

previously approved into the SIP. (89 FR 9771).

### III. Proposed Action

The EPA is proposing to approve Connecticut's November 27, 2023, SIP submittal that addresses revisions to RCSA sections 22a-174-22e and 22a-174-22f. The EPA is soliciting public comments on the issues discussed in this notice or on other relevant matters. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to this proposed rule by following the instructions listed in the **ADDRESSES** section of this **Federal Register**.

### IV. Incorporation by Reference

In this rule, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference changes to Connecticut RCSA sections 22a-174-22e and 22a-174-22f as adopted on November 13, 2023. The changes primarily add compliance dates for sources brought into the applicability of these sections due to a change in the definition of "severe non-attainment area for ozone." The EPA has made, and will continue to make, these documents generally available through <https://www.regulations.gov> and at the EPA Region 1 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

### V. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Clean Air Act and applicable Federal regulations. See 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed 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 proposed 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 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 Clean Air Act.

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).

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

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: July 10, 2025.

**Mark Sanborn,**

*Regional Administrator, EPA Region 1.*

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R08-OAR-2024-0607; FRL-12598-01-R8]

### Air Plan Partial Approval and Partial Disapproval; Colorado; Regional Haze Plan for the Second Implementation Period

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

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to partially approve and partially disapprove a regional haze state implementation plan (SIP) submission submitted by the State of Colorado under the Clean Air Act (CAA) and the EPA's Regional Haze Rule (RHR) for the program's second implementation period. Colorado's 2022 SIP submission addresses the requirement that states revise their long-term strategies every implementation period to make 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. We propose to base our partial disapproval of Colorado's long-term strategy on its inclusion of insufficiently justified enforceable source closures that are not consistent with statutory requirements. Colorado's 2022 SIP submission also addresses other applicable requirements for the second implementation period of the regional haze program. Concurrently, the EPA is proposing to approve a revision to Colorado's SIP consolidating existing regional haze provisions into the same regulation where the State's new, second planning period provisions are located.

**DATES:** Written comments must be received on or before September 15, 2025.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R08-OAR-2024-0607, to the Federal Rulemaking Portal: <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from <https://www.regulations.gov>. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video,

etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

**Docket:** All documents in the docket are listed in the <https://www.regulations.gov> index. Although listed in the index, some information is not publicly available, *e.g.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available electronically in <https://www.regulations.gov>. Please email or call the person listed in the **FOR FURTHER INFORMATION CONTACT** section if you need to make alternative arrangements for access to the docket.

**FOR FURTHER INFORMATION CONTACT:**

Jaslyn Dobrahner, Air and Radiation Division, EPA, Region 8, Mailcode 8ARD-IO, 1595 Wynkoop Street, Denver, Colorado 80202-1129, telephone number: (303) 312-6252; email address: [dobrahner.jaslyn@epa.gov](mailto:dobrahner.jaslyn@epa.gov).

**SUPPLEMENTARY INFORMATION:**

Throughout this document wherever “we,” “us,” or “our” is used, we mean the EPA.

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**I. What action is the EPA proposing?**

Pursuant to CAA section 110(k)(3), the EPA is proposing to partially approve and partially disapprove a SIP submission submitted by the State of Colorado to the EPA on May 20, 2022, and supplemented on August 2, 2022, and June 23, 2023, addressing the requirements of the second implementation period of the RHR.<sup>1</sup> Specifically, the EPA is proposing approval for the portions of Colorado’s 2022 SIP submission relating to 40 CFR 51.308(f)(1): calculations of baseline, current, and natural visibility conditions, progress to date, and the uniform rate of progress; 40 CFR 51.308(f)(2)(ii)–(iv): long-term strategy; 40 CFR 51.308(f)(3): reasonable progress goals; 40 CFR 51.308(f)(4): reasonably attributable visibility impairment; 40 CFR 51.308(f)(5) and 40 CFR 51.308(g): progress report requirements; 40 CFR 51.308(f)(6): monitoring strategy and other implementation plan requirements; and 40 CFR 51.308(i): FLM consultation.

For the reasons described in section IV.C.1.b. of this document, the EPA is proposing to disapprove portions of Colorado’s 2022 SIP submission relating to 40 CFR 51.308(f)(2)(i). The submission relies on enforceable source closures that the EPA proposes to disapprove on the basis that they were adopted without full information about grid reliability concerns, particularly because the Class I areas Colorado emissions contribute to are below the Uniform Rate of Progress and the state conducted four-factor analyses. The EPA also proposes to find that the State has not provided necessary assurances

<sup>1</sup> The EPA may partially approve portions of a submittal if those elements meet all applicable requirements and may disapprove the remainder so long as the elements are fully separable. See CAA section 110(k)(3) and July 1992 EPA memorandum titled “Processing of State Implementation Plan (SIP) Submittals” from John Calcagni, at <https://www.epa.gov/sites/default/files/2015-07/documents/procsip.pdf>. The EPA proposes to conclude that the elements at issue are fully separable, as described in greater detail later in this preamble.

required by CAA section 110(a)(2)(E) that unconsented enforceable source closures would not be prohibited by state or federal law.

Concurrently, the EPA is proposing to approve a revision to Colorado’s SIP consolidating existing regional haze provisions into the same regulation where the State’s new, second planning period provisions are located. Together, these SIP revisions establish updated emission reduction requirements for nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and particulate matter (PM) emissions from certain sources identified as impacting Class I areas under the RHR for the second 10-year planning period.<sup>2</sup>

**II. Background and Requirements for Regional Haze Plans**

A detailed history and background of the regional haze program is provided in multiple prior EPA proposal actions.<sup>3</sup> For additional background on the 2017 RHR revisions, please refer to section III. Overview of Visibility Protection Statutory Authority, Regulation, and Implementation of “Protection of Visibility: Amendments to Requirements for State Plans” of the 2017 RHR.<sup>4</sup> The following is an abbreviated history and background of the regional haze program and 2017 Regional Haze Rule as it applies to the current action.

**A. Regional Haze**

In the 1977 CAA amendments, Congress created a program for protecting visibility in the nation’s mandatory Class I Federal areas, which include certain national parks and wilderness areas.<sup>5</sup> CAA section 169A. The CAA establishes as a national goal the “prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution.” CAA section 169A(a)(1).

Regional haze is visibility impairment that is produced by a multitude of anthropogenic sources and activities that are located across a broad

<sup>2</sup> The EPA uses the terms “implementation period” and “planning period” interchangeably.

<sup>3</sup> See 90 FR 13516 (March 24, 2025).

<sup>4</sup> See 82 FR 3078 (January 10, 2017, located at <https://www.federalregister.gov/documents/2017/01/10/2017-00268/protection-of-visibility-amendments-to-requirements-for-state-plans#h-16>).

<sup>5</sup> Areas statutorily designated as mandatory Class I Federal areas consist of national parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977. CAA section 162(a). There are 156 mandatory Class I areas. The list of areas to which the requirements of the visibility protection program apply is in 40 CFR part 81, subpart D.

geographic area and that emit pollutants that impair visibility. 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., SO<sub>2</sub>, NO<sub>x</sub>, and, in some cases, volatile organic compounds (VOC) and ammonia (NH<sub>3</sub>)). Fine particle precursors react in the atmosphere to form fine particulate matter (PM<sub>2.5</sub>), which impairs visibility by scattering and absorbing light. Visibility impairment reduces the perception of clarity and color, as well as visible distance.<sup>6</sup>

To address regional haze visibility impairment, the 1999 RHR established an iterative planning process that requires states containing Class I areas and states containing sources whose emissions “may reasonably be anticipated to cause or contribute to any impairment of visibility” in a Class I area in another state to periodically submit SIP revisions to address such impairment. CAA section 169A(b)(2); see also 40 CFR 51.308(b), (f) (establishing submission dates for iterative regional haze SIP revisions); (64 FR at 35768, July 1, 1999).

On January 10, 2017, the EPA promulgated revisions to the RHR (82 FR 3078, January 10, 2017) that apply for the second and subsequent implementation periods. The reasonable progress requirements as revised by the 2017 rule (referred to here as the 2017 RHR Revisions) are codified at 40 CFR 51.308(f).

#### B. Roles of Agencies in Addressing Regional Haze

Because the air pollutants and pollution affecting visibility in Class I areas can be transported over long distances, successful implementation of the regional haze program requires long-term, regional coordination among multiple jurisdictions and agencies that have responsibility for Class I areas and the emissions that impact visibility in those areas. To address regional haze, states need to develop strategies in coordination with one another, considering the effect of emissions from

one jurisdiction on the air quality in another. Five regional planning organizations (RPOs), which include representation from state and Tribal governments, the EPA, and FLMs, were developed in the lead-up to the first implementation period to address regional haze. RPOs evaluate technical information to better understand how emissions from state and Tribal land impact Class I areas across the country, pursue the development of regional strategies to reduce emissions of particulate matter and other pollutants leading to regional haze, and help states meet the consultation requirements of the RHR.

The Western Regional Air Partnership (WRAP), one of the five regional planning organizations described in the previous paragraph, is a collaborative effort of state governments, local air agencies, Tribal governments, and various federal agencies established to initiate and coordinate activities associated with the management of regional haze, visibility, and other air quality issues in the Western United States. Members include the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, and 28 Tribal governments.<sup>7</sup> The federal partner members of WRAP are the EPA, U.S. National Parks Service (NPS), U.S. Fish and Wildlife Service (USFWS), U.S. Forest Service (USFS), and the Bureau of Land Management (BLM). WRAP formed a workgroup to develop a planning framework for state regional haze second planning period SIPs. Based on emissions and monitoring data supplied by its membership, WRAP produced a technical system to support regional modeling of visibility impacts at Class I areas across the West. The WRAP Technical Support System consolidated air quality monitoring data, meteorological and receptor modeling data analyses, emissions inventories and projections, and gridded air quality/visibility regional modeling results. The Technical Support System is accessible by member states and allows for the creation of maps, figures, and tables to export and use in state plan development. It also maintains the original source data for verification and further analysis. Colorado collaborated with WRAP on various aspects of the State’s 2022 SIP submission, including the identification of Class I areas outside of Colorado that may be affected by sources in the state, source selection, analysis of air quality monitoring data,

preparation of emission inventories, development of reasonable progress goals, and air quality modeling, which together informed the development of its long-term strategy.

#### C. Status of Colorado’s Regional Haze Plan for the First Implementation Period

The CAA requires that regional haze plans for the first implementation period (2008 through 2018) include, among other things, a long-term strategy for making reasonable progress and Best Available Retrofit Technology (BART) requirements for certain older stationary sources, where applicable.<sup>8</sup> On December 31, 2012, the EPA approved a regional haze SIP revision submitted May 25, 2011, by the State of Colorado as meeting the requirements of the CAA and RHR.<sup>9</sup> On February 25, 2013, the National Parks Conservation Association (NPCA) and Wild Earth Guardians (Guardians) filed petitions for review in the U.S. Court of Appeals for the Tenth Circuit of the EPA’s final approval of the Colorado regional haze SIP.<sup>10</sup> Among other things, Guardians and NPCA challenged the NO<sub>x</sub> BART limit for Craig Unit 1. The parties settled the challenge regarding Craig Unit 1.<sup>11</sup> Separately, on May 26, 2015, the EPA reissued its final approval of the May 25, 2011, SIP submission with respect to the State’s BART determination for the Comanche Generating Station in response to a petition for review and as part of a voluntary remand, without vacatur, to more adequately respond to public comments concerning the Comanche Generating Station.<sup>12</sup>

#### D. Colorado’s Regional Haze Plan for the Second Implementation Period

On May 20, 2022, Colorado submitted a SIP submission to address its regional haze obligations for the second implementation period (2018–2028). Colorado’s 2022 SIP submission contains the State’s long-term strategy to address regional haze visibility impairment for each Class I area within the State and each Class I area outside the State that may be affected by emissions from the State. In developing its long-term strategy, the State

<sup>6</sup> There are several ways to measure the amount of visibility impairment, *i.e.*, haze. One such measurement is the deciview, which is the principal metric used by the RHR. Under many circumstances, a change in one deciview will be perceived by the human eye to be the same on both clear and hazy days. The deciview is unitless. It is proportional to the logarithm of the atmospheric extinction of light, which is the perceived dimming of light due to its being scattered and absorbed as it passes through the atmosphere. Atmospheric light extinction ( $b_{ext}$ ) is a metric used for expressing visibility and is measured in inverse megameters ( $Mm^{-1}$ ). The formula for the deciview is  $10 \ln(b_{ext})/10 Mm^{-1}$ . 40 CFR 51.301.

<sup>7</sup> A full list of WRAP members is available at <https://www.westar.org/wrap-council-members/>.

<sup>8</sup> Requirements for regional haze SIPs for the first implementation period are also contained in CAA section 169A(b)(2).

<sup>9</sup> 77 FR 76871 (December 31, 2012).

<sup>10</sup> *WildEarth Guardians v. EPA*, No. 13–9520 (10th Cir.) and *National Parks Conservation Association v. EPA*, No. 13–9525 (10th Cir.).

<sup>11</sup> Following that settlement, on July 5, 2018, the EPA approved a SIP revision to include source-specific revisions to the NO<sub>x</sub> BART determination for Craig Station Unit 1 and to the NO<sub>x</sub> reasonable progress determination for the Nucla Station. 83 FR 31332 (July 5, 2018).

