the selection of controls for SO<sub>2</sub> emissions. The Commenters state that IDNR's approach to visibility does not comport with the examples of visibility considerations previously provided by EPA. Further, commenters

---

<sup>17</sup> See Iowa August 15, 2023, submission at 32 - 33.

note, IDNR considered visibility impacts on the most impaired days, rather than the maximum daily visibility impact on all days. The comment argues that IDNR did not explain how its visibility analysis complies with the RHR and the requirement to select sources based upon a four-factor analysis.

*Response 10.a:* The EPA disagrees that Iowa's visibility benefits analysis in the August 2023 SIP was inconsistent with the CAA or the RHR. The EPA interprets the CAA and the RHR to allow a State reasonable discretion to consider the anticipated visibility benefits of an emission control measure, along with the other factors, when determining whether the measure is necessary to make reasonable progress. The CAA is silent as to whether States or the EPA may consider additional factors in addition to the four statutory factors.<sup>18</sup> In our Response to Comments on the 2017 RHR, the EPA noted that the RHR "neither requires nor prohibits states from considering visibility when making reasonable progress determinations. . . .However, a state that elects to consider an additional factor such as visibility benefit must consider it in a reasonable way that does not undermine or nullify the role of the four statutory factors in determining what controls are necessary to make reasonable progress." <sup>19</sup>

---

<sup>18</sup> See 42 U.S.C. 7491(g)(1).

<sup>19</sup> Protection of Visibility: Amendments to Requirements for State Plans 82 FR 3078 (Jan. 10, 2017); Response to Comments on Protection of Visibility: Amendments to Requirements for State Plans; Proposed Rule at 186. The EPA has approved or proposed approval for the following SIP submissions in which States considered visibility in a reasonable way: Air Plan Approval; OR; Regional Haze Plan for the Second Implementation Period, 89 FR 81361 (Oct. 8, 2024); Air Plan Approval; Minnesota; Second Period Regional Haze Plan, 89 FR

Iowa performed its visibility analysis by apportioning the State's total modeled anthropogenic visibility impairment to LGS and WSEC on the 20% most impaired days at the linked Class I areas.<sup>20</sup> In doing so, the State made several conservative assumptions that resulted in greater estimated sulfate and nitrate impacts from these two sources.<sup>21</sup> For instance, the State's maximum sulfate and nitrate impacts on all linked Class I areas were selected as the basis for the analysis. In addition, the LGS and WSEC sources were assumed to emit the entirety of Iowa's EGU emissions when calculating the factors for allocating total anthropogenic visibility impairment to these two sources.<sup>22</sup>

Based on this analysis, Iowa estimates that sulfate impacts to visibility in the linked Class I areas are 4.4 times greater than nitrate impacts for both LGS and WSEC.<sup>23</sup> Iowa used this result to inform its selection of cost-effective SO<sub>2</sub> controls over the NO<sub>x</sub> control options that were identified using the four statutory factors for LGS and WSEC. Contrary to the Commenters' assertion that Iowa "ignored" NO<sub>x</sub> controls because they were more expensive than SO<sub>2</sub> controls, Iowa's application of data and modeling showing that SO<sub>2</sub> and not NO<sub>x</sub> is the dominant visibility impairing pollutant, and that information led Iowa to select SO<sub>2</sub>

---

56827 (July 11, 2024); and Air Plan Approval; Ohio; Regional Haze Plan for the Second Implementation Period, 89 FR 71124 (Aug. 30, 2024).

<sup>20</sup> See Iowa August 15, 2023, submission at 15.

<sup>21</sup> *Id.*

<sup>22</sup> See 89 FR 63258, 63270-71 (Aug. 2, 2024).

<sup>23</sup> See Iowa August 15, 2023, submission at 15.

control measures at LGS and WSEC-3. The EPA finds that Iowa's visibility analysis is reasonable and consistent with the CAA.

*Comment 10.b:* The comment argues IDNR unreasonably relied on LADCO's 2028 CAMx PSAT modeling results in selecting only five Class I areas for its visibility benefit analysis when the State was aware there were additional Class I areas of concern documented by the NPS.

*Response 10.b:* The Commenters did not provide a technical basis to support the claim that it was unreasonable for IDNR to rely on LADCO's 2028 CAMx PSAT modeling results for its visibility benefit analysis. IDNR utilized LADCO's 2028 PSAT results to identify linked Class I areas in other States, which is documented in section 2 of the State submission and summarized in the NPRM. IDNR then used the 2028 PSAT results to complete its visibility benefits analysis of the five Class I areas linked to Iowa, as explained in section 5.8 of the State submission and the NPRM. The EPA finds this approach to be reasonable and consistent with the CAA and RHR.

*Comment 11:* The Conservation Groups comment that the EPA must revise its notice and find that Iowa "unlawfully and unreasonably relied on the URP [Uniform Rate of Progress]—a non-statutory factor—to reject controls at LGS and WSEC-3." The comment argues that the EPA failed to evaluate IDNR's URP assertions in the NPRM. Furthermore, the Conservation Groups assert that the EPA's review of those assertions is inconsistent with its review of other actions, namely the EPA's proposed

disapproval of the Missouri SIP on the ground that the "State used the URP argument to avoid controls." The Conservation Groups argue that projected visibility improvements at Class I areas impacted by Iowa's sources and the fact that those areas are below their respective URPs are not valid bases for the EPA to approve Iowa's decision to forgo additional controls at LGS and WSEC-3.

*Response 11:* The EPA disagrees that Iowa relied on the URP to reject controls at LGS and WSEC-3. In evaluating Iowa's control measure determinations, the EPA finds Iowa met all the requirements of 40 CFR 51.308(f)(2) and that Iowa did not rely on the fact that the Class I areas impacted by Iowa sources are below their respective URP glidepaths. Iowa's 2023 SIP states the 2028 projections for the Class I areas using LADCO's 2016 modeling platform are intended to satisfy the requirement at 40 CFR 51.308(f)(2)(iv)(E) that the State must consider the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the LTS.<sup>24</sup>

Additionally, the LADCO modeling data provided by IDNR supported the conclusion that the linked Class I areas are all below their respective glidepaths and, therefore, Iowa was not required to conduct the "robust demonstration" detailed under 40 CFR 51.308(f)(3)(ii)(B). However, IDNR did not rely on that fact to avoid controls; rather the State plan required additional

---

<sup>24</sup> See Iowa August 15, 2023, submission at 48.

control measures at two facilities to further reduce SO<sub>2</sub> emissions and improve visibility in linked Class I areas. The EPA finds that the URP glidepath information provided by IDNR in the SIP submission meets the requirements of the CAA and RHR.

