



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R08-OAR-2019-0177; FRL-9996-60-Region 8]

**Approval and Promulgation of Implementation Plans; Colorado;
Regional Haze 5-Year Progress Report State Implementation Plan**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) proposes to approve Colorado's regional haze progress report, submitted as a revision to its State Implementation Plan (SIP) by the Colorado Department of Public Health and Environment (CDPHE). Colorado's SIP revision addresses requirements of the Clean Air Act (CAA) and the EPA's rules that require states to submit periodic reports describing progress toward Reasonable Progress Goals (RPGs) established for regional haze and a determination of the adequacy of the state's existing plan addressing regional haze. Colorado's progress report explains that Colorado has implemented the measures in the regional haze plan due to be in place by the date of the progress report and that visibility in mandatory federal Class I areas affected by emissions from Colorado sources is improving. The EPA is proposing approval of Colorado's determination that the State's regional haze plan is adequate to meet RPGs for the first implementation period, which extended through 2018 and requires no substantive revision at this time.

DATES: Written comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R08-OAR-2019-0177, 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 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 <http://www2.epa.gov/dockets/commenting-epa-dockets>.

Docket: All documents in the docket are listed in the 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 either electronically in www.regulations.gov or in hard copy at the Air and Radiation Division, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado 80202-1129. The EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding federal holidays.

FOR FURTHER INFORMATION CONTACT: Kate Gregory, Air and Radiation Division, Environmental Protection Agency, Region 8, Mailcode 8ARD-QP, 1595 Wynkoop Street, Denver, Colorado 80202-1129, (303) 312-6175, or by email at gregory.kate@epa.gov.

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

I. Background

States are required to submit progress reports that evaluate progress towards the RPGs for each mandatory federal Class I area¹ (Class I area) within the state and in each Class I area outside the state that may be affected by emissions from within the state. 40 CFR 51.308(g). In addition, the provisions of 40 CFR 51.308(h) require states to submit, at the same time as the 40 CFR 51.308(g) progress report, a determination of the adequacy of the state's existing regional haze plan. The first progress report must take the form of a SIP revision and is due 5 years after submittal of the initial regional haze SIP. Colorado submitted the initial regional haze SIP on May 25, 2011 and EPA approved the SIP on December 31, 2012.²

Twelve Class I areas are located in Colorado: Black Canyon of the Gunnison National Park, Eagles Nest Wilderness Area, Flat Tops Wilderness Area, Great Sand Dunes National Park, La Garita Wilderness Area, Maroon Bells-Snowmass Wilderness Area, Mesa Verde National Park, Mount Zirkle Wilderness Area, Rawah Wilderness Area, Rocky Mountain National Park, Weminuche Wilderness Area and West Elk Wilderness Area.³ Monitoring and data representing visibility conditions in Colorado’s twelve Class I areas is based on the six

¹ Areas designated as mandatory Class I federal areas consist of national parks exceeding 6000 acres, wilderness areas and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977 (42 U.S.C. 7472(a)). Listed at 40 CFR part 81, Subpart D.

² 77 FR 76871 (December 31, 2012), codified at 40 CFR 52.320(c)(108)(i)(C) and 40 CFR 52.320(c)(124) .

³ Colorado Progress Report, p.4.

Interagency Monitoring of Protected Visual Environments (IMPROVE) monitoring sites located across the state.⁴

On May 2, 2016, Colorado submitted a progress report, which detailed the progress made in the first planning period toward implementation of the Long-Term Strategy (LTS) outlined in the 2012 regional haze SIP, the visibility improvement measured at Class I areas affected by emissions from Colorado sources, and a determination of the adequacy of the State's existing regional haze plan. The State provided a public hearing for comment on the Progress Report on November 19, 2015 and provided Federal Land Managers (FLMs) an opportunity to comment on the progress report.⁵ The EPA is proposing to approve Colorado's May 2, 2016 SIP submittal.

II. EPA's Evaluation of Colorado's Progress Report and Adequacy Determination

A. Regional Haze Progress Report

This section describes the contents of Colorado's progress report and the EPA's analysis of the report, as well as an evaluation of the determination of adequacy required by 40 CFR 51.308(h) and the requirement for state and Federal Land Manager coordination in 40 CFR 51.308(i).

1. Status of Implementation of Control Measures

In its Progress Report, Colorado summarizes the emissions reduction measures that were relied upon by Colorado in the regional haze plan for ensuring reasonable progress at the Class I areas within the state. The State's regional haze SIP established RPGs for 2018 and established a

⁴ Colorado Progress Report, p.6.

⁵ Colorado Progress Report, p.38, "Public Comments NPS," "Public Comments USFS," Colorado's responses to those comments, and 'Hearing Notice' available in docket.