<sup>12</sup> 80 FR 29953 (May 26, 2015).

examined the need to implement additional enforceable emission limitations, compliance schedules, and other measures that may be necessary to make reasonable progress since the first implementation period. Specifically, Colorado's 2022 SIP submission contains an assessment of visibility progress made at Class I areas since the first implementation period and a long-term strategy to address regional haze visibility impairment at the twelve Class I areas the State identified, including: Colorado's selection of sources that may affect visibility in Class I areas within the State and outside the State for four-factor analysis; its evaluation of the selected sources to determine what emission reduction measures constitute reasonable progress for the long-term strategy; regional scale modeling of the State's long-term strategy to set reasonable progress goals for 2028; and ultimately, Colorado's determinations on what control measures are necessary for the long-term strategy to address regional haze visibility impairment in the twelve Class I areas. The State concluded that additional emission reduction measures for Colorado facilities are required for the second implementation period under its long-term strategy.

On May 20, 2022, Colorado submitted a separate SIP submission to move the regional haze provisions currently contained in Regulation Number 3 to Regulation Number 23. The Colorado Air Quality Control Commission previously approved regional haze requirements under Regulation Number 3, which included emission reduction requirements for sources subject to BART and reasonable progress determinations during the first planning period of the regional haze program. As part of Colorado's 2022 SIP submission, the State adopted revisions to Regulation Number 3 (Part F) to the newly created Regulation Number 23 which will serve as the central repository for new and existing provisions that comply with the RHR. Regulation Number 23 includes BART and reasonable progress determinations from the first planning period as well as emission reduction requirements to meet the reasonable progress goals for the second 10-year planning period.

### III. Requirements for Regional Haze Plans for the Second Implementation Period

Under the CAA and the EPA's regulations, all 50 states, the District of Columbia, and the U.S. Virgin Islands were required to submit regional haze SIPs satisfying the applicable requirements for the second

implementation period of the regional haze program by July 31, 2021. Each SIP must contain a long-term strategy for making reasonable progress toward meeting the national goal of remedying any existing and preventing any future anthropogenic visibility impairment in Class I areas. CAA section 169A(b)(2)(B). To this end, 40 CFR 51.308(f) lays out the process by which states determine what constitutes their long-term strategies, with the order of the requirements in 40 CFR 51.308(f)(1) through (3) generally mirroring the order of the steps in the reasonable progress analysis<sup>13</sup> and (f)(4) through (6) containing additional, related requirements.

Broadly speaking, a state first must identify the Class I areas within the state and determine the Class I areas outside the state in which visibility may be affected by emissions from the state. These are the Class I areas that must be addressed in the state's long-term strategy. See 40 CFR 51.308(f), (f)(2). For each Class I area within its borders, a state must then calculate the baseline (five-year average period of 2000–2004), current, and natural visibility conditions (*i.e.*, visibility conditions without anthropogenic visibility impairment) for that area, as well as the visibility improvement made to date and the “uniform rate of progress” (URP). The URP is the linear rate of progress needed to attain natural visibility conditions, assuming a starting point of baseline visibility conditions in 2004 and ending with natural conditions in 2064. This linear interpolation is used as a tracking metric to help states assess the amount of progress they are making towards the national visibility goal over time in each Class I area. See 40 CFR 51.308(f)(1).

Each state having a Class I area and/or emissions that may affect visibility in a Class I area must then develop a long-term strategy that includes the enforceable emission limitations, compliance schedules, and other measures that are necessary to make reasonable progress in such areas. A reasonable progress determination is based on applying the four factors in CAA section 169A(g)(1) to sources of visibility impairing pollutants that the state has selected to assess for controls for the second implementation period. Additionally, as further explained below, the RHR at 40 CFR 51.3108(f)(2)(iv) separately provides five

<sup>13</sup> The EPA explained in the 2017 RHR revisions that we were adopting new regulatory language in 40 CFR 51.308(f) that, unlike the structure in 51.308(d), “tracked the actual planning sequence.” (82 FR at 3091).

“additional factors”<sup>14</sup> that states must consider in developing their long-term strategies. See 40 CFR 51.308(f)(2). A state evaluates potential emission reduction measures for those selected sources and determines which are necessary to make reasonable progress. Those measures are then incorporated into the state's long-term strategy.

After a state has developed its long-term strategy, it then establishes RPGs for each Class I area within its borders by modeling the visibility impacts of all reasonable progress controls at the end of the second implementation period, *i.e.*, in 2028, as well as the impacts of other requirements of the CAA. The RPGs include reasonable progress controls not only for sources in the state in which the Class I area is located, but also for sources in other states that contribute to visibility impairment in that area. The RPGs are then compared to the baseline visibility conditions and the URP to ensure that progress is being made towards the statutory goal of preventing any future and remedying any existing anthropogenic visibility impairment in Class I areas. 40 CFR 51.308(f)(2)–(3). There are additional requirements in the rule, including FLM consultation, that apply to all visibility protection SIPs and SIP revisions. See *e.g.*, 40 CFR 51.308(i).

While states have discretion to choose any source selection methodology that is reasonable, whatever choices they make should be reasonably explained. To this end, 40 CFR 51.308(f)(2)(i) requires that a state's SIP submission include “a description of the criteria it used to determine which sources or groups of sources it evaluated.” 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).

Once a state has selected the set of sources, the next step is to determine the emissions reduction measures for those sources that are necessary to make reasonable progress for the second implementation period.<sup>15</sup> This is

<sup>14</sup> The five “additional factors” for consideration in 40 CFR 51.308(f)(2)(iv) are distinct from the four factors listed in CAA section 169A(g)(1) and 40 CFR 51.308(f)(2)(i) that states must consider and apply to sources in determining reasonable progress.

<sup>15</sup> The CAA provides that, “[i]n determining reasonable progress there shall be taken into consideration” the four statutory factors. CAA section 169A(g)(1). However, in addition to four-factor analyses for selected sources, groups of sources, or source categories, a state may also

accomplished by considering the four factors—“the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements.” CAA section 169A(g)(1). The EPA has explained that the four-factor analysis is an assessment of potential emission reduction measures (*i.e.*, control options) for sources; “use of the terms ‘compliance’ and ‘subject to such requirements’ in section 169A(g)(1) strongly indicates that Congress intended the relevant determination to be the requirements with which sources would have to comply to satisfy the CAA’s reasonable progress mandate.” 82 FR at 3091. Thus, for each source it has selected for four-factor analysis,<sup>16</sup> a state must consider a “meaningful set” of technically feasible control options for reducing emissions of visibility impairing pollutants. *Id.* at 3088.

The EPA has also explained that, in addition to the four statutory factors, states have flexibility under the CAA and RHR to reasonably consider visibility benefits as an additional factor alongside the four statutory factors.<sup>17</sup> Ultimately, while states have discretion to reasonably weigh the factors and to determine what level of control is needed, 40 CFR 51.308(f)(2)(i) provides that a state “must include in its implementation plan a description of . . . how the four factors were taken into consideration in selecting the measure for inclusion in its long-term strategy.”

As explained above, 40 CFR 51.308(f)(2)(i) requires states to determine the emission reduction measures for sources that are necessary to make reasonable progress by considering the four factors. Pursuant to 40 CFR 51.308(f)(2), measures that are necessary to make reasonable progress towards the national visibility goal must be included in a state’s long-term

consider additional emission reduction measures for inclusion in its long-term strategy, *e.g.*, from other newly adopted, on-the-books, or on-the-way rules and measures for sources not selected for four-factor analysis for the second implementation period.

<sup>16</sup> “Each source” or “particular source” is used here as shorthand. While a source-specific analysis is one way of applying the four factors, neither the statute nor the RHR requires states to evaluate individual sources. Rather, states have “the flexibility to conduct four-factor analyses for specific sources, groups of sources or even entire source categories, depending on state policy preferences and the specific circumstances of each state.” 82 FR at 3088.

<sup>17</sup> See, *e.g.*, Responses to Comments on Protection of Visibility: Amendments to Requirements for State Plans; Proposed Rule (81 FR 26942, May 4, 2016), Docket ID No. EPA-HQ-OAR-2015-0531, U.S. Environmental Protection Agency at 186.

strategy and in its SIP. If the outcome of a four-factor analysis is that an emissions reduction measure is necessary to make reasonable progress towards remedying existing or preventing future anthropogenic visibility impairment, that measure must be included in the SIP.

The characterization of information on each of the factors is also subject to the documentation requirement in 40 CFR 51.308(f)(2)(iii). The reasonable progress analysis is a technically complex exercise, and also a flexible one that provides states with bounded discretion to design and implement approaches appropriate to their circumstances. Given this flexibility, 40 CFR 51.308(f)(2)(iii) plays an important function in requiring a state to document the technical basis for its decision making so that the public and the EPA can comprehend and evaluate the information and analysis the state relied upon to determine what emission reduction measures must be in place to make reasonable progress. The technical documentation must include the modeling, monitoring, cost, engineering, and emissions information on which the state relied to determine the measures necessary to make reasonable progress.

Additionally, the RHR at 40 CFR 51.3108(f)(2)(iv) separately provides five “additional factors” that states must consider in developing their long-term strategies: (1) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment; (2) measures to reduce the impacts of construction activities; (3) source retirement and replacement schedules; (4) basic smoke management practices for prescribed fire used for agricultural and wildland vegetation management purposes and smoke management programs; and (5) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.

Because the air pollution that causes regional haze crosses state boundaries, 40 CFR 51.308(f)(2)(ii) requires a state to consult with other states that also have emissions that are reasonably anticipated to contribute to visibility impairment in a given Class I area. If a state, pursuant to consultation, agrees that certain measures (*e.g.*, a certain emission limitation) are necessary to make reasonable progress at a Class I area, it must include those measures in its SIP. 40 CFR 51.308(f)(2)(ii)(A). Additionally, the RHR requires that states that contribute to visibility impairment at the same Class I area consider the emission reduction

measures the other contributing states have identified as being necessary to make reasonable progress for their own sources. 40 CFR 51.308(f)(2)(ii)(B). If a state has been asked to consider or adopt certain emission reduction measures, but ultimately determines those measures are not necessary to make reasonable progress, that state must document in its SIP the actions taken to resolve the disagreement. 40 CFR 51.308(f)(2)(ii)(C). Under all circumstances, a state must document in its SIP submission all substantive consultations with other contributing states. 40 CFR 51.308(f)(2)(ii)(C).

Reasonable progress goals “measure the progress that is projected to be achieved by the control measures states have determined are necessary to make reasonable progress based on a four-factor analysis.” 82 FR at 3091. For the second implementation period, the RPGs are set for 2028. Reasonable progress goals are not enforceable targets, 40 CFR 51.308(f)(3)(iii). While states are not legally obligated to achieve the visibility conditions described in their RPGs, 40 CFR 51.308(f)(3)(i) requires that “[t]he long-term strategy and the reasonable progress goals must provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period.”

RPGs may also serve as a metric for assessing the amount of progress a state is making towards the national visibility goal. To support this approach, the RHR requires states with Class I areas to compare the 2028 RPG for the most impaired days to the corresponding point on the URP line (representing visibility conditions in 2028 if visibility were to improve at a linear rate from conditions in the baseline period of 2000–2004 to natural visibility conditions in 2064). If the most impaired days RPG in 2028 is above the URP (*i.e.*, if visibility conditions are improving more slowly than the rate described by the URP), each state that contributes to visibility impairment in the Class I area must demonstrate, based on the four-factor analysis required under 40 CFR 51.308(f)(2)(i), that no additional emission reduction measures would be reasonable to include in its long-term strategy. 40 CFR 51.308(f)(3)(ii). To this end, 40 CFR 51.308(f)(3)(ii) requires that each state contributing to visibility impairment in a Class I area that is projected to improve more slowly than the URP provide “a robust demonstration, including documenting the criteria used to determine which sources or groups

[of] sources were evaluated and how the four factors required by paragraph (f)(2)(i) were taken into consideration in selecting the measures for inclusion in its long-term strategy.”

Section 51.308(f)(6) requires states to have certain strategies and elements in place for assessing and reporting on visibility. Individual requirements under this section apply either to states with Class I areas within their borders, states with no Class I areas but that are reasonably anticipated to cause or contribute to visibility impairment in any Class I area, or both. Compliance with the monitoring strategy requirement may be met through a state’s participation in the Interagency Monitoring of Protected Visual Environments (IMPROVE) monitoring network, which is used to measure visibility impairment caused by air pollution at the 156 Class I areas covered by the visibility program. 40 CFR 51.308(f)(6), (f)(6)(i), (f)(6)(iv).

All states’ SIPs must provide for procedures by which monitoring data and other information are used to determine the contribution of emissions from within the state to regional haze visibility impairment in affected Class I areas, as well as a statewide inventory documenting such emissions. 40 CFR 51.308(f)(6)(ii), (iii), (v). All states’ SIPs must also provide for any other elements, including reporting, recordkeeping, and other measures, that are necessary for states to assess and report on visibility. 40 CFR 51.308(f)(6)(vi).

Section 51.308(f)(5) requires a state’s regional haze SIP revision to address the requirements of paragraphs 40 CFR 51.308(g)(1) through (5) so that the plan revision due in 2021 will serve also as a progress report addressing the period since submission of the progress report for the first implementation period. The regional haze progress report requirement is designed to inform the public and the EPA about a state’s implementation of its existing long-term strategy and whether such implementation is in fact resulting in the expected visibility improvement. See 81 FR 26942, 26950 (May 4, 2016), (82 FR at 3119, January 10, 2017). To this end, every state’s SIP revision for the second implementation period is required to assess changes in visibility conditions and describe the status of implementation of all measures included in the state’s long-term strategy, including BART and reasonable progress emission reduction measures from the first implementation period, and the resulting emissions reductions. 40 CFR 51.308(g)(1) and (2).