The EPA acknowledges that it recently finalized a change in policy regarding the role of the URP in the agency's review of second planning period regional haze SIPs. However, that policy change is not outcome-determinative in this action. The EPA reviewed Iowa's regional haze SIP submission under its prior review policy and proposed to approve it based on application of that policy. The agency is finalizing that proposed approval in this action. We note that Iowa's regional haze SIP for the second planning period is approvable under both the prior and recently announced policies regarding the role of the URP.

*Comment 12:* The Conservation Groups comment that the EPA must disapprove IDNR's SIP Submission because the permits for LGS and WSEC-3 contain SO<sub>2</sub> limits in units of lb/hour. The commenters state that the EPA must promulgate a FIP that requires emission limits in the permits to be in units of lb/MMBtu. The comment states that, "by imposing a lb/hr SO<sub>2</sub> limit rather than a lb/MMBtu limit, the emission limits fail to require the same level of control over all levels of operation and do not achieve the emissions rate IDNR said they are intended to achieve." The commenters also state the NO<sub>x</sub> and SO<sub>2</sub> emission limits for WSEC-4 are based on lb/MMBtu, and the EPA

must act consistently across a SIP, so the emission limits must be set consistently in terms of lb/MMBtu.

*Response 12:* The EPA disagrees that the emission limits established for regional haze must be in units of lb/MMBtu. Neither the CAA nor RHR prescribes the form that an emission limit must take.

As explained in the SIP submission and the NPRM, WSEC-4 went through BACT review under the Prevention of Significant Deterioration (PSD) program for SO<sub>2</sub> and NO<sub>x</sub> in 2003.<sup>25</sup> The requirements for determining BACT under the PSD program are not the same as the requirements for determining reasonable progress under the regional haze program. Iowa determined that WSEC-4 was already equipped with all feasible control options for SO<sub>2</sub> and NO<sub>x</sub> and included its rationale in the State submission. Iowa incorporated the existing emission limits into the SIP for the purpose of preventing future visibility impairment as a part of its LTS. The fact that the existing BACT emission limits for WSEC-4 are in units of lb/MMBtu does not preclude the State from establishing other emission limits under the regional haze program.

The emission limits are clearly stated in the permits included in appendix E of the State submission. The regional haze limit established for SO<sub>2</sub> in Permit Condition 1c. for LGS is 800 lb/hr, on a 30-day rolling average, and includes a footnote stating the limit is based on 65.6 percent reduction of SO<sub>2</sub>

---

<sup>25</sup> Iowa's August 15, 2023, submission at 29; 89 FR 63258, 63273 (Aug. 2, 2024).

emissions from the baseline years of 2017 to 2019. The regional haze limit established for SO<sub>2</sub> in Permit Condition 1c. for WSEC-3 is 770 lb/hr, on 30-day rolling average, and includes a footnote stating that limit based on 72 percent reduction of SO<sub>2</sub> emissions from the baseline years of 2017 to 2019. The percent reductions in the submitted permits correspond to the levels of control MidAmerican assumed in its four-factor analysis and reflect the emissions reductions in Iowa's LTS for reasonable progress.

The permits for LGS and WSEC-3 required compliance with the regional haze SO<sub>2</sub> limits by December 31, 2023. As described above in Response 1, the actual SO<sub>2</sub> emissions for LGS and WSEC-3 for 2024 are available as reported to the CAMPD database.<sup>26</sup> The actual annual SO<sub>2</sub> emissions at LGS in 2024 is 1,179 tons, which is an 80.2 percent reduction of SO<sub>2</sub> emissions from the baseline years used in Iowa's 2023 SIP (2017-2019 average). The actual annual SO<sub>2</sub> emissions at WSEC-3 for 2024 is 1,644 tons, which is a 79.6 percent reduction of SO<sub>2</sub> emissions from baseline years. These emission reductions resulted in a combined total decrease of 11,169 tons in actual SO<sub>2</sub> emissions in 2024 compared to the baseline years and exceeded the emission reductions estimated by MidAmerican in the four-factor analysis. Therefore, we disagree with commenters' assertion that the emission limits do not achieve the emission rate that IDNR said they are intended to achieve.

---

<sup>26</sup> <https://campd.epa.gov/data>

We also note that the commenters did not raise any specific reason to suggest that the use of a lb/hr limit is inappropriate. Instead, they simply assert that a lb/hr limit does not require the same level of control over all levels of operation and state that the EPA must act consistently across the SIP by requiring all emission limits to be set in unit of lb/MMBtu. The EPA disagrees. While there are regulatory programs where emission limits are typically in the form of lb/MMBtu, such as a BACT analysis under the PSD program, that is not a requirement under the RHR, and a variety of units may be reasonable depending on the circumstances of their use.

Under the specific circumstances present here, the EPA finds that the emission limits Iowa established for regional haze are appropriate and meet the requirements of the CAA and RHR.

*Comment 13:* The Conservation Groups comment that Permit Condition R in the permits for LGS and WSEC-3 "exempts the facilities from meeting the minimum additive injection during periods of boiler start-up" and that this condition allows for uncontrolled excess emissions during startup events. The comment quotes the EPA's proposed partial approval and partial disapproval of Utah's regional haze SIP submission to assert that the minimum additive injection rates have "no defined parameters for the excess emissions that will occur during periods of startup, making the limitation less than continuous." The commenters argue "the permit exemptions mean that emissions

exceeding the normal operational limits under periods of startup would not be considered to violate the emission limitations.”

The commenters conclude that the EPA must disapprove the emission limitations because of the startup exemption provisions.

*Response 13:* The EPA disagrees with the Conservation Groups’ assertion that the emission limits for WSEC-3 and LGS are not continuous, or that Permit Condition 5.R. allows the facilities to exceed the emission limits during startup. The permits for LGS and WSEC-3 contain numerical emission limits that apply at all times, including periods of startup, shutdown, and malfunction (SSM). Permit Condition 1c., footnote 2 in both permits states that the “[l]imit is applicable at all times including periods of Boiler startup, shutdown, and malfunction.” We recognize that Permit Condition 5.R. exempts the Permittee from maintaining the minimum additive injection rate during startup. However, despite the fact that the minimum additive injection rate is not required to be maintained during startup, the facility is still required to comply with the numerical SO<sub>2</sub> lb/hr regional haze emission limitation during all periods of operation, including startup.

SIPs can contain “other control measures, means, or techniques” per CAA 110(a)(2)(A), and such other measures, means, or techniques do not need to meet the CAA's definition of an “emission limitation,” including the requirement that it

apply on a continuous basis.<sup>27</sup> In this case, the permits required that MidAmerican develop minimum additive injection rates “to maintain high SO<sub>2</sub> control efficiencies at all operating loads.”<sup>28</sup> However, the State’s LTS is based on the numerical emission limits that apply at all times. The minimum additive injection rates provide a function that is separate from and supplemental to the numerical permit emission limits.