LTS.^{6, 7} In its Progress Report, the State describes Federal air pollution control programs, including; engine and auto pollution standards and NO₂, SO₂ and Ozone National Ambient Air Quality Standards (NAAQS).⁸ Additionally, Colorado describes State Regulation 9 as its smoke management program.⁹ Colorado also reviewed the status of Best Available Retrofit Technology (BART) requirements for the BART-eligible and Reasonable Progress (RP) sources in the state. The units subject to BART and RP are listed below in Table 1: Sources Subject to BART and Reasonable Progress in Colorado.

Table 1: Sources Subject to BART and Reasonable Progress in Colorado¹⁰

BART and Reasonable Progress (RP) Eligible Sources	BART and Reasonable Progress (RP) Source Category	BART or Reasonable Progress (RP) Source
Clark Units 1 & 2	EGU	RP
Cherokee Units 1, 2, & 3	EGU	RP
Cherokee Unit 4	EGU	BART
Arapahoe Units 3 & 4	EGU	RP
Valmont Unit 5	EGU	BART
Pawnee Unit 1	EGU	BART
Comanche Units 1 & 2	EGU	BART
Hayden Units 1 & 2	EGU	BART

⁶ 77 FR 18090 (March 26, 2012). Table 43 – Colorado’s URP and RP Goal for 2018.

⁷ 77 FR 76871 (December 31, 2012).

⁸ Colorado Progress Report, p. 17.

⁹ Colorado Progress Report, p. 19. As explained in the Report, Colorado’s smoke management program for open burning and prescribed fire activities are state-only provisions.

Cameo Units 1 & 2	EGU	RP
Craig Units 1 & 2	EGU	BART
Craig Unit 3	EGU	RP
Nucla Unit 4	EGU	RP
Rawhide Unit 101	EGU	RP
Martin Drake Units 5, 6 & 7	EGU	BART
Nixon Unit 1	EGU	RP
Holcim Cement Plant	Portland Cement Plant	RP
Cemex Lyons Kiln and Dyer Cement Plant	Portland Cement Plant	BART
CENC Boiler 3	EGU	RP
CENC Boilers 4 & 5	EGU	BART

¹⁰ 77 FR 76871, 76883 (December 31, 2012).

In its Progress Report, Colorado provides the status of these BART and Reasonable Progress sources in the State. Table 2: Current Status of Colorado Sources Subject to BART and Reasonable Progress, shows emissions reductions from control types, including; selective catalytic reduction (SCR), low NO_x burners (LNB), ultra-low NO_x burners plus overfire air, selective non-catalytic reduction (SCNR), lime spray dryers, dry sorbent injection and wet lime scrubbers.¹¹ As can be seen in Table 2, implementation of emission controls has resulted in NO_x, SO₂ and PM reductions during the time period listed (2006 – 2018).

¹¹ Colorado Progress Report, p.16.

Table 2: Current Status of Colorado Sources Subject to BART and Reasonable Progress¹²

	Nitrous Oxides (NO _x)			Sulfur Dioxides (SO ₂)			Particulate Matter (PM)		
	2006-2008 Baseline Statewide NO _x Emissions (tons/year)	2015 Statewide NO _x Reductions (tons/year)	2018 Statewide NO _x Reductions (tons/year)	2006-2008 Baseline Statewide SO ₂ Emissions	2015 Statewide SO ₂ Reductions (tons/year)	2018 Statewide SO ₂ Reductions (tons/year)	2006-2008 Baseline Statewide PM Emissions (tons/year)	2015 Statewide PM Reductions (tons/year)	2018 Statewide PM Reductions (tons/year)
Clark Units 1 & 2	861	861	861	1,457	1,457	1,457	72	72	72
Cherokee Unit 1	1,556	1,556	1,556	2,221	2,221	2,221	37	37	37
Cherokee Unit 2	2,895	2,895	2,895	1,888	1,888	1,888	35	35	35
Cherokee Unit 3	1,866	0	1,866	743	0	743	65	65	65
Cherokee Unit 4	4,274	0	2,211	2,135	0	2,127	78	77	77
Arapahoe Unit 3	1,771	1,771	1,771	925	925	925	109	109	109
Arapahoe Unit 4	1,148	1,148	1,148	1,765	1,765	1,765	20	20	20
Valmont Unit 5	2,314	0	2,314	758	0	758	42	0	42
Pawnee Unit 1	4,538	3,135	3,135	13,472	11,066	11,066	108	0	0