CAA section 169A(d) requires that before a state holds a public hearing on a proposed regional haze SIP revision, it must consult with the appropriate FLM or FLMs; pursuant to that consultation, the state must include a summary of the FLMs’ conclusions and recommendations in the notice to the public. Consistent with this statutory requirement, the RHR also requires that states “provide the [FLM] with an opportunity for consultation, in person and at a point early enough in the State’s policy analyses of its long-term strategy emission reduction obligation so that information and recommendations provided by the [FLM] can meaningfully inform the State’s decisions on the long-term strategy.” 40 CFR 51.308(i)(2). For the EPA to evaluate whether FLM consultation meeting the requirements of the RHR has occurred, the SIP submission should include documentation of the timing and content of such consultation. The SIP revision submitted to the EPA must also describe how the state addressed any comments provided by the FLMs. 40 CFR 51.308(i)(3). Finally, a SIP revision must provide procedures for continuing consultation between the state and FLMs regarding the state’s visibility protection program, including development and review of SIP revisions, five-year progress reports, and the implementation of other programs having the potential to contribute to impairment of visibility in Class I areas. 40 CFR 51.308(i)(4).

Finally, the state SIP must meet the approval requirements in CAA section 110(a)(2) for plans “submitted by a State under this chapter” to the extent not already addressed in the regulations described previously. As relevant here, the state must provide “necessary assurances” that the state has adequate personnel, funding, and authority to carry out the implementation plan, that the state “is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof,” and that the state can lawfully rely on regional and local instrumentalities to implement the SIP, as applicable. CAA section 110(a)(2)(E)(i)–(iii).

#### **IV. The EPA’s Evaluation of Colorado’s Regional Haze Plan for the Second Implementation Period**

In section IV of this document, we describe Colorado’s 2022 SIP submission and evaluate it against the requirements of the CAA and RHR for the second implementation period of the regional haze program.

#### *A. Identification of Class I Areas*

Section 169A(b)(2) of the CAA requires each state in which any Class I area is located or “the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility” in a Class I area to have a plan for making reasonable progress toward the national visibility goal. The RHR implements this statutory requirement at 40 CFR 51.308(f), which provides that each state’s plan “must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State that may be affected by emissions from within the State,” and (f)(2), which requires each state’s plan to include a long-term strategy that addresses regional haze in such Class I areas.

There are twelve designated Class I areas within the State of Colorado, including four national parks managed by the U.S. National Park Service (Black Canyon of the Gunnison National Park, Great Sand Dunes National Park, Mesa Verde National Park, Rocky Mountain National Park) and eight wilderness areas managed by the U.S. Forest Service (Eagles Nest Wilderness Area, Flat Tops Wilderness Area, La Garita Wilderness Area, Maroon Bells-Snowmass Wilderness Area, Mount Zirkel Wilderness Area, Rawah Wilderness Area, Weminuche Wilderness Area, West Elk Wilderness Area).<sup>18</sup>

Using the 2021 Particulate Source Apportionment Technology (PSAT) product from the WRAP, Colorado identified five Class I areas outside the State where visibility may be affected by Colorado sources: Canyonland National Park in Utah (9.4%), Capitol Reef National Park in Utah (3.6%), Badlands National Park in South Dakota (7.5%), Wind Cave National Park in South Dakota (2.9%), and Wheeler Peak Wilderness in New Mexico (4.1%) based on combined percentages of nitrate + sulfate impairment at these Class I areas from Colorado sources. The State further highlighted that these Class I areas also experience visibility impairment due to five other aerosol species (sea salt, elemental carbon, organic carbon, fine soil, and coarse mass) which were not included in the 2021 PSAT modeling the State relied on to determine its contributions to Class I areas outside of the State.<sup>19</sup> Therefore, according to the State, Colorado’s contribution to overall light extinction is less than the results of the 2021 PSAT modeling which only

<sup>18</sup>Colorado 2022 SIP submission at 7.

<sup>19</sup>Colorado 2022 SIP submission at 142.

evaluated nitrate + sulfate impairment. Furthermore, Colorado notes that the already announced retirements of coal-fired power plants driven by Colorado state rules and associated with the State’s regional haze long-term strategy and incorporated into the SIP, along with state regulations for ozone, greenhouse gases, and other regulatory programs not part of the State’s regional haze long-term strategy, will further reduce nitrate and sulfate contributions from Colorado sources.<sup>20</sup> Because Colorado addressed regional haze visibility impairment for each Class I area within the State, and each mandatory Class I area located outside the State that may be affected by

emissions from the State, we find that Colorado did not unreasonably exclude any Class I areas from its analysis.

*B. Calculation of Baseline, Current, and Natural Visibility Conditions; Progress to Date; and Uniform Rate of Progress for Class I Areas Within the State*

Section 51.308(f)(1) requires states to determine the following for “each mandatory Class I Federal area located within the State”: baseline visibility conditions for the most impaired and clearest days, natural visibility conditions for the most impaired and clearest days, progress to date for the most impaired and clearest days, the differences between current visibility

conditions and natural visibility conditions, and the URP. This section also provides the option for states to propose adjustments to the URP line for a Class I area to account for visibility impacts from anthropogenic sources outside the United States and/or the impacts from wildland prescribed fires that were conducted for certain specified objectives. 40 CFR 51.308(f)(1)(vi)(B).

The IMPROVE monitoring network measures visibility impairment caused by air pollution at Class I areas. Colorado’s 2022 SIP submission provides visibility conditions for each IMPROVE monitor and associated Class I area in Colorado (table 1).<sup>21</sup>

TABLE 1—VISIBILITY CONDITIONS (DECIVIEWS) FOR COLORADO IMPROVE STATIONS

Monitor ID	Class I areas	Baseline (2000–2004)	Period (2008–2012)	Current (2014–2018)	Natural (2064) <sup>1</sup>	Progress since baseline (2000–2004)—(2014–2018)	Progress during last implementation period (2008–2012)—(2014–2018)	Difference between current (2014–2018) and natural (2064)
<b>Most Impaired Days</b>								
GRSA1 .....	Great Sand Dunes .....	9.66	8.88	8.02	4.45	– 1.64	– 0.86	3.57
MEVE1 .....	Mesa Verde .....	9.22	8.13	6.51	4.20	– 2.71	– 1.62	2.31
MOZ11 .....	Mount Zirkel, Rawah .....	7.29	6.26	5.47	3.16	– 1.82	– 0.79	2.31
ROMO1 .....	Rocky Moutain National Park .....	11.12	9.36	8.41	4.94	– 2.71	– 0.95	3.47
WEMI1 .....	Weminuche, La Garita, Black Canyon of Gunnison.	7.78	6.94	6.55	3.97	– 1.23	– 0.38	2.58
WHRI1 .....	Eagles Nest, Flat Tops, Maroon Bells, White River, West Elk.	6.30	5.89	4.98	3.02	– 1.32	– 0.91	1.96
<b>Clearest Days</b>								
GRSA1 .....	Great Sand Dunes .....	4.50	3.65	2.74	1.24	-1.76	-0.91	1.5
MEVE1 .....	Mesa Verde .....	4.32	2.96	2.28	1.02	-2.04	-0.68	1.26
MOZ11 .....	Mount Zirkel, Rawah .....	1.61	0.49	0.23	-0.47	-1.38	-0.26	0.7
ROMO1 .....	Rocky Moutain National Park .....	2.29	1.69	1.37	0.28	-0.92	-0.32	1.09
WEMI1 .....	Weminuche, La Garita, Black Canyon of Gunnison.	3.11	2.11	1.61	0.98	-1.5	-0.50	0.63
WHRI1 .....	Eagles Nest, Flat Tops, Maroon Bells, White River, West Elk.	0.70	0.04	-0.16	-0.81	-0.86	-0.20	0.65

<sup>1</sup> Natural visibility conditions for the clearest days from EPA Memo, Data for regional haze technical addendum. June 3, 2020.

The State also determined the uniform rate of progress for the most impaired and clearest days for Colorado Class I areas.<sup>22</sup> Colorado also provided haze indices and the uniform rate of progress for IMPROVE monitors and associated Class I areas outside the State.<sup>23</sup>

Based on the information provided in Colorado’s 2022 SIP submission, the EPA is proposing to approve the State’s visibility condition calculations for Great Sand Dunes, Mesa Verde, Mount Zirkel, Rawah, Rocky Mountain National Park, Weminuche, La Garita, Black Canyon of the Gunnison, Eagles Nest, Flat Tops, Maroon Bells, White

River, and West Elk<sup>24</sup> as meeting the requirements of 40 CFR 51.308(f)(1) related to the calculation of baseline, current, and natural visibility conditions; progress to date; and the URP.

*C. Long-Term Strategy*

Each state having a Class I area within its borders or emissions that may affect visibility in a Class I area must develop a long-term strategy for making reasonable progress towards the national visibility goal. CAA section 169A(b)(2)(B). After considering the four statutory factors, all measures that are determined to be necessary to make

reasonable progress must be in the long-term strategy. In developing its long-term strategy, a state must also consider the five additional factors in 40 CFR 51.308(f)(2)(iv). As part of its reasonable progress determinations, the state must describe the criteria used to determine which sources or group of sources were evaluated (*i.e.*, subjected to four-factor analysis) for the second implementation period and how the four factors were taken into consideration in selecting the emission reduction measures for inclusion in the long-term strategy. 40 CFR 51.308(f)(2)(iii).

<sup>20</sup> Colorado 2022 SIP submission at 142.

<sup>21</sup> Colorado 2022 SIP submission at 21–22 and 157.

<sup>22</sup> Colorado 2022 SIP submission at 27, 42.

<sup>23</sup> Colorado 2022 SIP submission at 18–28.

<sup>24</sup> Mount Zirkel and Rawah are subject to the same visibility calculation. Weminuche, La Garita, and Black Canyon of the Gunnison are subject to

the same visibility calculation. Eagles Nest, Flat Tops, Maroon Bells, White River, and West Elk are subject to the same visibility calculation.

1. Colorado’s Long-Term Strategy Four-Factor Analysis

a. Summary of Colorado’s Long-Term Strategy Four-Factor Analysis

Colorado identified twelve Class I areas that must be addressed in its long-term strategy.<sup>25</sup> Under 40 CFR 51.308(f)(2)(i), SIP submittals must include a description of the criteria a state used to determine which sources or groups of sources to evaluate through four-factor analysis. Colorado used a Q/d screening approach to identify sources for four-factor analysis. The Q/d screening metric uses a source’s annual emissions in tons (Q) divided by the distance in kilometers (d) between the source and the nearest Class I area, along with a reasonably selected

threshold for this metric. The larger the Q/d value, the greater the source’s expected effect on visibility in each associated Class I area.

Specifically, the WRAP Reasonable Progress Screening protocol recommends a three-step process for screening sources that involves an initial screening of identifying stationary sources that emit combined NO<sub>x</sub>, SO<sub>2</sub>, SO<sub>4</sub>, and PM<sub>10</sub> emissions of over 25 tons/year, a secondary screening of assessing the Q/d for those stationary sources to determine whether a source Q/d exceeds “10” for a specific Class I area, and the use of the 2028 Weighted Emissions Potential (WEP) to determine the possible contribution of the source to visibility impairment in Class I areas

for the 20% most impaired days. Using the WRAP-devised screening threshold of Q/d > 10 and emissions information from the 2014 National Emission Inventory (NEI), Colorado initially identified twenty-three sources in the State that may be affecting visibility at Class I areas in Colorado.<sup>26,27</sup> The State reduced the number of facilities subject to a reasonable progress four-factor analysis to nineteen because two facilities have actual emissions below the WRAP screening protocol’s threshold of 25 tons/year, one coal mine closed in 2015, and two adjacent coal mines were combined into one facility.<sup>28</sup> Ultimately, the State selected nineteen sources subject to a four-factor analysis (table 2).<sup>29</sup>

TABLE 2—FACILITIES SCREENED IN USING Q/D

Facility name	Closest Class I area	(d) Minimum of distance (km) to Class I area	(Q) Maximum of emissions (tons/year)	Q/d
Craig Power Plant ( <i>Tri-State Generation</i> ) ...	Flat Tops Wilderness .....	47.85	17,665.13	369.17
Hayden Power Plant ( <i>Public Service Co</i> ) ...	Mount Zirkel Wilderness .....	31.59	8,435.17	267.04
Cherokee Power Plant ( <i>Public Service Co</i> )	Rocky Mountain National Park .....	65.09	8,194.22	125.89
Comanche Power Plant ( <i>Public Service Co</i> )	Great Sand Dunes Wilderness .....	91.63	8,101.48	88.42
Valmont Power Plant <sup>1</sup> ( <i>Public Service Co</i> )	Rocky Mountain National Park .....	34.69	2,986.64	86.10
Lyons Cement Kiln ( <i>Cemex Construction Materials</i> ).	Rocky Mountain National Park .....	24.74	1,193.48	48.25
Pawnee Power Plant ( <i>Public Service Co</i> ) ...	Rocky Mountain National Park .....	155.67	7,340.60	47.15
Nixon Power Plant ( <i>Colorado Springs Utilities</i> ).	Great Sand Dunes Wilderness .....	113.48	5,350.98	47.15
Rawhide Power Plant ( <i>Platte River Power Authority</i> ).	Rocky Mountain National Park .....	56.45	2,438.39	43.20
Martin Drake Power Plant <sup>2</sup> ( <i>Colorado Springs Utilities</i> ).	Great Sand Dunes Wilderness .....	125.41	5,214.47	41.58
Denver International Airport <sup>3</sup> .....	Rocky Mountain National Park .....	82.84	3,112.60	37.57
Molson Coors Boiler Support Facility <sup>4</sup> .....	Rocky Mountain National Park .....	54.23	1,825.35	33.66
Nucla Power Plant <sup>5</sup> ( <i>Tri State Generation</i> )	Black Canyon of the Gunnison Wilderness	70.53	1,619.96	22.97
Portland Plant ( <i>Holicm (Us) Inc.</i> ) .....	Great Sand Dunes Wilderness .....	75.39	1,548.00	20.53
Denver Refinery ( <i>Suncor Energy</i> ) .....	Rocky Mountain National Park .....	67.03	1,278.79	19.08
South Taylor Mine/Colorado Mine ( <i>Colowyo Coal Co.</i> ).	Flat Tops Wilderness .....	40.44/39.29	685.00/652.92	16.94/16.62
Pueblo Cement Plant ( <i>GCC Rio Grande</i> ) ...	Great Sand Dunes Wilderness .....	85.31	1,080.60	12.67
Rocky Mountain Bottle Company .....	Rocky Mountain National Park .....	56.97	712.94	12.51
Evrz Rocky Mountain Steel Mill .....	Great Sand Dunes Wilderness .....	90.41	967.11	10.70

<sup>1</sup> Valmont Power Plant closed in September 2017.