The permit at issue in the Utah SIP Submission is not analogous to the LGS and WSEC-3 permits because the Utah permit included “an automatic exemption for SSM events that occur when Intermountain power plant is operating prior to its closure.”<sup>29</sup> The permit also contained a provision providing that the emission limitations apply at all times except for periods of SSM or emergency conditions.<sup>30</sup>

Permit Condition 5.R. is not an emission limitation, and the EPA disagrees that our partial disapproval of Utah’s SIP is relevant to the evaluation of Permit Condition 5.R. Accordingly, the EPA is approving the emissions limitations and other control measures in Iowa’s SIP submission.

*Comment 14:* The Conservation Groups comment that the EPA’s assertion that the permits submitted by Iowa serve as the enforceable mechanism is unclear, because Iowa’s intent regarding which permit provisions it wanted incorporated into the SIP was unclear. The comment states that the EPA’s proposal

---

<sup>27</sup> *Environ. Comm. Fl. Elec. Power v. EPA*, 94 F.4th 77, 99 (D.C. Cir. 2024).

<sup>28</sup> Iowa’s August 15, 2023, submission at 40.

<sup>29</sup> 89 FR 67208, 67249 (Aug. 19, 2024).

<sup>30</sup> *Id.*

indicates it intends to include the entire permits in the SIP, with the exception of Condition 11, but IDNR's SIP is unclear as to whether it sought to include Permit Condition 6 regarding Continuous Emissions Monitoring Systems (CEMS) in the SIP.

The commenters argue that if Permit Condition 6.C. is included as part of the SIP, that provision does not serve as the enforceable mechanism for CEMS because it fails to include requirements that the monitors accurately measure the pollutants and stack gas volumetric flow rate for each unit. The comment states that Permit Condition 6.C. "allows for use of methods that are not [included in] 40 CFR part 75, which EPA has generally required in the regional haze program." The comment asserts IDNR's approach allows for just two data points for each 1-hour average, allows for data substitution, and does not require use of a diluent. The comment further states Condition 6.C.(3)(iii) provides that "[i]f the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department." The commenters argue that the EPA is without authority to approve the provision that allows for alternative testing into the SIP.

*Response 14:* The EPA disagrees that Iowa's intent regarding the permits to be incorporated into the SIP is unclear or that the permit conditions are not enforceable. The transmittal letter included with Iowa's 2023 SIP submission states, "The air construction permits are provided in appendix E for adoption

into the SIP, with the exceptions of Condition 11 in permit numbers 05-A-031-P6 and 75-A-357-P9 and Condition 6 in permit 03-A-425-P4." Furthermore, as the commenter noted, the EPA's NPRM proposed to incorporate the entire permits into the SIP with the exceptions of permit Condition 11 for LGS and WSEC-3 and permit Condition 6 for WSEC-4.<sup>31</sup>

Permit Condition 6 in the submitted permits for LGS (permit no. 05-A-031-P6) and WSEC-3 (permit no. 75-A-357-P9) are clearly intended to be incorporated into the SIP and contains the requirements for the SO<sub>2</sub> CEMS. Additionally, the SO<sub>2</sub> limit contained in Permit Condition 1c. Regional Haze Limit has a footnote stating that "Compliance with the limit is based on continuous emissions monitoring as specified in Permit Condition 6." Permit Condition 6.A. requires SO<sub>2</sub> CEMS to meet EPA standards at 40 CFR part 60, appendix B Performance Specifications 2 and 6 and 40 CFR part 60, appendix F. Permit Condition 6.B. requires CEMS for SO<sub>2</sub>, and either O<sub>2</sub> or CO<sub>2</sub> to be operated and the data recorded during all periods of operation. Permit Condition 6.C. includes data requirements.

The commenters' assertion that the permit provision 6.C does not serve as the enforceable mechanism for CEMS is unclear. The permits as a whole are enforceable and serve as the enforceable mechanism for the SO<sub>2</sub> emission limits for regional haze. As stated in permit conditions 4.C. for LGS and WSEC-3, both units are subject to continuous emission monitoring

---

<sup>31</sup> 89 FR 63258, 63272 (August 2, 2024).

requirements at 40 CFR part 75 under the federal Acid Rain program. The emissions data collected through CEMS are electronically submitted to the EPA CAMPD and made publicly available online.<sup>32</sup>

As described in the SIP submittal and the NPRM, appendix E also includes the current permit for WSEC-4 (permit no. 03-A-425-P4) to incorporate its existing SO<sub>2</sub> and NO<sub>x</sub> BACT emission limits into Iowa's SIP.<sup>33</sup> The emission limits are contained in Condition 10.A., and there is a footnote stating compliance with the emission limits shall be demonstrated through the use of CEMS. Conditions 12 and 16 contain the CEMS requirements for that permit. Condition 13 states the unit is subject to monitoring requirements under the Acid Rain program.

The EPA notes that the quote in the comment summary stating that permit Condition 6.C. "allows for use of methods that are not [included in] 40 CFR part 75, which EPA has generally required in the regional haze program" is a direct quote from the Conservation Groups' comment letter. That assertion is inaccurate. There is no requirement at 40 CFR 51.308(f) for second planning period regional haze SIPs to comply with 40 CFR part 75. As explained in response 4.a above, the requirements for the second planning period differ from the first planning period. First planning period requirements at 40 CFR 51.308(e) (2) allow states an option to implement or require participation in an emissions trading program rather than

---

<sup>32</sup> <https://campd.epa.gov/data>

<sup>33</sup> 89 FR 63258, 63272 (August 2, 2024).

requiring sources to implement BART. For first planning period SIPs that include an emissions trading program, there are requirements for monitoring, recordkeeping, and reporting provisions to comply with part 75. There are no such requirements for second planning period SIPs.

Iowa has broad discretion under 40 CFR 51.308(f) to determine appropriate compliance demonstration methodologies. For the hourly SO<sub>2</sub> emission limits, Iowa has proposed that the affected sources operate and maintain a CEMS. The EPA notes that, although it is not a requirement of the regional haze program, the CEMS requirements in the submitted permits adhere closely to the requirements in 40 CFR part 75.