Comanche Unit 1	1,506	0	0	1,539	0	0	84	0	0
Comanche Unit 2	2,349	0	0	1,244	0	0	63	0	0
Hayden Unit 1	3,750	3,120	3,120	1,172	61	61	96	0	0
Hayden Unit 2	3,473	0	3,032	1,469	39	39	119	0	0
Cameo Units 1 & 2	1,140	1,140	1,140	2,618	2,618	2,618	225	225	225
Craig Unit 1	5,190	0	0	970	0	0	100	0	0
Craig Unit 2	5,372	0	3,975	982	0	0	87	0	0
Craig Unit 3	5,693	0	854	1,792	0	0	70	0	0
Nucla Unit 4	1,675	0	0	1,335	0	0	55	0	0
Rawhide Unit 101	1,866	448	448	913	0	0	117	0	0
Drake Unit 5	768	0	215	1,269	0	762	27	0	0
Drake Unit 6	1,413	509	509	2,785	0	2,368	58	0	0
Drake Unit 7	2,081	749	749	4,429	0	3,764	55	0	0
Nixon Unit 1	2,357	0	707	4,121	0	3,215	87	0	0
Holcim Unit 1	3,186	0	1,099	287	0	0	58	0	0
Cemex Cement	1,747	0	846	95	0	0	10	0	0

CENC Boiler 3	180	-66	-66	257	0	0	2	0	0
CENC Boiler 4	599	214	214	780	0	0	11	0	0
CENC Boiler 5	691	354	354	1,406	0	0	18	0	0
Total Emissions Reductions (tons/year)	66,528	17,833	34,952	54,828	22,040	35,777	1,908	640	682

¹² Colorado Progress Report, p.16.

EPA also approved provisions in Colorado’s regional haze SIP covering certain existing internal combustion engines (RICE) reasonable progress sources. These provisions control ozone via ozone precursors (volatile organic compounds (VOCs) and NO_x) from certain existing RICE,¹³ and therefore, the State’s Report includes information about emission reductions from these types of sources.¹⁴

EPA proposes to find that Colorado has adequately addressed the applicable provisions under 40 CFR 51.308(g) regarding the implementation status of control measures because the

¹³ 77 FR 76871, 76883 (December 31, 2012).

¹⁴ Colorado Progress Report, p.19.

State's Progress Report provides documentation of the implementation of measures within Colorado, including the BART-eligible sources and RP sources in the State.

2. Summary of Emissions Reductions

In its Progress Report, Colorado presents information on emissions reductions achieved across the State from the pollution control strategies discussed above. The Progress Report includes statewide SO₂, NO_x, VOCs and PM (fine and coarse) emissions data from Western Regional Air Partnership (WRAP) emissions inventories.^{15, 16} The Progress Report includes emissions inventories the 2002 WRAP (Plan02d) and the 2008 WRAP (WestJump2008c) as baseline data and the 2011 WRAP (WAQDW 2011v1) as updated data from the baseline.¹⁷ The emissions data shows that there were decreases in emissions of SO₂ and NO_x over the time period (i.e., 2002 and 2011).

In its Progress Report, Colorado provides information that shows emissions from NO_x and SO₂ have decreased over the time period listed (2002 – 2011).¹⁸ The State cites regional haze and mobile source controls for being effective at reducing NO_x and SO₂.¹⁹ The State provides data that shows both coarse and fine particulate matter increasing over the time period listed (2002 – 2011).²⁰ In its Progress Report, Colorado explains that both 'coarse and fine particulate matter are dominated by fugitive and windblown dust' and presents data to show that fugitive

¹⁵ Colorado Progress Report, Tables 4a to 4h, pp. 22 to 29. Colorado, as other states, relies on the WRAP emissions inventories for examination of visibility changes. CO used WRAP regional summary reports for the period 2011 – 2013 to compare to baseline emissions data (2000 – 2004). The WRAP's inventories were developed using EPA's National Emissions Inventory (NEI) and other sources (<https://www.wrapair2.org/emissions.aspx>). The NEI is based primarily upon data provided by state, local, and tribal air agencies (including Colorado) for sources in their jurisdiction and supplemented by data developed by the EPA.

¹⁶ The State included emissions data on VOCs, Ammonia and Elemental Carbon.

¹⁷ Colorado Progress Report, pp. 22, 23, 26, 27.

¹⁸ Colorado Progress Report, pp. 22 & 23.

¹⁹ Ibid.

²⁰ Colorado Progress Report, pp. 26 & 27.

and wind-blown dust are source categories that most impact coarse and fine PM.²¹ The State explains the origins of the increase in fugitive road dust seen in Figures 5b and 5c are unclear.²² Additionally, the State presents data to show that VOC emissions decreased in the time period 2002 – 2008 and increased in the time period 2008 – 2011.²³

The EPA proposes to find that Colorado has adequately addressed the applicable provisions of 40 CFR 51.308(g) regarding emissions reductions achieved because the State identifies emissions reductions for SO₂ and NO_x. Additionally, Colorado presents sufficient emission inventory information and discussion regarding emissions trends for coarse and fine PM during the 2002 – 2011 time period.