<sup>2</sup> Martin Drake Unit 5 closed in January 2017.

<sup>3</sup> After reviewing emissions for the point sources, Colorado determined that emissions from each point fell below the 10 tons/year for a full analysis of additional control options. Therefore, no point sources were subject to a full emissions control analysis.

<sup>4</sup> The Molson Coors Boiler Support Facility was formerly the Colorado Energy Nations Company (CENC).

<sup>5</sup> Nucla Power Plant closed in September 2019.

The State requested that each of the nineteen sources submit cost information for its review and consideration.<sup>30</sup> For three of these sources, the State determined that it was

not necessary to conduct further review because those sources had closed prior to the State’s development of its SIP.<sup>31</sup> For the remaining sources, Colorado then evaluated what is necessary to

make reasonable progress by considering the four statutory factors<sup>32</sup> for each source:

- Cost of compliance;
- Time necessary for compliance;

<sup>25</sup> Colorado 2022 SIP submission at 7.

<sup>26</sup> Colorado 2022 SIP submission at 51.

<sup>27</sup> WRAP Reasonable Progress Source Identification and Analysis Protocol For Second 10-year Regional Haze State Implementation Plans. February 27, 2019.

<sup>28</sup> Colorado 2022 SIP submission at 51. The WRAP RP Screening protocol recommends a three

step process for screening sources that involves (1) identifying stationary sources with combined NO<sub>x</sub>, SO<sub>2</sub>, SO<sub>4</sub>, and PM<sub>10</sub> emissions of over 25 tons/year, (2) assessing the Q/d for those stationary sources to determine whether a source Q/d exceeds “10” for a specific Class I area and (3) using the 2028 Weighted Emissions Potential (WEP) to confirm whether the identified source is located in a grid

cell that impacts the specific Class I area for the 20% most impaired days.

<sup>29</sup> Colorado 2022 SIP submission at 52.

<sup>30</sup> Colorado 2022 SIP submission at 52.

<sup>31</sup> Martin Drake Unit 5, Nucla, and Valmont.

<sup>32</sup> 40 CFR 51.308(f)(2)(i)

- Energy and non-air quality environmental impacts of compliance; and

- Remaining useful life of any potentially affected sources.

The State documented these analyses in Colorado’s 2022 SIP submission and associated technical support documents. Chapter 7 of the SIP submission contains Colorado’s evaluation of the four statutory factors for each source

and Colorado’s determinations of the source-specific emission reduction measures necessary to make reasonable progress. As part of its four-factor evaluation, Colorado considered the already announced retirements of several units and facilities as part of its “remaining useful life” analysis and incorporated those retirements into the SIP.<sup>33</sup> Ultimately, the State concluded

that the following enforceable reasonable progress source retirements (table 3) and emission limits (table 4) satisfy and exceed regional haze requirements for the second implementation period and that no other regional haze analyses or regional haze controls will be required by the State during the second regional haze implementation period.

TABLE 3—REASONABLE PROGRESS DETERMINATIONS FOR THE SECOND IMPLEMENTATION PERIOD IN THE COLORADO REGIONAL HAZE SIP—SOURCE CLOSURES <sup>34</sup>

Emission unit	Closure date	Additional requirements/notes
Rawhide Unit 1	December 31, 2029	Maintain existing emission limits until closure.
Martin Drake Unit 6	December 31, 2022	Maintain existing emission limits until closure.
Martin Drake Unit 7	December 31, 2022	Maintain existing emission limits until closure.
Nixon Unit 1	December 31, 2029	Maintain existing emission limits until closure.
Nixon Coal Handling	December 31, 2029	Cessation of coal unloading and crushing.
Comanche Unit 1	December 31, 2022	Maintain existing emission limits until closure.
Comanche Unit 2	December 31, 2025	Maintain existing emission limits until closure. Comply with additional NO <sub>x</sub> and SO <sub>2</sub> limits when Comanche Unit 1 closes—see table 4.
Hayden Unit 1	December 31, 2028	Maintain existing emission limits until closure.
Hayden Unit 2	December 31, 2027	Maintain existing emission limits until closure.
Craig Unit 2	September 30, 2028	Maintain existing emission limits until closure.
Craig Unit 3	December 31, 2029	Maintain existing emission limits until closure.
ColoWyo Coal Mine	December 31, 2031	Not applicable.
Cherokee Unit 4	December 31, 2028	Maintain existing emission limits until closure.

TABLE 4—REASONABLE PROGRESS DETERMINATIONS FOR THE SECOND IMPLEMENTATION PERIOD IN THE COLORADO REGIONAL HAZE SIP—EMISSIONS LIMITS <sup>35</sup>

Emission unit	NO <sub>x</sub> emission limit	SO <sub>2</sub> emission limit	PM emission limit
Nixon Coal Handling	N/A <sup>1</sup>	N/A <sup>1</sup>	1.46 tons PM <sub>10</sub> per year, unloading, transfer, conveying, processing, and crushing (12-month rolling total). Cessation of coal unloading and crushing no later than 12/31/2029.
Nixon—Front Range Power Plant Turbine 1 and Turbine 2.	111 ppmvd at 15% O <sub>2</sub> (4-hour rolling average).	N/A <sup>2</sup>	N/A. <sup>2</sup>
Nixon—Clear Spring Ranch Solids Handling and Disposal Facility (SDHF).	N/A <sup>2</sup>	186.4 lb/hr (12-month rolling calculation). 52.20 tons/year (12-month rolling total). 5,000 ppmv H <sub>2</sub> S in digester gas.	N/A. <sup>2</sup>
Comanche Unit 2 <sup>3</sup>	0.20 lb/MMBtu (30-day rolling average) 3,050 tons/year (12-month rolling average).	0.12 lb/MMBtu (30-day rolling average) 1,830 tons/year (12-month rolling average).	
Comanche Unit 3	0.08 lb/MMBtu (30-day rolling average) 0.07 lb/MMBtu (annual average)	0.10 lb/MMBtu (30-day rolling average)	0.02 lb/MMBtu. 0.012 lb/MMBtu (24-hour average).
Hayden Coal Ash Handling and Disposal and Unpaved Roads.	N/A <sup>1</sup>	N/A <sup>1</sup>	22.39 tons/year from coal ash, sorbent loading, unloading only (12-month rolling total).
Cherokee Turbine 5	Applicable limits in 40 CFR 60.4300 Table 1 (NSPS KKKK).	N/A <sup>2</sup>	0.1 lb/MMBtu.
Cherokee Turbine 6	Applicable limits in 40 CFR 60.4300 Table 1 (NSPS KKKK).	N/A <sup>2</sup>	0.1 lb/MMBtu.
Pawnee Unit 1	0.07 lb/MMBtu (30-day rolling average)	0.11 lb/MMBtu (30-day rolling average)	0.03 lb/MMBtu.
Pawnee Cooling Tower	N/A <sup>1</sup>	N/A <sup>1</sup>	36.5 tons/year (12-month rolling total).
Manchief Turbine 1	15 ppmvd at 15% O <sub>2</sub> (1-hr average) 100 ppmvd at 15% O <sub>2</sub> and 186 lb/hr during startup (1-hour average). 100 ppmvd at 15% O <sub>2</sub> and 140 lb/hr during shutdown (1-hour average). 25 ppmvd at 15% O <sub>2</sub> low load operation between March 1 and October 31 (1-hour average).	N/A <sup>2</sup>	N/A. <sup>2</sup>

<sup>33</sup> Colorado 2022 SIP submission at 56.

<sup>34</sup> Colorado Regulation Number 23, Part A, IV.F.1.

<sup>35</sup> Colorado Regulation Number 23, Part A, IV.F.3.

TABLE 4—REASONABLE PROGRESS DETERMINATIONS FOR THE SECOND IMPLEMENTATION PERIOD IN THE COLORADO REGIONAL HAZE SIP—EMISSIONS LIMITS<sup>35</sup>—Continued

Emission unit	NO <sub>x</sub> emission limit	SO <sub>2</sub> emission limit	PM emission limit
Manchief Turbine 2 .....	15 ppmvd at 15% O <sub>2</sub> (1-hr average) .... 100 ppmvd at 15% O <sub>2</sub> and 186 lb/hr during startup (1-hour average). 100 ppmvd at 15% O <sub>2</sub> and 140 lb/hr during shutdown (1-hour average). 25 ppmvd at 15% O <sub>2</sub> low load operation between March 1 and October 31 (1-hour average).	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
CEMEX Lyons Kiln .....	1.85 lb/ton of clinker (30-day rolling average). 901.0 tons/year (12-month rolling average).	25.3 lb/hour (12-month rolling average) 95.0 tons/year (12-month rolling total).	N/A. <sup>2</sup>
CEMEX Dowe Flats and Lyons Quarries.	N/A <sup>1</sup> .....	N/A <sup>1</sup> .....	58.4 tons/year (Dowe Flats Quarry, 12-month rolling total). Current permitted limit for Lyons Quarry below 10 tons/year screening threshold.
CEMEX Raw Materials Grinding .....	N/A <sup>1</sup> .....	N/A <sup>1</sup> .....	Reporting based on the following factors: S010 (Raw Mill)—0.012 lb/ton of clinker S011 (Raw Mill Air Separator)—0.032 lb/ton of clinker. S012 (Raw Mill Weigh Feeders)—0.019 lb/ton of clinker. S013 (Iron/Silica Feed Belt)—0.0031 lb/ton of clinker.
Holcim Florence Kiln .....	2.73 lb/ton of clinker (30-day rolling average). 2,086.8 tons/year (12-month rolling total).	1.3 lb/ton of clinker (30-day rolling average). 721.4 tons/year (12-month rolling total)	247.6 tons/year (12-month rolling total).
Holcim Florence Quarry .....	N/A <sup>2</sup> .....	N/A <sup>2</sup> .....	67.3 tons/year (12-month rolling total).
Holcim Florence Finish Mill .....	N/A <sup>1</sup> .....	N/A <sup>1</sup> .....	34.3 tons/year (12-month rolling total).
GCC Pueblo Kiln .....	2.70 lb/ton of clinker (30-day rolling average). 2.32 lb/ton of clinker (12-month rolling average). 1,100 tons/year (12-month rolling average).	N/A <sup>2</sup> .....	36.01 tons/year (Filterable, 12-month rolling total). 293.56 tons/year (Condensable, 12-month rolling total).
GCC Pueblo Clinker Cooler .....	N/A <sup>1</sup> .....	N/A <sup>1</sup> .....	33.92 tons/year (12-month rolling total).
Molson Coors Boiler Support Facility Boiler 1.	0.20 lb/MMBtu .....	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
Molson Coors Boiler Support Facility Boiler 2.	625.4 tons/year (Combined 12-month rolling total for Boilers 1, 2, 4, and 5). 0.20 lb/MMBtu .....	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
Molson Coors Boiler Support Facility Boiler 4.	625.4 tons/year (Combined 12-month rolling total for Boilers 1, 2, 4, and 5). 0.12 lb/MMBtu (30-day rolling average) 242.9 tons/year (12-month rolling total, Boiler 4 only). 625.4 tons/year (Combined 12-month rolling total for Boilers 1, 2, 4, and 5).	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
Molson Coors Boiler Support Facility Boiler 5.	0.10 lb/MMBtu (30-day rolling average) 256.3 tons/year (12-month rolling total, Boiler 5 only). 625.4 tons/year (Combined 12-month rolling total for Boilers 1, 2, 4, and 5).	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Electric Arc Furnace (EAF) .....	0.28 lb/ton of steel (30-day rolling average). 189.0 tons/year (12-month rolling total)	0.15 lb/ton of steel (30-day rolling average). 101.25 tons/year (12-month rolling total).	0.0018 grains/dscf (filterable). 0.0052 grains/dscf (filterable+condensable). 163.11 tons/year (12-month rolling total).
EVRAZ Ladle Metallurgy Station (LMS)	84.1 tons/year (12-month rolling total) ..	2 tons/day (3-hour rolling average) .....	N/A. <sup>2</sup>
EVRAZ Round Caster .....	35.6 tons/year (12-month rolling total) ..	234.3 tons/year (12-month rolling total)	19.10 tons/year (12-month rolling total).
EVRAZ Seamless Mill Rotary Furnace	169.26 tons/year (12-month rolling total).	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Seamless Mill Quench Furnace	Reporting based on 280 lbs/MMscf AP-42 emission factor.	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Seamless Mill Tempering Furnace.	Reporting based on 280 lbs/MMscf AP-42 emission factor.	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Rod/Bar Mill Furnace .....	0.07 lb/MMBtu .....	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Rail Mill Furnace .....	30.28 tons/year (12-month rolling total) 0.07 lb/MMBtu (30-day rolling average) 32.34 tons/year (12-month rolling total)	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Haul Roads .....	N/A <sup>1</sup> .....	N/A <sup>1</sup> .....	Compliance with Fugitive Dust Control Plan.
EVRAZ Vacuum Tank Degasser Boiler	16.21 tons/year (12-month rolling total)	N/A <sup>2</sup> .....	N/A. <sup>2</sup>
EVRAZ Ladle Preheaters .....	23.91 tons/year (12-month rolling total, combined for 6 preheaters).	N/A <sup>2</sup> .....	N/A. <sup>2</sup>