The commenter referenced Permit Condition 6.C.(2) which allows the facility to calculate emissions based on two data points and that the permit does not require the use of a diluent. Regarding the use of two data points, the EPA notes that 40 CFR 75.10(d)(1) allows affected facilities to calculate emissions based on two data points. Permit Condition 6.A. requires O<sub>2</sub> or CO<sub>2</sub> to be monitored and Permit Condition 6.C.(2) requires CO<sub>2</sub> to be used in the calculation demonstrating compliance with the SO<sub>2</sub> emission limit. Permit condition 6.C.(3)(iii) is comparable with the standard missing data procedures for SO<sub>2</sub> at 40 CFR 75.33(b). Although Iowa's approach when monitoring data availability is less than 90 percent is not verbatim with Part 75, the EPA finds the State's approach is reasonable to ensure that the emissions are accurately

calculated during such periods. Furthermore, Iowa SIP-approved regulations at 567 IAC 25.1 contain provisions on testing and sampling of new and existing equipment. As required by 567 IAC 25.1(9)c, "...all stack sampling and associated analytical methods used to evaluate compliance with emission limitations of 567- Chapter 23 or required in a permit issued by the department pursuant to 567-Chapter 22 or 33 shall be conducted using the methodology referenced in this rule."

The EPA did not observe any deficiencies related to the State's proposed compliance demonstration methodology for the hourly SO<sub>2</sub> emission limitations. Due to the requirements to monitor emissions at all periods of operation and the public availability of emissions data, the EPA finds that the submitted permits establish enforceable emission limits in the State's LTS.

*Comment 15:* The Conservation Groups comment that the permit provisions for additive injection monitoring devices are not enforceable because 1) the provisions fail to specify the type of equipment required, leaving it to the source's discretion; and 2) the provisions provide sources with discretion on whether to include recorders with the monitoring devices for the additive injection. The comment concludes that the EPA must promulgate a FIP that 1) requires sources to report the manufacturer's recommendations, instructions, and operating manuals, or the facility-specific operation and maintenance plan and the facility's compliance with the manufacturer's

instructions and manuals, or the facility-specific operation plan; and 2) requires the permit to include the criteria for determining the averaging period for the minimum injection rate.

*Response 15:* The NPRM does not include discussion of the additive injection monitoring devices because, for regional haze purposes, the SO<sub>2</sub> limits in the permits satisfy the LTS requirement to include enforceable emissions limitations at 40 CFR 51.308(f)(2). The established additive injection rates are not the direct compliance demonstration methodology for the federally enforceable emission limits that MidAmerican must meet at LGS and WSEC-3. The SO<sub>2</sub> CEMS serve that purpose. Finally, Condition 12.B.(4) requires the owner or operator of any facility required to install a continuous monitoring system to provide quarterly reports to the state.

In the NPRM, the EPA found that Iowa had satisfied the requirements for the LTS in § 51.308(f)(2). Neither the additive injection rate nor the additive injection rate monitoring was necessary to make that determination, and there is no reason for the EPA to disapprove the permit conditions. The EPA finds the emission limits are enforceable and is therefore approving them in this action.

*Comment 16:* The Conservation Groups comment that Iowa's regional haze permit provisions in Condition 5 subsections P, Q, and R do not contain adequate reporting requirements. The commenters assert that there are no requirements for the facility to report the following: 1) CEMS monitoring data, 2)

completion date of the Lime Spray Dryer enhancements, 3) records of enhancements, 4) information regarding the additive injection rate to the LGS Lime Spray Dryer, 5) information regarding the averaging period (if applicable), and 6) corrective actions taken regarding the additive injection rate. The comment concludes that the EPA must disapprove the regional haze emission limitations because they fail to contain reporting provisions necessary for enforcement and include those provisions in a FIP.

*Response 16:* The EPA disagrees that the regional haze emission limitations do not contain reporting necessary for enforcement and notes the Conservation Groups' assertion that the permit does not require reporting is inaccurate. Permit Condition 1c. of the permits incorporated into the SIP contain SO<sub>2</sub> emission limits of 800 lb/hr at LGS and 770 lb/hr at WSEC-3 for regional haze, as detailed in Iowa's LTS. As stated in Condition 1c., compliance with the SO<sub>2</sub> limits is based on CEMS data, as specified in Permit Condition 6. Permit Condition 6.B. requires the data to be recorded during all periods of operation including period of startup, shutdown, malfunction, or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments. Permit condition 12.B.(3) requires reports on the operation of the emission units or control equipment outside of the operating parameters specified in Permit Condition 5 in accordance with the schedule set forth in 567 IAC 24.1. Permit Condition 12.B.(4) requires quarterly

CEMS reports, and 12.C. requires all data, records, reports, documentation, construction plans, and calculations to be maintained.

As stated above, and in Permit Condition 4.C., both facilities are subject to CEMS requirements at 40 CFR part 75 under the Acid Rain program. The emissions data collected through CEMs are electronically submitted to the EPA Clean Air Markets Program Data and made publicly available online. Furthermore, both facilities are required to maintain a Title V Operating Permit. The Title V Operating permit requires the permittee to submit semi-annual monitoring reports and annual compliance certifications.

The federally enforceable emission limits in Permit Condition 1c. are the basis of Iowa's LTS for regional haze. The operating requirements in Condition 5 subsections P, Q, and R do not impact the federally enforceable emission limits that MidAmerican must meet at LGS and WSEC-3, which apply at all times. In the NPRM, the EPA found that Iowa had satisfied the requirements for the LTS in § 51.308(f)(2), including the requirement to establish enforceable emission limitations. The EPA finds the emission limits are enforceable and is therefore approving them in this action.

*Comment 17:* The Conservation Groups comment that the conditions of the permits fail to meet public notice and comment requirements because the minimum additive injection rate and averaging period for the minimum injection rate were determined

through a required SO<sub>2</sub> emissions study after the permit was issued. The Conservation Groups argue that "EPA cannot approve a SIP that allows a state to revise the SIP without public notice and comment and submitting the revisions to EPA for review and action."

*Response 17:* The EPA disagrees with the Conservation Groups that the permit conditions fail to meet public notice and comment requirements. The EPA further disagrees that we are required to disapprove the SIP based upon these permit conditions. Permit Condition 5.Q. in the Regional Haze Requirements in the permit for LGS specifically states that "[w]ithin 60 operating days after completion of the Lime Spray Dryer FGD (CE1B) enhancements, the owner or operator shall conduct an SO<sub>2</sub> emissions study to determine the minimum additive injection rate to achieve SO<sub>2</sub> reduction of 65.6 percent below the average of 2017-2019 baseline emissions. The minimum additive injection rate shall be determined during varying boiler operating loads." The argument put forth by the Conservation Groups regarding Permit Condition 5.Q. ignores Permit Condition 5.P., which states "The owner or operator shall complete Lime Spray Dryer FGD (CE1B) enhancements to achieve the SO<sub>2</sub> emission limit specified in condition 1c. by December 31, 2023." Condition 1c. sets a regional haze limit for SO<sub>2</sub> of 800 lb/hr, and the footnote to the limit states it is "based on 65.6 percent reduction of SO<sub>2</sub> emissions from the baseline years of 2017 to 2019."