TABLE 4—REASONABLE PROGRESS DETERMINATIONS FOR THE SECOND IMPLEMENTATION PERIOD IN THE COLORADO REGIONAL HAZE SIP—EMISSIONS LIMITS<sup>35</sup>—Continued

Emission unit	NO <sub>x</sub> emission limit	SO <sub>2</sub> emission limit	PM emission limit
Rocky Mountain Bottle Company Furnaces B+ and C (common stack).	157.8 tons/year (12-month rolling total)	114.8 tons/year (12-month rolling total)	0.27 lb/ton of glass (Performance testing every 5 years). 38.7 tons/year (filterable + condensable, 12-month rolling total). 85.4 tons/year (12-month rolling total).
Suncor Plant 1 Fluidized Catalytic Cracking Unit Catalyst Regenerator (FCCU).	58.7 ppmvd at 0% O <sub>2</sub> (365-day rolling average).	25 ppmvd at 0% O <sub>2</sub> (365-day rolling average).	
Suncor Plant 2 Fluidized Catalytic Cracking Unit Catalyst Regenerator (FCCU).	160 ppmvd at 0% O <sub>2</sub> (7-day rolling average). 80 ppmvd at 0% O <sub>2</sub> (365-day rolling average).	37.2 ppmvd at 0% O <sub>2</sub> (365-day rolling average).	53.1 tons/year (12-month rolling total).
Suncor Plant 1 Sulfur Recovery Unit Tail Gas Unit (SRC TGU).	N/A <sup>2</sup>	59.7 tons/year (12-month rolling total)	N/A. <sup>2</sup>
Suncor Plant 2 Sulfur Recovery Unit Tail Gas Incinerator (SRC TGI).	N/A <sup>2</sup>	1.20% volume SO <sub>2</sub> (12-hour rolling average) <sup>4</sup> . 271 tons/year (12-month rolling total). 120 tons/year (12-month rolling total). <sup>5</sup> Optimization no later than 12/31/2023 and compliance with 12-month rolling total 12 months after optimization is complete and no later than 12/31/2024. Application for permit modifications and limits based on operating data no later than 18 months after optimization project implementation or comply with alternative. <sup>6</sup> .	N/A. <sup>2</sup>
Suncor Plant 1 Main Plant Flare		162 ppmv H <sub>2</sub> S (3-hour rolling average)	N/A. <sup>2</sup>
Suncor Heater H-11	12.78 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-17	24.83 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-27	32.84 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-28/29/30	20.40 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-37	10.41 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-101	55.85 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-402	21.16 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Heater H-2101	52.19 tons/year (12-month rolling total)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Boiler 4	0.06 lb/MMBtu (30-day rolling average)	N/A <sup>2</sup>	N/A. <sup>2</sup>
Suncor Boiler 505	0.044 lb/MMBtu (30-day rolling average).	N/A <sup>2</sup>	N/A. <sup>2</sup>

<sup>1</sup> This pollutant is not emitted.

<sup>2</sup> Emissions did not meet the screening threshold. Thus, this unit was not subject to a four-factor analysis for this pollutant.

<sup>3</sup> Compliance with NO<sub>x</sub> and SO<sub>2</sub> emission limits beginning when Comanche Unit 1 closes and until Comanche Unit 2 closes.

<sup>4</sup> Beginning February 14, 2022, the Plant 2 sulfur recovery unit tail gas incinerator will meet a 1.20% volume SO<sub>2</sub> (12-hour rolling average) and an annual SO<sub>2</sub> limit of 271 tons per year (12-month rolling total).

<sup>5</sup> The owner/operator must implement optimization of air flow through the Plant 2 sulfur recovery unit no later than December 31, 2023. The Plant 2 sulfur recovery unit tail gas incinerator will meet an SO<sub>2</sub> limit of 120 tons per year (12 month rolling total) within twelve (12) months after optimization and by no later than December 31, 2024.

<sup>6</sup> Alternative for Suncor Plant 2 sulfur recovery unit tail gas incinerator: If the owner/operator fails to implement air flow optimization or fails to achieve the limit by the specified timeline, the owner/operator will install SUPERCLAUS 2+1 on the sulfur recovery unit by no later than December 31, 2028. The sulfur recovery unit must achieve at least a 98.65% sulfur recovery efficiency, by no later than December 31, 2029. The sulfur recovery unit tail gas incinerator will meet an SO<sub>2</sub> limit of 120 tons per year (12-month rolling total) within twelve (12) months after SUPERCLAUS 2+1 installation and by no later than December 31, 2029.

According to Colorado’s 2022 SIP submission, each source must comply as expeditiously as practicable with the limits and averaging times, record keeping, and reporting requirements in addition to its applicable permit requirements, but in no event later than five years after EPA approval of Colorado’s 2022 SIP submission.<sup>36</sup>

Section 51.308(f)(2) of the RHR requires states to include in their SIPs the enforceable emission limitations, compliance schedules, and other measures necessary to make reasonable progress. In addition to what is required by the RHR, general SIP requirements mandate that the SIP must also include adequate monitoring, recordkeeping, and reporting requirements for the regional haze emission limits and

requirements. (See CAA section 110(a)). Colorado’s 2022 SIP submission requires that sources maintain control equipment or operational practices required to comply with the limits and averaging times, recordkeeping, and reporting requirements, and establish procedures to ensure that such equipment or operational practices are properly operated and maintained.<sup>37</sup> Tables 3 and 4 specify reasonable progress emission limits and compliance schedules found in Colorado Regulation Number 23, Part A, IV. *Regional Haze Determinations*, which was submitted as part of Colorado’s 2022 SIP submission.

Colorado’s 2022 SIP submission also included Colorado Regulation Number 23, Part A, V. *Monitoring*,

*Recordkeeping, and Reporting for Regional Haze Limits* which specifies the monitoring, recordkeeping, and reporting requirements for the State’s regional haze determinations. Specifically, for NO<sub>x</sub> and SO<sub>2</sub> emission limits, sources with continuous emission monitoring systems (CEMS) must operate and maintain CEMS in accordance with relevant EPA regulations, in particular, 40 CFR part 75 or 40 CFR part 60. Sources without NO<sub>x</sub> and SO<sub>2</sub> emission CEMS are required to use stack testing, fuel sampling, fuel consumption, and associated emission factors, as applicable, and in accordance with EPA and ASTM test methods. For PM emission limits, sources must perform testing in accordance with EPA approved test methods, in particular, 40 CFR part 60 or 40 CFR part 63, and

<sup>36</sup> Colorado Regulation Number 23, Part A, IV.F.4.

<sup>37</sup> *Id.*

other PM monitoring/compliance determinations, as applicable, including compliance assurance monitoring plans developed and approved in accordance with 40 CFR part 64. In addition, sources must keep relevant records for five years and report relevant emissions.

b. The EPA's Evaluation of Colorado's Long-Term Strategy Four-Factor Analysis

Section 169A(b)(2) of the CAA requires each state in which any Class I area is located or "the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area to have a plan for making reasonable progress toward the national visibility goal. CAA section 169A(g)(1) specifies: "[I]n determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements."<sup>38</sup> The RHR implements this statutory requirement in 40 CFR 51.308(f) for the second and subsequent planning periods for regional haze. 40 CFR 51.308(f) requires states to submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I area within the state and for each mandatory Class I area located outside the state that may be affected by emissions from the state. 40 CFR 51.308(f)(2)(i) lays out the CAA 169A four-factor criteria for the evaluation and development of the long-term strategy.

Based on the EPA's review, we find that Colorado's 2022 SIP submission satisfies the requirements of 40 CFR 51.308(f)(2)(i) insofar as Colorado's selection of nineteen sources, evaluation of the cost of compliance, time necessary for compliance, remaining useful life of any potentially affected sources statutory factors, and determinations of the emission reductions necessary to make reasonable progress contained in table 4 of section IV.C.1.a of this document, were reasonable. However, we find that Colorado's long-term strategy does not adequately consider the "energy and nonair quality environmental impacts of compliance" statutory factor as it pertains to the enforceable source closures contained in table 3 of section IV.C.1.a. of this document.

With respect to source selection, Colorado followed and provided a

detailed description of the WRAP Reasonable Progress Screening protocol the State used to determine sources subject to four-factor analysis.<sup>39</sup> Applying this protocol, Colorado selected nineteen sources for analysis. As previously stated, 40 CFR 51.308(f)(2)(i) requires that a state's SIP submission include a "description of the criteria it used to determine which sources or groups of sources it evaluated," and it must be appropriately documented, as required by 40 CFR 51.308(f)(2)(iii). In addition, states may rely on technical information developed by the RPOs of which they are members to select sources for four-factor analysis and to conduct that analysis, as well as to satisfy the documentation requirements under 40 CFR 51.308(f). Where an RPO has performed source selection and/or four-factor analyses (or considered the five additional factors in 40 CFR 51.308(f)(2)(iv)) for its member states, those states may rely on the RPO's analyses for the purpose of satisfying the requirements of 40 CFR 51.308(f)(2)(i) so long as the states have a reasonable basis to do so and all state participants in the RPO process have approved the technical analyses.<sup>40</sup> Because Colorado provided a detailed description of how the State used technical information to select a reasonable set of sources for an analysis of control measures for the second implementation period and reasonably relied on the selection of sources from the WRAP analysis, we find that Colorado's source selection was reasonable and consistent with the requirements of 40 CFR 51.308(f)(2).

Colorado submitted four-factor analyses for the selected sources and demonstrated that its determination of controls necessary for reasonable progress, and ultimately for inclusion in its long-term strategy, were an outgrowth of its consideration of the four statutory factors in accordance with 40 CFR 51.308(f)(2)(i). Ultimately, Colorado's 2022 SIP submission included both emission limits at fourteen facilities (covering over seventy emission units) and enforceable closures for already announced retirements at an additional eight facilities across 13 units in its long-term strategy under the regional haze program.

These measures are codified in Colorado Regulation Number 23, Part A, IV. *Regional Haze Determinations*. The State also included compliance schedules and other measures (*i.e.*, recordkeeping and reporting) codified in Colorado Regulation Number 23, Part A,

V. *Monitoring, Recordkeeping, and Reporting for Regional Haze Limits*.

The EPA reviewed the State's long-term strategy to address regional haze visibility impairment for each Class I area affected by emissions from the State and concluded that the long-term strategy contains the enforceable emission limitations, compliance schedules, and other measures that are necessary to make reasonable progress. The State included in its implementation plan a description of the criteria it used to determine which sources it evaluated and how the four factors were taken into consideration in selecting the measures for inclusion in its long-term strategy as well as adoption of the emission limitations and compliance schedules codified in Colorado Regulation Number 23, Part A, IV. *Regional Haze Determinations* and Colorado Regulation Number 23, Part A, V. *Monitoring, Recordkeeping, and Reporting for Regional Haze Limits*. Because the State evaluated and determined the emission reduction measures contained in table 4 of section IV.C.1.a of this document that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance and the remaining useful life of the sources selected in accordance with 40 CFR 51.308(f)(2)(i), we find that Colorado's determination of the emission reduction measures contained in table 4 of section IV.C.1.a of this document that are necessary to make reasonable progress was reasonable and consistent with the requirements of 40 CFR 51.308(f)(2)(i).

However, the EPA proposes to partially disapprove Colorado's long-term strategy to the extent the SIP includes insufficiently justified enforceable source closures. As detailed in the paragraphs below, the EPA has substantial concerns that these enforceable source closures are inconsistent with applicable regulations and CAA sections 110 and 169A, including because the State has not provided necessary assurances that the enforceable closures would not violate State and Federal law as required by CAA section 110(a)(2)(E)(i).

First, we find that Colorado's long-term strategy did not adequately consider the energy impacts associated with the source closures contained in table 3 of section IV.C.1.a. of this document and therefore does not fully satisfy the requirements of CAA section 169A(g)(1) and 40 CFR 51.308(f)(2)(i). More specifically, we find Colorado did not sufficiently assess the closures'

<sup>38</sup> We refer to the CAA section 169A(g)(1) requirements as the four factors.

<sup>39</sup> Colorado 2022 SIP Submission at 51–52.

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

impacts on maintaining grid reliability and utilities' ability to meet energy demand. This finding is supported by documentation from an electrical utility regarding risk to energy availability and grid reliability due to source closures incorporated into Colorado's long-term strategy.

Colorado's 2022 SIP submission partially addressed the "energy and nonair quality environmental impacts of compliance" statutory factor by describing the increasing need to fluctuate the utilization of traditional, coal-fired power plants, which have historically provided baseload electric generating capacity, to balance the inherent variability of available capacity generated from renewable resources. Thus, as more baseload coal-fired power plant units retire, more renewable generation will be added to the grid, thereby increasing the demands on remaining baseload resources to respond to variations in electrical load and maintain a balanced grid.<sup>41</sup> According to the State, "[m]aintaining grid reliability and meeting demand during this transition is critical to allow for flexibility."<sup>42</sup> However, the State did not adequately evaluate and address grid reliability and electrical demand associated with the closures of the coal-fired power plants. Although the State did recognize that accommodating concerns about grid reliability and electrical demand was "key to the closure date announcements"<sup>43</sup> of the coal-fired power plants, particularly related to the need for further tightening of existing interim emission limits on retiring units, the State's evaluation of the energy and nonair quality environmental impacts of compliance factor did not include how grid reliability and electrical demand was evaluated related to the closure of these units. Nor did the evaluation discuss what safeguards, if any, the State considered to ensure concerns about grid reliability and electrical demand would be addressed.