The provisions for WSEC-3 are identical, except Permit Condition 1c. sets the regional haze SO<sub>2</sub> limit at 770 lb/hr. In reading together Permit Conditions 1c., 5.P., and 5.Q., MidAmerican is required to meet the 800 lb/hr SO<sub>2</sub> limit at LGS, which is a 65.6 percent reduction of SO<sub>2</sub> emissions from the baseline years of 2017 to 2019, and the 770 lb/hr limit at WSEC-3, which is a 72 percent reduction of SO<sub>2</sub> emissions from the baseline years of 2017 to 2019.

Furthermore, Permit Condition 5.R. requires MidAmerican to "maintain the Lime Spray Dryer FGD (CE1B) minimum additive injection rate at the rates determined during the SO<sub>2</sub> emissions study at the corresponding boiler loads."

As stated in the NPRM, the construction permits were modified to implement the operational improvements at the units and establish permanent emission limits for Iowa's regional haze LTS.<sup>34</sup> 40 CFR 51.308(f)(2) requires each state to submit a LTS with its periodic revision of the SIP for regional haze. The LTS "must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress".<sup>35</sup> The permits for LGS and WSEC-3 establish federally enforceable SO<sub>2</sub> limits for these units and require compliance with the limit by December 31, 2023. The NPRM does not include discussion of the SO<sub>2</sub> emission studies or minimum additive injection rates because, for regional haze purposes, the SO<sub>2</sub> limits in the permits satisfy the LTS requirements in the

---

<sup>34</sup> 89 FR 63258, 63272 (Aug. 2, 2024).

<sup>35</sup> 40 CFR 51.308(f)(2).

RHR. In its SIP submittal, IDNR stated the purpose of the SO<sub>2</sub> emissions studies is to determine the minimum additive injection rate needed by the Lime Spray Dryer FGD to meet this limit and "maintain high SO<sub>2</sub> control efficiencies at all operating loads."<sup>36</sup>

The permit conditions require IDNR to approve the study results, and, as quoted above, require MidAmerican to maintain the additive injection rate established by the study and approved by IDNR. All permit conditions are federally enforceable, as required by 40 CFR 51.308(f)(2). Thus, the study results do not alter the permit conditions or the federally enforceable emission limits for SO<sub>2</sub> but serve to enhance operation of the Lime Spray Dryer FGD.

The commenters cite to section 110(1) of the CAA to support the contention that the study results will result in revision of the SIP without required public participation. This provision of the CAA states "[e]ach revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing."<sup>37</sup> IDNR provided reasonable notice and a public hearing on the proposed SIP revision and followed the requirements regarding public hearings for plan revisions set forth in 40 CFR 51.102.

The opportunity to comment on the permit conditions requiring SO<sub>2</sub> emissions studies to determine the minimum additive injection rate arose twice, during the public notice and comment

---

<sup>36</sup> Iowa's August 15, 2023, submission at 40.

<sup>37</sup> 42 U.S.C. 7410(1).

period required for the construction permit under 567 IAC 33.3(17), and again during the public notice and comment period for IDNR's proposed SIP revision for the regional haze second planning period.

Iowa has not submitted a proposed SIP revision that seeks further revision of the SIP without notice and comment, and the EPA is therefore approving Iowa's SIP revision.

*Comment 18:* The comment states that the Lime Spray Dryer enhancements and the SO<sub>2</sub> emissions study results were due by December 31, 2023, but were not included in the docket for this action. The comment concludes that the EPA must disapprove the conditions in the LGS and WSEC-3 construction permits and issue a FIP containing all the elements necessary for practical enforceability.

*Response 18:* The EPA disagrees with the Conservation Groups' contention that the EPA must disapprove the SIP revision because IDNR did not update their submission to include the emission study results. As previously stated, the LTS must include enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress.<sup>38</sup> The SO<sub>2</sub> emission studies and the established additive injection rates do not impact the federally enforceable emissions limits that MidAmerican must meet at LGS and WSEC-3. In the NPRM, the EPA found that Iowa had satisfied the requirements for the LTS in § 51.308(f)(2). The emission study

---

<sup>38</sup> 40 CFR 51.308(f)(2).

results were not necessary to make that determination, and there is no reason for the EPA to disapprove the permit conditions. Therefore, the EPA is approving the submitted source-specific permits into the Iowa SIP.

*Comment 19:* The Conservation Groups comment that Iowa did not provide a rationale to support the use of a 50 percent contribution threshold for source selection and that the State must evaluate control measures for GNN and GNS. The comment also states that the EPA did not provide justification to support why selecting the two largest sources was sufficient when other States have selected a higher number of sources. The commenters state IDNR's source selection methodology results in the selection of sources that contributed a lower  $EWRT \cdot Q/d$  value at Class I areas than GNN and GNS, and they argue this is an unreasonable outcome. The Conservation Groups conclude that GNN and GNS have relatively high  $SO_2$  emissions, and thus the EPA must find IDNR's source selection methodology to be arbitrary and evaluate FGD upgrades at GNN and GNS in a FIP.

*Response 19:* The EPA disagrees that IDNR's source selection methodology was arbitrary, and that the EPA therefore must promulgate a FIP requiring FGD upgrades at GNN and GNS. As explained in the NPRM, the RHR does not require States to consider evaluating controls for all sources, all source categories, or any or all sources in a particular source category. Rather, States have discretion to choose any source selection methodology or threshold that is reasonable, provided

that the choices they make are reasonably explained.<sup>39</sup> To this end, the RHR requires that a State's SIP submission must include "a description of the criteria it used to determine which sources or groups of sources it evaluated."<sup>40</sup> The technical basis for source selection, which may include methods for quantifying potential visibility impacts such as emissions divided by distance metrics, trajectory analyses, residence time analyses, and/or photochemical modeling, must also be appropriately documented, as required by 40 CFR 51.308(f)(2)(iii).

In this instance, the EPA proposed to find that the information and explanation included in Iowa's SIP submittal indicated that the State developed a methodology and examined a reasonable set of sources, including its two EGUs with the largest SO<sub>2</sub> and NO<sub>x</sub> emissions, and this analysis resulted in emission reduction measures necessary to make reasonable progress for the second implementation period.<sup>41</sup> As such, Iowa satisfied its RHR obligations under 40 CFR 51.308(f)(2) through consideration and reasonable explanation of the methodology by which it selected and analyzed the particular sources that have the largest contribution to visibility impairment in Class I areas. In the NPRM, the EPA stated that the evaluation of these two sources had the potential to meaningfully reduce Iowa's contributions to visibility impairment in Class I areas. The EPA reviewed 2024 CAMPD data to substantiate the relative importance

---

<sup>39</sup> 89 FR 63258, 63263 (August 2, 2024).