During the EPA's review of Colorado's assessment of its long-term strategy's energy impacts, the EPA learned some of those closures were more likely to impair grid reliability than had been previously evaluated. For example, Colorado Springs Utilities submitted information to the EPA on April 2, 2025, regarding the enforceable closure of Nixon Unit 1 in Colorado's 2022 SIP

submission.<sup>44</sup> Colorado Springs Utilities asked the EPA to exclude the SIP's proposed closure of Nixon Unit 1 by December 29, 2029, from the EPA's final action on Colorado's 2022 SIP submission. In addition, Colorado Springs Utilities met with the State of Colorado on April 23, 2025, and asked the State to remove the December 29, 2029 closure of Nixon Unit 1 from its submission amid concerns regarding grid reliability.<sup>45</sup> According to Colorado Springs Utilities, the continued operation of Nixon Unit 1 is "critically important" for Colorado Springs Utilities to meet projected electricity demand and thereby ensure the reliability of the electric grid. Furthermore, Colorado Springs Utilities explained that "potentially dire" electric grid reliability impacts would likely result from Nixon Unit 1's retirement. The risks to grid reliability, according to Colorado Springs Utilities, are being driven by increasingly unfavorable market conditions for renewable energy development, the lack of immediately viable electricity transmission developments in Colorado, and increasing load demands for new electricity. Together, these factors compound Colorado Springs Utilities' inability to bring sufficient resources online prior to the Nixon Unit's planned retirement date of December 29, 2029, ultimately resulting in projected capacity deficits of 173 MW in 2030 and 257 MW in 2034, according to the utility.

In addition to accounting for this new information, we reviewed Colorado's assessment of these measures' energy impacts in light of the rise in electricity demand due to the resurgence of domestic manufacturing and the construction of artificial intelligence data processing centers. As noted in Executive Order 14241, this Administration has found as a matter of national interest, national security, and energy policy that power generated from coal resources is critical to addressing this surging demand.<sup>46</sup> In this instance, the EPA finds that Colorado did not adequately account for the energy impacts of including these source closures in its long-term strategy for regional haze as required by the CAA.

Second, even with all source closures removed from the SIP, Colorado is unlikely to contribute to visibility impairment at any Class I areas projected to be above the adjusted 2028 URP.<sup>47</sup> Because Colorado lacked material information about grid reliability, later provided to the EPA by Colorado Springs Utilities, we propose to find the State did not appropriately weigh the energy impacts of the closure measures against its substantial progress toward natural visibility conditions in a manner consistent with issued executive orders' priority on energy generation.

We also propose to find that Colorado has not provided the assurances required by CAA section 110 that implementing the SIP's forced closure provisions is not prohibited by state or federal law. CAA section 110(a)(2)(E)(i) provides that state plans must provide "necessary assurances" that the State "is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof." The best reading of this provision is that the EPA may not approve a SIP that risks violating Federal or State law in the course of implementation. This reading is consistent with the EPA's independent obligation to follow Federal constitutional and statutory law and with the structure of CAA section 110 as a whole, which sets out detailed requirements for state plans and for the EPA's review of such plans. The EPA proposes to find there is a risk that enforceable source closure provisions, without just compensation, would violate the Federal Takings Clause and possibly comparable provisions of State law, and that Colorado has not provided the necessary assurances that such violations would not occur.<sup>48</sup>

Although the application of the Takings Clause is necessarily fact-specific, an unconsented source closure could constitute either a per se or regulatory taking. The EPA notes that there is a lack of controlling precedent on application of the Takings Clause to forced source closures under CAA

<sup>47</sup> As the EPA has announced in recent SIP rulemakings, the Agency is proposing to adopt a policy whereby states that are not contributing to visibility impairment at Class I areas projected to be above the Uniform Rate of Progress are presumed to be making reasonable progress toward natural visibility conditions provided they have considered the four statutory factors. See Air Plan Approval, West Virginia; Regional Haze Plan for the Second Implementation Period, 90 FR 16478 (April 18, 2025); Air Plan Approval; South Dakota; Regional Haze Plan for the Second Implementation Period, 90 FR 20425 (May 14, 2025).

<sup>48</sup> U.S. Const. amends. V, XIV; see also Colo. Const. art. II, § 15.

<sup>41</sup> Colorado 2022 SIP submission at 68.

<sup>42</sup> Colorado 2022 SIP submission at 68, 71, 73, 80, 84, 85, 86, 88, 90, 95, 96, 97, 99.

<sup>43</sup> Colorado Regulation Number 23, Part B at 32.

<sup>44</sup> Colorado Springs Utilities meeting with EPA, April 2, 2025.

<sup>45</sup> Overview of Colorado Springs Utilities meeting with CDPHE, April 23, 2025.

<sup>46</sup> Executive Order 14241, "Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241," The White House (April 8, 2025), <https://www.whitehouse.gov/presidential-actions/2025/04/reinvigorating-america-s-beautiful-clean-coal-industry-and-amending-executive-order-14241/>.

section 110 because states typically do not seek to implement their SIPs in a manner that forces closure on a nonconsenting source.<sup>49</sup> U.S. Supreme Court precedent suggests, however, that the EPA's approval of this course of action could amount to a per se taking. In *Cedar Point Nursery v. Hassid*, 594 U.S. 139 (2021), the U.S. Supreme Court explained that government action that appropriates property "is no less a physical taking because it arises from a regulation." Particularly relevant here, the Court applied the per se bar on uncompensated takings in *Horne v. Department of Agriculture*, 576 U.S. 351 (2015), to a complex regulatory regime that required regulated parties to set aside a portion of their output to achieve governmental aims. The EPA proposes to conclude that Colorado has not provided the necessary assurances required by CAA section 110(a)(2)(E)(i) that the submitted closure provisions would not result in uncompensated per se takings in violation of Federal law.

Relatedly, a total regulatory taking could occur if the closure would fully deprive the source owner of all economic use of the land under the standard described in *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1116 (1992). A partial regulatory taking could occur if the closure inflicted a significant economic impact upon the source owner, undermined distinct, investment-backed expectations, and shared characteristics with actions conventionally regarded as government takings. These factors and how courts should balance them are detailed in *Penn Central Transp. Co. v. New York City*, 438 U.S. 104, 123 (1978), and subsequent cases. The EPA proposes to find that Colorado has not provided the necessary assurances required by CAA section 110(a)(2)(E)(i) that Federal law would not prohibit the State from implementing the submitted closure provisions, including whether such uncompensated source closures would amount to a taking without just compensation.

Finally, the EPA also proposes to conclude that the forced source closure contained in this portion of the State's submission is inconsistent with the structure of CAA sections 110 and 169A, which do not contemplate forced closures as a means to achieve

<sup>49</sup> The EPA is not aware of any prior state submission under CAA section 110 that sought to force closure of a currently operating source without that source's consent. We seek comment on whether any such examples exist and request that commenters identify such an example with enough specificity to allow us to evaluate the circumstances in which such a forced closure was attempted through a CAA section 110 submission.

compliance. In this context, we are referring to a source closure opposed by the source in question that would be made federally enforceable as a result of a SIP approval. The EPA is referring to such a closure as "unconsented" or "forced."

CAA section 110(a)(1)(A) provides that, as a general matter, a SIP must "include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights)" as "may be necessary or appropriate to meet the applicable requirements of this chapter." The EPA is proposing that the ordinary meaning of "emission limitations" does not include forced closures that prohibit all operations against the will of the owner/operator, or in a timeframe unconsented to by the owner/operator. Similarly, we are proposing that the best reading of the phrase "other control measures, means, or techniques" does not encompass the authority to force a source to close, or to close on timeframe not agreed to by the owner/operator. This proposal is supported by reading the terms "measures" and "means" in context and informed by the surrounding statutory terms, including the parenthetical phrase discussing market-based incentives that contemplate ongoing operations. "Measures" and "means" must also be "necessary or appropriate" to meet applicable CAA requirements. As noted above, the EPA is proposing that unconsented closures are neither "necessary" under the circumstances here nor otherwise required by the CAA, and that such closures are not "appropriate" when they could amount to an uncompensated taking in violation of Federal and State law. The EPA seeks comment on this interpretation.

CAA section 169A similarly does not contemplate use of unconsented closures as part of the regional haze program. The statute provides that state plans must contain "emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress," including through the use of "retrofit technology" and long-term strategies. Consistent with the interpretation of CAA section 110 proposed above, the EPA proposes that the best reading of the statute does not require or authorize the use of forced source closures to attain the statutory goals listed in CAA section 169A. The EPA seeks comment on this interpretation as well.

The EPA notes that at least one of the sources slated for closure in the SIP—Nixon Unit 1—has expressly stated that

it does not consent to closing by the enforceable deadline. Additionally, we note that the North American Electric Reliability Corporation (NERC) stated in their 2024 Long-Term Reliability Assessment that "most of the North American bulk power system faces mounting resource adequacy challenges over the next 10 years as surging demand growth continues and thermal generators announce plans for retirement." Ultimately, according to NERC, "[t]he trends point to critical reliability challenges facing the industry: satisfying escalating energy growth, managing generator retirements, and accelerating resource and transmission development."<sup>50</sup> Industry assessments relied on by Colorado utilities indicate that increasing energy demand in the region may cause additional sources to reverse course on previously agreed-to closure provisions, and Colorado has not sufficiently addressed the legal implications of forcing these plants to close under the SIP provisions submitted by the State.

In summary, we are proposing to partially disapprove Colorado's long-term strategy under CAA section 169A and 40 CFR 51.308(f)(2)(i) because Colorado's 2022 SIP submission does not adequately consider the energy impacts associated with the state's enforceable source closures of coal and gas-fired power plants and associated units to energy availability and grid reliability and contains provisions that are inconsistent with the CAA and its implementing regulations. Our proposed disapproval would encompass, and therefore decline to incorporate, the enforceable source closures contained in Colorado's 2022 SIP submission (listed in table 3 of section IV.C.1.a. of this document) and in Colorado's Regulation Number 23.<sup>51</sup> If we receive information during the comment period that a source is permanently decommissioned (*i.e.*, rendered fully inoperable and its operating permit has been revoked), we could reevaluate our proposed disapproval of these units.

Despite our proposed partial disapproval of the State's long-term strategy as it pertains to source closures, we find that the regional haze requirements are satisfied by the portion of Colorado's 2022 SIP submission that we are approving. Therefore, because no outstanding obligations remain, there

<sup>50</sup> North American Electric Reliability Corporation, *2024 Long-Term Reliability Assessment*, December 2024 at 6.

<sup>51</sup> IV.F.1.; IV.F.3. pertaining to the cessation of coal handling at Nixon, Coal Handling, Hayden Units 1 and 2, and Pawnee Unit 1; IV.F.5.; and IV.F.6.

will be no additional regulatory action needed, either in the form of a federal implementation plan or another SIP revision, as a result of the partial disapproval.

2. Other Long-Term Strategy Requirements

States must meet the additional requirements specified in 40 CFR 51.308(f)(2)(ii)–(iv) when developing their long-term strategies. 40 CFR 51.308(f)(2)(ii) requires states to consult with other states that have emissions that are reasonably anticipated to contribute to visibility impairment in Class I areas to develop coordinated emission management strategies. Chapter 2.3 of Colorado’s 2022 SIP submission describe the State’s consultation with other states throughout the development of its regional haze plan.

40 CFR 51.308(f)(2)(iii) requires states to document the technical basis, including modeling, monitoring, costs, engineering, and emissions information, on which the state is relying to determine the emission reduction measures that are necessary to make reasonable progress in each mandatory Class I area it impacts. The State relied on WRAP technical information, modeling, and analysis to support development of its long-term strategy.<sup>52</sup>

40 CFR 51.308(f)(2)(iv) specifies five additional factors states must consider in developing their long-term strategies. The five additional factors are: emission reductions due to ongoing air pollution control programs, including measures to

address reasonably attributable visibility impairment; measures to mitigate the impacts of construction activities; source retirement and replacement schedules; basic smoke management practices for prescribed fire used for agricultural and wildland vegetation management purposes and smoke management programs; and the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.

Chapter 8.4 of Colorado’s 2022 SIP submission describes each of the five additional factors it is required to consider under 40 CFR 51.308(f)(2)(iv) and explains how it considered them.<sup>53</sup> Pursuant to 40 CFR 51.308(f)(2)(iv)(A), Colorado detailed the existing and ongoing State and Federal emission control programs that contribute to emission reductions, including the designation status for all current and former non-attainment areas.<sup>54</sup> Many of these same measures, particularly the provisions found in Colorado’s Regulation Number 1 and Regulation Number 3, also mitigate the impacts of construction activities as required by 40 CFR 51.308(f)(2)(iv)(B).<sup>55</sup> Pursuant to 40 CFR 51.308(f)(2)(iv)(C), the State considered source retirements schedules in the Colorado 2022 SIP submission<sup>56</sup> as well as in Colorado Regulation Number 23. In considering smoke management as required in 40 CFR 51.308(f)(2)(iv)(D), Colorado explained that it addresses smoke management through its smoke management

program<sup>57</sup> as well as Colorado Regulation Number 9 which addresses open burning, prescribed fire, and permitting.<sup>58</sup> Colorado considered the anticipated net effect of projected changes in emissions on visibility as required by 40 CFR 51.308(f)(2)(iv)(E) by discussing the analytical results from the air quality monitoring, emission inventories, and air quality modeling for the second implementation period that it conducted in collaboration with the WRAP.<sup>59</sup>

After reviewing Colorado’s 2022 SIP submission chapters addressing 40 CFR 51.308(f)(2)(ii)–(iv), the EPA finds that Colorado has satisfied these additional long-term strategy requirements of 40 CFR 51.308(f)(2)(ii)–(iv).

D. Reasonable Progress Goals

Section 51.308(f)(3)(i) requires a state in which a Class I area is located to establish RPGs—one each for the most impaired and clearest days—reflecting the visibility conditions that will be achieved at the end of the implementation period as a result of the emission limitations, compliance schedules and other measures required under paragraph (f)(2) in states’ long-term strategies, as well as implementation of other CAA requirements.

After establishing its long-term strategy, Colorado developed reasonable progress goals for each Class I area for the 20% most impaired days and 20% clearest days based on the results of 2028 WRAP modeling (table 5).<sup>60</sup>

TABLE 5—REASONABLE PROGRESS GOALS FOR THE 20% MOST IMPAIRED DAYS AND 20% CLEAREST DAYS FOR COLORADO CLASS I AREAS

Class I area	20% Most impaired days			20% Clearest days	
	Average baseline conditions (2000–2004)	2028 Unadjusted <sup>1</sup> uniform progress goal	2028 Reasonable progress goal <sup>2</sup>	Average baseline conditions (2000–2004)	2028 Reasonable progress goal
	Deciviews				
Great Sand Dunes .....	9.66	7.58	7.50	4.5	2.44
Mesa Verde .....	9.22	7.21	6.10	4.32	2.01
Mount Zirkel, Rawah .....	7.29	5.64	4.93	1.61	0.02
Rocky Mountain National Park .....	11.12	8.65	7.56	2.29	1.17
Weminuche, La Garita, Black Canyon of Gunnison .....	7.78	6.26	6.03	3.11	1.39
Eagles Nest, Flat Tops, Maroon Bells, White River, West Elk .....	6.30	4.99	4.49	0.70	–0.35

<sup>1</sup> Colorado did not rely on the adjusted URP for either international emissions or international emissions plus wildland prescribed fire.

<sup>2</sup> Based on WRAP 2028OTBa2.

<sup>52</sup> Colorado 2002 SIP submission at 8, 51–52, 150–157.

<sup>53</sup> Colorado 2022 SIP submission at 143–155.

<sup>54</sup> Colorado 2022 SIP submission at 143–147.

<sup>55</sup> Colorado 2022 SIP submission at 148.

<sup>56</sup> Colorado 2022 SIP submission at 59–67; Regulation Number 23, Part A, IV.F.

<sup>57</sup> Consistent with the EPA’s *Interim Air Quality Policy on Wildland Prescribed Fire, May 1998*.

<sup>58</sup> Colorado 2022 SIP submission at 148–150.

<sup>59</sup> Colorado 2022 SIP submission at 150–155.

<sup>60</sup> Colorado 2022 SIP submission at 156.

The reasonable progress goals are based on Colorado's long-term strategy, the long-term strategy of other states that may affect Class I areas in Colorado, and other CAA requirements. Per 40 CFR 51.308(f)(3)(iv), the EPA must evaluate the demonstrations the State developed pursuant to 40 CFR 51.308(f)(2) to determine whether the State's reasonable progress goals for visibility improvement provide for reasonable progress towards natural visibility conditions.

As previously explained in section IV.C.1.b., we are proposing to partially disapprove Colorado's long-term strategy relating to 40 CFR 51.308(f)(2)(i) and the associated source closures. The RPGs in table 5 are based on modeling of the measures included in the long-term strategy, namely the closures of Comanche Units 1 and 2, Craig Unit 1, and Nucla.<sup>61</sup> The closures of Craig Unit 1 and Nucla have already occurred and were previously incorporated into Colorado's federally enforceable SIP.<sup>62</sup> The closures of Comanche Units 1 and 2 are part of Colorado's 2022 SIP submission and are not proposed to be incorporated into this rulemaking. While the RPGs in Colorado's 2022 SIP submission are all below the unadjusted 2028 URP, and Colorado is not known to contribute to any Class I areas that are above the 2028 URP, our proposed action does not include the incorporation of the closures of Comanche Units 1 and 2 into the federally enforceable SIP and therefore may impact whether all Class I areas remain below the URP. The Class I area closest to the URP is Great Sand Dunes where the unadjusted 2028 URP is 7.58 and the 2028 RPG, based on Colorado's long-term strategy which includes the four aforementioned source closures, is 7.50. However, when we evaluate Colorado's 2028 RPG against the *adjusted* glidepaths, either adjusted for international emissions (2028 URP is 8.30) or adjusted for international emissions plus wildland prescribed fire (2028 URP is 8.36), Colorado's 2028 RPG without the closures of Comanche Units 1 and 2 would very likely remain below either adjusted glidepath.<sup>63</sup> If, on the other hand, Colorado's 2028 RPG provides for a slower rate of improvement in visibility due to the absence of the enforceable closures of Comanche Units 1 and 2 in Colorado's federally enforceable SIP, the EPA finds

that in accordance with 40 CFR 51.308(f)(3)(ii)(A), Colorado: (1) demonstrated that there are no additional emission reduction measures that would be reasonable to include in its long-term strategy, and (2) provided a robust demonstration, including documenting the criteria used to determine which sources or groups of sources were evaluated and how the four-factors were taken into consideration in selecting the measures for inclusion in its long-term strategy. Specifically, Colorado selected nineteen sources to evaluate, resulting in over seventy emission control measures in the State's long-term strategy. Given the comprehensive set of sources selected and evaluated, the consideration of the four statutory factors for those sources, and the large number of emission control measures included in the SIP, the EPA agrees that there are no additional emissions reduction measures that would be necessary to include in the long-term strategy. Therefore, no additional requirements apply under 40 CFR 51.308(f)(3)(ii). Based on having satisfied the RPG rule requirements, we propose to approve Colorado's reasonable progress goals under 40 CFR 51.308(f)(3).

#### *E. Reasonably Attributable Visibility Impairment (RAVI)*

The RHR contains a requirement at 40 CFR 51.308(f)(4) related to any additional monitoring that may be needed to address visibility impairment in Class I areas from a single source or a small group of sources. This is called "reasonably attributable visibility impairment,"<sup>64</sup> also known as RAVI. Under this provision, if the EPA or the FLM of an affected Class I area has advised a state that additional monitoring is needed to assess RAVI, the state must include in its SIP revision for the second implementation period an appropriate strategy for evaluating such impairment. The EPA has not advised the State to that effect; nor did the State indicate that FLMs for Great Sand Dunes National Park, Mesa Verda National Park, Mount Zirkel Wilderness, Rawah Wilderness, Rocky Mountain National Park, Weminuche Wilderness, Black Canyon of Gunnison NP, La Garita Wilderness, Eagles Nest Wilderness, Flat Tops Wilderness, Maroon Bells-Snowmass Wilderness, and West Elk Wilderness identified any RAVI from Colorado sources. For this reason, the EPA proposes to approve the portions of

Colorado's 2022 SIP submission relating to 40 CFR 51.308(f)(4).

#### *F. Monitoring Strategy and Other State Implementation Plan Requirements*

Section 51.308(f)(6) specifies that each comprehensive revision of a state's regional haze SIP must contain or provide for certain elements, including monitoring strategies, emissions inventories, and any reporting, recordkeeping and other measures needed to assess and report on visibility. A main requirement of this section is for states with Class I areas to submit monitoring strategies for measuring, characterizing, and reporting on visibility impairment. Compliance with this requirement may be met through participation in the IMPROVE network.

Under 40 CFR 51.308(f)(6)(i), states must provide for the establishment of additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the state are being achieved. For states with Class I areas (including Colorado), 40 CFR 51.308(f)(6)(ii) requires SIPs to provide for procedures by which monitoring data and other information are used in determining the contribution of emissions from within the state to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the state. Section 51.308(f)(6)(iv) requires the SIP to provide for the reporting of all visibility monitoring data to the Administrator at least annually for each Class I area in the state. 40 CFR 51.308(f)(6)(v) requires SIPs to provide for a statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment, including emissions for the most recent year for which data are available. Section 51.308(f)(6)(v) also requires states to include estimates of future projected emissions. Finally, 40 CFR 51.308(f)(6)(vi) requires the SIP to provide for any other elements, including reporting, recordkeeping, and other measures, that are necessary for states to assess and report on visibility.

Colorado describes its participation in the IMPROVE network, which comprises 110 monitoring sites across the nation, six of which are in Colorado. The State relied on the IMPROVE monitoring network to assess visibility at Class I areas across Colorado<sup>65</sup> and considered the six monitoring sites GRSA1, MEVE1, MOZI1, ROMO1, WEMI1 and WHRI1 to be adequate for

<sup>61</sup> Colorado 2022 SIP submission at 150.

<sup>62</sup> 83 FR 31332 (July 5, 2018).

<sup>63</sup> WRAP, Visibility Progress and Projections. "Adjustments to Uniform Rate of Progress Glidepath—Most Impaired Days. Great Sand Dunes." <https://views.cira.colostate.edu/tssv2/Express/ModelingTools.aspx>.

<sup>64</sup> The EPA's visibility protection regulations define "reasonably attributable visibility impairment" as "visibility impairment that is caused by the emission of air pollutants from one, or a small number of sources." 40 CFR 51.301.

<sup>65</sup> Colorado 2022 SIP submission at 12–17.

assessing reasonable progress goals at the State's twelve Class I areas.<sup>66</sup> Using the monitoring data procedures described in its 2022 SIP submission along with other technical information supplied by WRAP,<sup>67 68</sup> the State determined the contribution of in-State emissions to Class I areas inside and outside Colorado.<sup>69</sup> In addition, the State also provided a statewide inventory of emissions that are reasonably anticipated to cause or contribute to visibility impairment in Class I areas; the State relied primarily on 2014–2018 data but also estimated future projected emissions.<sup>70</sup>

The EPA finds that Colorado has met the requirements of 40 CFR 51.308(f)(6), including through its continued participation in the IMPROVE network and WRAP RPO and its ongoing compliance with the Air Emissions Reporting Requirements (AERR). There is no indication that further SIP elements are necessary at this time for Colorado to assess and report on visibility. Therefore, the EPA proposes to approve the monitoring strategy and other state implementation plan elements of Colorado's 2022 SIP submission as meeting the requirements of 40 CFR 51.308(f)(6).

#### *G. Requirements for Periodic Reports Describing Progress Towards the Reasonable Progress Goals*

40 CFR 51.308(f)(5) requires that periodic comprehensive revisions of states' regional haze plans also address the progress report requirements of 40 CFR 51.308(g)(1) through (5). The purpose of these requirements is to evaluate progress towards the applicable RPGs for each Class I area within the state and each Class I area outside the state that may be affected by emissions from within that state. Sections 51.308(g)(1) and (2) apply to all states and require a description of the status of implementation of all measures included in a state's first implementation period regional haze plan and a summary of the emission reductions achieved through implementation of those measures. Section 51.308(g)(3) applies only to states with Class I areas within their borders and requires such states to assess current visibility conditions, changes in visibility relative to baseline

(2000–2004) visibility conditions, and changes in visibility conditions relative to the period addressed in the first implementation period progress report. Section 51.308(g)(4) applies to all states and requires an analysis tracking changes in emissions of pollutants contributing to visibility impairment from all sources and sectors since the period addressed by the first implementation period progress report. This provision further specifies the year or years through which the analysis must extend depending on the type of source and the platform through which its emission information is reported. Finally, 40 CFR 51.308(g)(5), which also applies to all states, requires an assessment of any significant changes in anthropogenic emissions within or outside the state that have occurred since the period addressed by the first implementation period progress report, including whether such changes were anticipated and whether they have limited or impeded expected progress towards reducing emissions and improving visibility.

In its 2022 SIP submission,<sup>71</sup> Colorado included the elements of the periodic progress report specified in 40 CFR 51.308(f)(5) and 40 CFR 51.308(g)(1)–(5). Colorado summarized the facility improvements made during and after the first implementation period, including emission control measures installed and emission reductions achieved by the facilities that most affected each Class I area, and summarized the associated emission reductions.<sup>72</sup> In addition, the State summarized the implementation status of ongoing air pollution control programs, measures to mitigate construction activities, source retirement and replacement schedules, and smoke management practices and programs.<sup>73</sup> The EPA finds that Colorado has met the requirements of 40 CFR 51.308(g)(1) and (2) because Colorado's 2022 SIP submission describes the measures included in the long-term strategy from the first implementation period, as well as the status of their implementation and the emission reductions achieved through such implementation.

Visibility conditions (in deciviews) are reported in Colorado's 2022 SIP submission for the most impaired and clearest days. Visibility conditions are expressed in terms of 5-year averages for the baseline period (2000–2004), 2010–

2014 period, and current period (2015–2019), as well as the progress made since the baseline period ((2000–2004)–(2015–2019)) and during the last implementation period ((2010–2014)–(2015–2019)) for each Class I area.<sup>74</sup> The EPA therefore finds that Colorado has satisfied the requirements of 40 CFR 51.308(g)(3).

The State used the most current emissions inventory available—the 2017 NEI—to provide emissions inventories for NO<sub>x</sub>, SO<sub>2</sub>, VOC, ammonia (NH<sub>3</sub>), and PM that identify the type of source, activity, and pollutant.<sup>75</sup> Colorado also provided an assessment and discussion of the significant changes in anthropogenic emissions since the first implementation period.<sup>76</sup> The EPA finds that the requirements of 40 CFR 51.308(g)(4) and (g)(5) are satisfied by providing emissions of pollutants contributing to visibility impairment within the State and assessing any significant changes in anthropogenic emissions within or outside the State that have occurred since the period addressed in the most recent plan.

Because Colorado's 2022 SIP submission addresses the requirements of 40 CFR 51.308(g)(1) through (5), the EPA finds that Colorado has met the progress report requirements of 40 CFR 51.308(f)(5). Therefore, we propose to approve Colorado's 2022 SIP submission as meeting the requirements of 40 CFR 51.308(f)(5) and 40 CFR 51.308(g) for periodic progress reports.