<sup>40</sup> 40 CFR 51.308(f)(2)(i).

<sup>41</sup> 89 FR 63258, 63270 (August 2, 2024).

of emission reductions at LGS and WSEC-3 as compared to annual emissions from all EGUs in Iowa, the emission reductions at LGS and WSEC-3 contributed to a decrease in 2024 annual SO<sub>2</sub> emissions for all Iowa EGUs by 71 percent from baseline years.

As stated in the NPRM, the core component of a regional haze SIP submission is a LTS that addresses regional haze in each Class I area within a State's borders and each Class I area that may be affected by emissions from the State. The LTS must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to (f) (2) (i) through (iv). The amount of progress that is "reasonable progress" is based on consideration of the four statutory factors in CAA section 169A(g) (1) in an evaluation of potential control options for sources of visibility impairing pollutants, which is referred to as a "four-factor" analysis. The outcome of that analysis is the emission reduction measures that a particular source or group of sources needs to implement in order for the submitting state to make reasonable progress towards the national visibility goal.<sup>42</sup> Emission reduction measures must be represented by "enforceable emissions limitations, compliance schedules, and other measures" (i.e., any additional compliance tools) in a State's LTS in its SIP.<sup>43</sup>

Therefore, the outcome of a State's source selection process and subsequent evaluation of technically feasible and

---

<sup>42</sup> See 89 FR 63258, 63263 (August 2, 2024); 40 CFR 51.308(f) (2) (i).

<sup>43</sup> See 40 CFR 51.308(f) (2).

cost-effective emissions controls by considering the four factors determines what constitutes the State's LTS for that particular implementation period. IDNR's source selection process and evaluation of technically feasible and cost-effective controls resulted in a LTS that includes the enforceable emissions limitations, compliance schedules and other measures that are necessary to make reasonable progress. Therefore, the EPA finds Iowa's source selection and consideration of the four statutory factors to be reasonable and compliant with the RHR requirements.

*Comment 20:* The Conservation Groups argue that the SO<sub>2</sub> and NO<sub>x</sub> control systems at GNN and GNS are not achieving the levels of control the pollution control systems are designed to achieve. For dry FGD systems at GNN and GNS, the Groups assert an evaluation of controls for these units should presume dry FGD systems are capable of achieving at least 90 percent SO<sub>2</sub> removal. The commenters conducted a cost effectiveness analysis of dry FGD upgrades with the additional use of lime at GNN and GNS and concluded that these upgrades are cost effective and within the range of both cost thresholds other States have used and the costs that IDNR found reasonable for similar SO<sub>2</sub> pollution control upgrades at LGS and WSEC-3.

The commenters also argue that NO<sub>x</sub> controls at GNN and GNS are operating below the standard efficiency rates for SNCR, and the facilities have not had a significant decrease in NO<sub>x</sub> emission rates per MMBtu. The comments conclude that the EPA

needs to promulgate a FIP that fully analyzes SO<sub>2</sub> and NO<sub>x</sub> controls at GNN and GNS through a four-factor analysis.

*Response 20:* The EPA disagrees with the Conservation Groups' conclusion that it must promulgate a FIP and conduct a four-factor analysis to evaluate controls at GNS and GNN. The EPA has responded to the Conservation Groups' comment regarding source selection in Response 20. The Conservation Groups' comments regarding pollution controls at GNS and GNN facilities are beyond the scope of this rulemaking because this rulemaking relates solely to Iowa's regional haze SIP revision, and Iowa did not select those sources for four-factor analysis. Therefore, neither the State nor the EPA has evaluated the efficiency rates of controls at GNS or GNN as a part of this action. As explained above, the RHR does not require States to consider controls for all sources, all source categories, or any or all sources in a particular source category, and the EPA finds that Iowa has satisfied the requirements of 40 CFR 51.308(f)(2)(i) related to evaluating sources.

*Comment 21:* The Conservation Groups comment that the EPA must disapprove Iowa's SIP submission because IDNR failed to meet the CAA and RHR requirements for FLM consultation. The comment argues that IDNR failed to meaningfully consider or incorporate any of the FLM's suggestions into the SIP. Furthermore, because the Conservation Groups assert that the EPA must disapprove Iowa's source selection method and four-factor analysis, they further argue that the FLM consultation was based

on a SIP revision that did not meet the required statutory and regulatory requirements of the CAA and RHR and therefore, must also be disapproved.

*Response 21:* The EPA disagrees that Iowa did not meet the requirements for FLM consultation in CAA 169A(d) and 40 CFR 51.308(i). As described above in Response 8, IDNR met all of the FLM consultation statutory and regulatory requirements.

The requirements for FLM coordination are set forth in CAA 169A(d) and 40 CFR 51.308(i). The only mandate in regard to comments by FLMs states that Iowa "shall include a summary of the conclusions and recommendations of the Federal land managers in the notice to the public"<sup>44</sup> and "must include a description of how it addressed any comments provided by the [FLMs]" in developing its plan revision.<sup>45</sup> The commenters did not provide any citation to the CAA or the RHR to support its assertion that a state is required "to meaningfully consider and incorporate into the SIP the concerns of the agencies responsible for managing the Class I resources impacted by pollution from the state."<sup>46</sup>

Sections 11.3 *Informal FLM Source Selection and LTS Discussions* and 11.4 *Formal FLM Consultation* of Iowa's SIP revision contain documentation of the State's consultation outreach with NPS, FWS, USFS and responses to FLM comments

---

<sup>44</sup> CAA 169A(d).

<sup>45</sup> 40 CFR 51.308(i) (3).

<sup>46</sup> Conservation Organization' Comments on EPA's Proposed Approval of Iowa's Draft State Implementation Plan Regional Haze Second Implementation Period at 28.

during the consultation outreach.<sup>47</sup> This included meeting with FLMs on January 20, 2022, providing an October 11, 2022, draft of the regional haze plan explicitly for the purpose of FLM consultation, and meeting with FLMs on November 3, 2022. Additionally, the NPS met with IDNR again on November 29, 2022, to present their preliminary comments.