#### *H. Requirements for State and Federal Land Manager Coordination*

Section 169A(d) of the CAA requires states to consult with FLMs before holding the public hearing on a proposed regional haze SIP, and to include a summary of the FLMs' conclusions and recommendations in the notice to the public. In addition, the 40 CFR 51.308(i)(2) FLM consultation provision requires a state to provide FLMs with an opportunity for consultation that is early enough in the state's policy analyses of its emission reduction obligation so that information and recommendations provided by the FLMs can meaningfully inform the state's decisions on its long-term strategy. If the consultation has taken place at least 120 days before a public hearing or public comment period, the opportunity for consultation will be deemed early enough. Regardless, the opportunity for consultation must be

<sup>66</sup> *Id.* at 12–16.

<sup>67</sup> *Id.* at 13.

<sup>68</sup> Colorado relied on the WRAP Technical Support System (TSS) "Analysis and Planning" section to determine baseline, natural, and current conditions for Class I areas in Colorado. <https://views.cira.colostate.edu/tssv2/>.

<sup>69</sup> Colorado 2022 SIP submission at 13 and 143.

<sup>70</sup> *Id.* at 13, 17 and 29–38.

<sup>71</sup> Colorado's June 2023 supplement contained the elements of the periodic progress report.

<sup>72</sup> Colorado 2022 SIP submission, Regional Haze Progress Report at E–1–E–11.

<sup>73</sup> Colorado 2022 SIP submission, Regional Haze Progress Report at E–4–E–8.

<sup>74</sup> Colorado 2022 SIP submission, Regional Haze Progress Report at E–12–E–23.

<sup>75</sup> Colorado 2022 SIP submission, Regional Haze Progress Report at E–26–E–35.

<sup>76</sup> Colorado 2022 SIP submission, Regional Haze Progress Report at E–33–E–35.

provided at least sixty days before a public hearing or public comment period at the state level. Section 51.308(i)(2) also lists two substantive topics on which FLMs must be provided an opportunity to discuss with states: assessment of visibility impairment in any Class I area and recommendations on the development and implementation of strategies to address visibility impairment. Section 51.308(i)(3) requires states, in developing their implementation plans, to include a description of how they addressed FLMs' comments.

Colorado's 2022 SIP submission summarizes the State's consultation and coordination with the FLMs. Colorado consulted and coordinated with the FLMs during the development of its regional haze SIP through WRAP participation and direct FLM engagement. Colorado facilitated both in-person and virtual public stakeholder meetings in 2019 and 2020 to gather input early in the planning stages. The State also held multiple consultations directly with the FLMs in June 2019 to discuss Q/d thresholds and potential sources for analysis. Subsequent discussions occurred in August and October 2020, as well as in April, May, and June 2021 to refine analyses and address concerns raised by FLMs concerning additional control measures. These discussions occurred prior to the State's public hearing on the draft regional haze plan in November 2020. The State also held a public information meeting in August 2021 to provide information on its draft regional haze SIP prior to holding a public hearing in November 2021.<sup>77</sup> The State further shared the regional haze plan's technical support documents with the FLMs.

Colorado took administrative steps to provide the FLMs the opportunity to review and provide feedback on the State's draft regional haze plan. Therefore, the EPA proposes to approve the FLM consultation component of Colorado's SIP submission which meets the requirements of 40 CFR 51.308(i), as outlined in this section.

## V. Proposed Action

The EPA is proposing partial approval and partial disapproval of Colorado's 2022 SIP submission addressing the requirements of the second implementation period of the RHR. Specifically, the EPA is proposing approval for the portions of Colorado's 2022 SIP submission relating to 40 CFR 51.308(f)(1): calculations of baseline, current, and natural visibility

conditions, progress to date, and the uniform rate of progress; 40 CFR 51.308(f)(2)(ii)–(iv): long-term strategy; 40 CFR 51.308(f)(3): reasonable progress goals; 40 CFR 51.308(f)(4): reasonably attributable visibility impairment; 40 CFR 51.308(f)(5) and 40 CFR 51.308(g): progress report requirements; 40 CFR 51.308(f)(6): monitoring strategy and other implementation plan requirements; and 40 CFR 51.308(i): FLM consultation. The EPA is proposing disapproval of portions of Colorado's 2022 SIP submission relating to 40 CFR 51.308(f)(2)(i) and its corresponding regulatory provisions (Colorado Regulation Number 23 section IV.F.1.; IV.F.3. pertaining to the cessation of coal handling at Nixon, Coal Handling, Hayden Units 1 and 2, and Pawnee Unit 1; IV.F.5.; and IV.F.6.). Despite our proposed disapproval of the State's long-term strategy as it pertains to source closures, we find that the regional haze requirements are satisfied by the portion of Colorado's 2022 SIP submission that we are approving. Because no outstanding obligations remain, there will be no additional regulatory action needed, either in the form of a federal implementation plan or another SIP revision, as a result of the partial disapproval. Concurrently, the EPA is proposing to approve a revision to Colorado's SIP that moves the regional haze provisions in Regulation Number 3 to the newly adopted Regulation Number 23. Together, these SIP revisions establish updated emission reduction requirements for NO<sub>x</sub>, SO<sub>2</sub>, and PM emissions from certain reasonable progress sources identified as impacting Class I areas under the RHR for the second ten-year planning period.

## VI. Incorporation by Reference

In this document, the EPA is proposing to include regulatory text in an EPA final rule that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, and as discussed in sections I. through V. of this preamble and set forth below in the proposed amendments to part 52, the EPA is proposing: to remove 5 CCR 1001–05, Regulation Number 3, Part F, Regional Haze Limits—Best Available Retrofit Technology (BART) and Reasonable Progress (RP) and the associated entries for VI. Regional Haze Determinations and VII. Monitoring, Recordkeeping, and Reporting for Regional Haze Limits, from the Colorado SIP; and to incorporate by reference 5 CCR 1001–27, Regulation Number 23, Part A, Regional Haze Limits—Best Available Retrofit Technology (BART) and Reasonable Progress (RP) and the

associated entries for IV. Regional Haze Determinations and V. Monitoring, Recordkeeping, and Reporting for Regional Haze Limits. The EPA has made, and will continue to make, these materials generally available through <https://www.regulations.gov> and at the EPA Region 8 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

## VII. Statutory and Executive Order Reviews

This action proposes to partially approve and partially disapprove state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

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

<sup>77</sup> Colorado 2022 SIP submission at 8–11.

specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Greenhouse gases, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

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

Dated: July 9, 2025.

Cyrus M. Western, Regional Administrator, Region 8.

For the reasons stated in the preamble, the Environmental Protection Agency is proposing to amend 40 CFR part 52 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 G—Colorado

2. Amend § 52.320 by:

- a. In the table in paragraph (c);
i. Removing the center heading "5 CCR 1001–05, Regulation Number 3, Part F, Regional Haze Limits—Best Available Retrofit Technology (BART) and Reasonable Progress (RP)" and the entries "VI. Regional Haze Determinations" and "VII. Monitoring, Recordkeeping, and Reporting for Regional Haze Limits"; and
ii. Adding the center heading "5 CCR 1001–27, Regulation Number 23, Part A,

Regional Haze Limits—Best Available Retrofit Technology (BART) and Reasonable Progress (RP)" and the entries "IV. Regional Haze Determinations" and "V. Monitoring, Recordkeeping, and Reporting for Regional Haze Limits" at the end of the table.

b. In the table in paragraph (e):

i. Adding the entry "Colorado Visibility and Regional Haze State Implementation Plan for the Twelve Mandatory Class I Federal Areas in Colorado, Revised Regional Haze State Implementation Plan for the Second Implementation Period" at the end of the table.

The additions read as follows:

§ 52.320 Identification of plan.

\* \* \* \* \*
(c) \* \* \*

Table with 5 columns: Title, State effective date, EPA effective date, Final rule citation/date, Comments. Row with asterisks in each column.

5 CCR 1001–27, Regulation Number 23, Part A, Regional Haze Limits—Best Available Retrofit Technology (BART) and Reasonable Progress (RP)

Table with 5 columns: Title, State effective date, EPA effective date, Final rule citation/date, Comments. Row 1: IV. Regional Haze Determinations. Row 2: V. Monitoring, Recordkeeping, and Reporting for Regional Haze Limits.

\* \* \* \* \* (e) \* \* \*

Table with 5 columns: Title, State effective date, EPA effective date, Final rule citation/date, Comments. Row with asterisks in each column.

Visibility

Table with 5 columns: Title, State effective date, EPA effective date, Final rule citation/date, Comments. Row: Colorado Visibility and Regional Haze State Implementation Plan for the Twelve Mandatory Class I Federal Areas in Colorado, Revised Regional Haze State Implementation Plan for the Second Implementation Period.

[FR Doc. 2025–13342 Filed 7–15–25; 8:45 am]

BILLING CODE 6560–50-P

**FEDERAL COMMUNICATIONS COMMISSION****47 CFR Parts 0, 1, and 9****[PS Docket Nos. 21–479 and 13–75; DA 25–580; FR ID 302998]****Facilitating Implementation of Next Generation 911 Services (NG911); Improving 911 Reliability****AGENCY:** Federal Communications Commission.**ACTION:** Proposed rule; Extension of comment and reply comment periods.**SUMMARY:** In this document, the Federal Communications Commission (Commission) extends the comment and reply comment periods of the Further Notice of Proposed Rulemaking (FNPRM) in PS Docket Nos. 21–479 and 13–75, FCC 25–21, that was released on March 28, 2025 and published in the **Federal Register** on June 4, 2025.**DATES:** The deadline for filing comments is extended to August 4, 2025, and the deadline for filing reply comments is extended to September 17, 2025.**ADDRESSES:** You may submit comments and reply comments, identified by PS Docket Nos. 21–479 and 13–75, by any of the following methods:

- **Electronic Filers:** Parties may file electronically using the internet by accessing the Commission's Electronic Comment Filing System (ECFS): <https://www.fcc.gov/ecfs>. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998), <https://www.govinfo.gov/content/pkg/FR-1998-05-01/pdf/98-10310.pdf>.

- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing.

- Paper filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. All filings must be addressed to the Secretary, Federal Communications Commission.

- Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive,

Annapolis Junction, MD 20701. Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

- **People with Disabilities:** To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202–418–0530.

**FOR FURTHER INFORMATION CONTACT:**Rachel Wehr, Deputy Division Chief, Policy and Licensing Division, Public Safety and Homeland Security Bureau, (202) 418–1138 or [Rachel.Wehr@fcc.gov](mailto:Rachel.Wehr@fcc.gov), or Chris Fedeli, Attorney Advisor, Policy and Licensing Division, Public Safety and Homeland Security Bureau, (202) 418–1514 or [Christopher.Fedeli@fcc.gov](mailto:Christopher.Fedeli@fcc.gov).**SUPPLEMENTARY INFORMATION:** This is a summary of the Public Safety and Homeland Security Bureau's (Bureau) Order in PS Docket Nos. 21–479 and 13–75; DA 25–580, adopted and released on July 8, 2025. The full text of the Order is available at <https://docs.fcc.gov/public/attachments/DA-25-580A1.pdf>.

**Initial Paperwork Reduction Act of 1995 Analysis:** This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, therefore, it does not contain any proposed information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4).

**Synopsis**

In the Order, the Bureau grants in part a Motion for Extension of Time (Motion) filed jointly on June 17, 2025 by the National Association of State 9–1–1 Administrators (NASNA), the National Emergency Number Association: The 9–1–1 Association (NENA), and the Industry Council for Emergency Response Technologies (iCERT) in PS Docket Nos. 21–479 and 13–75. The Motion seeks an extension of time for filing comments and reply comments in response to the Further Notice of Proposed Rulemaking (FNPRM) that was released on March 28, 2025 proposing and seeking comment on changes to the Commission's 911 reliability rules. The summary of the FNPRM was published in the **Federal Register**, 90 FR 23768 (June 4, 2025). For the reasons stated below, the Bureau finds that the extension request is warranted in part and thus extends the

comment and reply comment deadlines to August 4, 2025 and September 17, 2025, respectively.

The joint filers request a 120-day extension to the comment and reply comment deadlines. The Bureau finds that a more limited extension will be sufficient to accommodate the concerns raised. As set forth in section 1.46 of the Commission's rules, 47 CFR 1.46, the Commission does not routinely grant extensions of time. In this case, however, the Bureau finds that a moderate extension of the initial comment deadline will provide additional time for parties to organize and coordinate their input to the Commission, and increasing the interval between initial comments and replies will create an expanded window for collaborative discussions among parties after the initial comments have been filed.

**Ordering Clauses**

Accordingly, *it is ordered*, that pursuant to 47 U.S.C. 154(i)–(j), and sections 0.204, 0.392, and 1.46 of the Commission's rules, 47 CFR 0.204, 0.392, 1.46, the Motion for Extension of Time is *granted in part and otherwise denied*. *It is further ordered* that the deadline to file comments in this proceeding is *extended* to August 4, 2025, and the deadline to file reply comments is *extended* to September 17, 2025.

Federal Communications Commission.

**Marlene Dortch,**  
Secretary.

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**FEDERAL COMMUNICATIONS COMMISSION****47 CFR Part 2****[ET Docket No. 24–136; FR ID 302403]****Promoting the Integrity and Security of Telecommunications Certification Bodies, Measurement Facilities, and the Equipment Authorization Program****AGENCY:** Federal Communications Commission.**ACTION:** Proposed rule.**SUMMARY:** In this document, the Federal Communications Commission (Commission or FCC) proposes and seeks comment on further measures to safeguard the integrity of the FCC's equipment authorization program. The Commission seeks comment on whether to extend recently adopted prohibitions to include entities subject to the jurisdiction of a foreign adversary or