Section 11.5 *Response to FLM Comments Received During Formal FLM Consultation* contained Iowa's responses to comments received as part of the October 2022 FLM draft review process.<sup>48</sup> Notably, both FLM comment letters provided generally positive comments on the State's FLM consultation and the SIP's organizational structure, content, analytical techniques, and the SO<sub>2</sub> reductions required from LGS and WSEC-3.<sup>49</sup> In addition to the October 2022 FLM consultation draft process, IDNR provided opportunity for review and comment on the February 2023 public draft. The NPS used this opportunity to provide additional comments which are included in section 12.1.2 *Comments from the National Park Service*, along with IDNR's responses to the comments.<sup>50</sup> Additionally, as described in section 11.1 *Regional Discussions*, Iowa participated in the regional planning organization (RPO), Central States Air Resource Agencies (CenSARA), which included FLM representatives on regular planning calls between 2017 and 2023.<sup>51</sup>

---

<sup>47</sup> Iowa's August 15, 2023, submission at 61-62.

<sup>48</sup> *Id.* at 62 - 65.

<sup>49</sup> *Id.* at appendix F.

<sup>50</sup> *Id.* at 66-67.

<sup>51</sup> *Id.* at 61.

A key element of 40 CFR 51.308(i)(2) is that consultation occur early enough in a State's policy analyses of its LTS so that information and recommendations provided by the FLMs can meaningfully inform a State's decisions on the LTS.<sup>52</sup> 40 CFR 51.308(i)(2) requires the FLM consultation to happen 60 days before the public notice. Consistent with the preamble of the EPA's 2017 RHR, IDNR made a good faith effort to involve the FLMs early in development of the LTS. IDNR used the comments and feedback from the October 11, 2022, to December 9, 2022, FLM consultation draft to inform the final control determinations contained in the draft provided for the public notice and comment period starting on February 13, 2023. Iowa's August 2023 SIP submission also contains a commitment to continuing consultation with FLMs through regional planning activities or by separate calls as requested by FLMs to address 40 CFR 51.308(i)(4).<sup>53</sup>

For the reasons stated above, it is our determination that IDNR adequately conducted FLM consultation and has thus fulfilled the requirements of the CAA and RHR.

*Comment 22:* The Conservation Groups comment that the EPA's approval of Iowa's State-to-State consultation violates the CAA and the RHR because Iowa's four-factor analyses did not meet the requirements of the Act or the RHR. The commenters state that the EPA must issue a FIP that corrects the errors in IDNR's

---

<sup>52</sup> 82 FR 3078, 3116 (Jan. 10, 2017).

<sup>53</sup> Iowa August 15, 2023, submission at 61.

four-factor analyses and includes a consultation with South Dakota.

*Response 22:* The EPA disagrees with the commenters' assertion that Iowa did not meet the requirements for State-to-State consultation in 40 CFR 51.308(f)(2)(ii). Sections 11.1 *Regional Discussions* and 11.2 *Individual State Consultation* of Iowa's SIP submission contained documentation of Iowa's consultation with RPOs and individual States.<sup>54</sup> IDNR regularly participated in regional planning activities through the planning organizations, CenSARA and the Lake Michigan Air Directors Consortium. In addition to regional planning calls, Iowa also had individual State consultations with three States (Minnesota, Michigan, and Missouri) containing the five linked Class I areas in its 2023 SIP submission: Isle Royale, Seney, Boundary Waters, Voyageurs, and Hercules-Glades. Documentation of consultation with each State is contained in appendix H to Iowa's submittal.

Consistent with the preamble of the EPA's 2017 RHR, IDNR made a good faith effort to share its four-factor analyses and associated technical information with other States through its participation in regional planning calls and individual State consultations.<sup>55</sup> IDNR consulted with States reasonably expected to contribute to visibility impairment in Iowa's linked Class I areas for the second planning period. As stated in the 2017 RHR, "the consultation provisions were intended to foster and

---

<sup>54</sup> *Id.*

<sup>55</sup> See 82 FR 3078, 3116 (Jan. 10, 2017).

facilitate regional solutions, not to mandate specific outcomes.”<sup>56</sup>

As explained in detail in the NPRM, the EPA finds that Iowa’s August 2023 SIP submission meets all of the statutory and regulatory requirements of the CAA and RHR.<sup>57</sup> Furthermore, the EPA finds that IDNR fulfilled the requirements for consultation with other States reasonably expected to contribute to visibility impairment in Iowa’s linked Class I areas for the second planning period through its participation in regional planning calls and individual State consultations.<sup>58</sup> Thus, the EPA proposes approval of Iowa’s SIP and concludes a FIP is unnecessary.

*Comment 23:* The Conservation Groups comment that the EPA’s proposed action failed to consider environmental justice impacts from GNN and GNS. The commenters also assert that Iowa’s SIP lacks any consideration of environmental justice. The comment also states that, according to EPA’s EJ Screen and Mapping Tool, the communities within a 20-mile radius of GNN, LGS, and WSEC rank “above average” in risk for respiratory health impacts as compared to other States’ census block groups and that the socioeconomic indicator of low income is higher than 50 percent. The commenters also state that the environmental justice indices for PM<sub>2.5</sub> and ozone are high for the communities surrounding LGS; the ozone environmental justice index is of considerable concern

---

<sup>56</sup> *Id.* at 3088.

<sup>57</sup> 89 FR 63258, 63276 (Aug. 2, 2024).

<sup>58</sup> *Id.*

at GNN; PM and ozone are above the State median percentile at WSEC; and the people of color percentiles range from 73<sup>rd</sup> to 88<sup>th</sup> percentile at the three facilities. The Conservation Groups conclude that the EPA must promulgate a FIP for Iowa sources and establish emission limitations that reduce impacts in both Class I areas and environmental justice communities.

*Response 23:* Neither the CAA nor the RHR require an evaluation of environmental justice with regard to a regional haze SIP. The focus of the regional haze SIP for Iowa is SO<sub>2</sub> and NO<sub>x</sub> emissions as they impact visibility in Class I areas. This action addresses two EGU sources (LGS and WSEC) of air pollution impacting Class I areas. As discussed in the NPRM and in this final rule, the EPA has evaluated Iowa's SIP submission against the statutory and regulatory regional haze requirements and determined that it satisfies those minimum requirements.

*Comment 24:* The Conservation Groups comment that Iowa did not provide meaningful access for persons with limited English proficiency to review and comment on the draft SIP because they did not provide a public translation of the notice in any language other than English. The commenters assert that the socioeconomic indicator for limited English-speaking households in communities surrounding GNN, LGS, and WSEC range from 74 to 89 percent.

*Response 24:* In reviewing Iowa's August 15, 2023, Regional Haze SIP revision, the EPA found that IDNR satisfied the public notice and comment requirements for the SIP revision. Iowa

provided an opportunity to submit written comments and request a public hearing. IDNR made the SIP submission available for public comment from February 13, 2023, to March 16, 2023.<sup>59</sup> The publication included notification of the 30-day notice period and information about the date, place, and time of the public hearing, as required under 40 CFR 51.102(a). After reasonable notice, the public hearing was held virtually on March 16, 2023.<sup>60</sup> Finally, Iowa's revised SIP submittal includes a certification that the State satisfied the requirements in 40 CFR 51.102(a) and (d), as required by 40 CFR 51.102(f).<sup>61</sup>

Furthermore, in section 12.1 *Response to Public Comments*, Iowa included additional details on the State's Notice of Nondiscrimination and Language Access Plan that are publicly available on IDNR's website and intended to provide meaningful access to individuals with limited English proficiency.<sup>62</sup> The EPA notes that the commenters do not allege that IDNR failed to fulfill its public notice and comment obligations, nor is there any indication that the commenters requested language assistance. In this instance, the State's public comment process meets the minimum requirements in the 40 CFR part 51, appendix V for SIP submissions.

#### **IV. What Action is the EPA Taking?**

The EPA is taking final action to amend the Iowa SIP by approving the State's submission received on August 15, 2023, as

---

<sup>59</sup> See Iowa August 15, 2023, submission at 66.

<sup>60</sup> See 40 CFR 51.102(d).

<sup>61</sup> See Iowa August 15, 2023, submission at 82.

<sup>62</sup> *Id.* at 76.

satisfying the regional haze requirements for the second implementation period contained in 40 CFR 51.308(f), (g), and (i). In addition, the EPA is approving and incorporating by reference in 40 CFR 52.820(d), *EPA-Approved Iowa Source-Specific Orders/Permits* the following source-specific requirements as part of Iowa's long-term strategy for regional haze:

- MidAmerican Energy Company - Louisa Station, permit #05-A-031-P6, state effective date July 20, 2023, not including permit condition 11.
- MidAmerican Energy Company - Walter Scott Jr. Energy Center, permit #75-A-357-P9, state effective date July 20, 2023, not including permit condition 11.
- MidAmerican Energy Company - Walter Scott, Jr. Energy Center permit #03-A-425-P4, state effective date December 5, 2011, not including permit condition 6.

## **V. Incorporation by Reference**

In this document, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of the Iowa permits #05-A-031-P6, #75-A-357-P9, and #03-A-425-P4 discussed in sections I, II, and IV. of this preamble and as set forth below in the amendments to 40 CFR part 52. The EPA has made, and will continue to make, these materials generally available through <https://www.regulations.gov> and at the EPA Region 7 Office (please contact the person identified in the **FOR FURTHER**

**INFORMATION CONTACT** section of this preamble for more information).

Therefore, these materials have been approved by the EPA for inclusion in the SIP, have been incorporated by reference by the EPA into that plan, are fully federally enforceable under sections 110 and 113 of the CAA as of the effective date of the final rulemaking of the EPA's approval, and will be incorporated by reference in the next update to the SIP compilation.<sup>63</sup>

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

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA 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 CAA. 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 Orders 12866 (58 FR 51735, October 4, 1993);
- Is not subject to Executive Order 14192 (90 FR 9065, February 6, 2025) because SIP actions are exempt from review under Executive Order 12866;
- Does not impose an information collection burden under the

---

<sup>63</sup> 62 FR 27968, May 22, 1997.

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 subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- 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 CAA.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian Tribe has demonstrated that a Tribe has jurisdiction. In those areas of Indian country, the rule does not have Tribal implications and will not impose substantial direct costs on Tribal governments or preempt Tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

This action is subject to the Congressional Review Act (CRA), and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[insert date 60 days after date of publication in the Federal Register]**. 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, Nitrogen dioxide, Ozone, Particulate  
matter, Sulfur oxides.

Dated: \_\_\_\_\_

July 31, 2025

James Macy,  
Regional Administrator,  
Region 7.

For the reasons stated in the preamble, the EPA amends Title 40, chapter I, of the Code of Federal Regulations as follows:

**PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

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

**Subpart Q—Iowa**

2. In § 52.820:

a. The table in paragraph (d) is amended by adding the entries “(170)”, “(171)”, and “(172)” in numerical order.

b. The table in paragraph (e) is amended by adding the entry “(56)” in numerical order.

The additions read as follows:

**§ 52.820 Identification of plan.**

\* \* \* \* \*

(d) \* \* \*

**EPA-Approved Iowa Source-Specific Orders/Permits**

Name of source	Order/Permit No.	State effective date	EPA Approval date	Explanation
* * * * *				
(170) MidAmerican Energy Company - Louisa Station	05-A-031-P6	7/20/2023	[insert date of publication in the Federal Register], 90 FR [insert Federal Register page where the document begins]	Regional Haze Plan for the second implementation period; condition 11 of the permit is not part of the SIP.

(171) MidAmerican Energy Company - Walter Scott Jr. Energy Center	75-A-357-P9	7/20/2023	[insert date of publication in the Federal Register], 90 FR [insert Federal Register page where the document begins]	Regional Haze Plan for the second implementati on period; condition 11 of the permit is not part of the SIP.
(172) MidAmerican Energy Company - Walter Scott, Jr. Energy Center	03-A-425-P4	12/5/2011	[insert date of publication in the Federal Register], 90 FR [insert Federal Register page where the document begins]	Regional Haze Plan for the second implementati on period; condition 6 of the permit is not part of the SIP.

(e) \* \* \*

**EPA-Approved Iowa Nonregulatory Provisions**

Name of nonregulator y SIP provision	Applicable geographic or nonattainmen t area	State submitta l date	EPA Approval date	Explanation
* * * * *				
(56) Iowa Regional Haze Plan for the Second Implementati on Period	Statewide	8/15/202 3	[insert date of publication in the Federal Register], 90 FR [insert Federal Register page where the document begins]	[EPA-R07- OAR-2024- 0313; FRL- 12096-02- R7]

3. Revise § 52.842 to read as follows:

**§ 52.842 Visibility protection.**

(a) The requirements of section 169A of the Clean Air Act (CAA) are met because the Regional Haze plan submitted by Iowa on March 25, 2008, and supplemented on May 14, 2019, includes fully approvable measures for meeting the requirements of the Regional Haze Rule including 40 CFR 51.308(d)(3) and (e) with respect to emissions of NO<sub>x</sub> and SO<sub>2</sub> from electric generating units.

(b) The requirements of section 169A of the CAA are met because the Regional Haze plan submitted by Iowa on August 15, 2023, includes fully approvable measures for meeting the requirements of the Regional Haze Rule in 40 CFR 51.308.

[FR Doc. 2025-14850 Filed: 8/4/2025 8:45 am; Publication Date: 8/5/2025]