3. Visibility Conditions and Changes

In its Progress Report, Colorado provides information on visibility conditions for the Class I areas within its borders. The Progress Report addressed current visibility conditions and the difference between current visibility conditions and baseline visibility conditions, expressed in terms of 5-year rolling averages of these annual values, with values for the most impaired (20% worst days), least impaired and/or clearest days (20% best days). The period for calculating current visibility conditions is the most recent 5-year period preceding the required date of the progress report for which data were available as of a date 6 months preceding the required date of the progress report.

Colorado's Progress Report provides figures with visibility monitoring data for the twelve Class I areas within the State. Colorado reported current visibility conditions for the 2009 – 2013 5-year time period and used the 2000-2004 baseline period for its examination of

²¹ Colorado Progress Report, p. 26.

²² Colorado Progress Report, pp. 26 & 31.

²³ Colorado Progress Report, p. 23.

visibility conditions and changes in the State.²⁴ In its Progress Report, Colorado presents visibility data, in deciviews, and representative IMPROVE monitors for Class I areas without an IMPROVE monitor, as there are not IMPROVE monitors in each of Colorado’s twelve Class I areas. Table 3: Colorado’s Class I areas and IMPROVE Sites, below, shows the IMPROVE monitors used for each Class I area.²⁵

Table 3: Colorado’s Class I Areas and IMPROVE Sites

Class I Area	IMPROVE Site
Great Sand Dunes National Park	GRSA1
Mesa Verde National Park	MEVE1
Mount Zirkle Wilderness Area	MOZI1
Rawah Wilderness Area	MOZI1
Rocky Mountain National Park	ROMO1
Weminuche Wilderness Area	WEMI1
Black Canyon of the Gunnison National Park	WEMI1
La Garita Wilderness Area	WEMI1
Eagle’s Nest Wilderness Area	WHRI1
Flat Tops Wilderness Area	WHRI1
Maroon Bells-Snowmass Wilderness Area	WHRI1
West Elk Wilderness Area	WHRI1

²⁴ For the first regional haze plans, “baseline” conditions were represented by the 2000-2004 time period. *See* 64 FR 35730 (July 1, 1999).

²⁵ Colorado Progress Report, p.6.

Table 4: Visibility Progress in Colorado’s Class I Areas, below, shows the difference between the current visibility conditions (represented by 2009 – 2013 data), baseline visibility conditions (represented by 2000 – 2004 data) and the 2018 RPGs.

Table 4: Visibility Progress in Colorado’s Class I Areas²⁶

Colorado’s Class I Area	IMPROVE Site	Current Period Deciviews 2009 - 2013 (dv)	Baseline Period Deciviews 2000 - 2004 (dv)	Difference in Deciviews (dv) Current - Baseline	CO 2018 RPG
20% Worst Days²⁷ [20% Most Anthropogenically Impaired Days]					
Great Sand Dunes National Park	GRSA1	11.56	12.80	-1.24	12.20
Mesa Verde National Park	MEVE1	11.24	13.00	-1.76	12.50
Mount Zirkle Wilderness Area	MOZI1	9.12	10.50	-1.38	9.91
Rawah Wilderness Area	MOZI1	9.12	10.50	-1.38	9.91
Rocky Mountain National Park	ROMO1	11.84	13.80	-1.96	12.83
Weminuche Wilderness Area	WEMI1	9.88	10.30	-0.42	9.83
Black Canyon of the Gunnison National Park	WEMI1	9.88	10.30	-0.42	9.83
La Garita Wilderness Area	WEMI1	9.88	10.30	-0.42	9.83
Eagle’s Nest Wilderness Area	WHRI1	8.48	9.60	-1.12	8.98
Flat Tops Wilderness Area	WHRI1	8.48	9.60	-1.12	8.98
Maroon Bells-Snowmass Wilderness Area	WHRI1	8.48	9.60	-1.12	8.98

West Elk Wilderness Area	WHRI1	8.48	9.60	-1.12	8.98
20% Best Days²⁸					
Great Sand Dunes National Park	GRSA1	3.80	4.50	-0.70	4.16
Mesa Verde National Park	MEVE1	3.00	4.32	-1.32	4.10
Mount Zirkle Wilderness Area	MOZI1	0.46	1.60	-1.55	1.29
Rawah Wilderness Area	MOZI1	0.46	1.60	-1.55	1.29
Rocky Mountain National Park	ROMO1	1.58	2.28	-0.70	2.06
Weminuche Wilderness Area	WEMI1	2.06	3.10	-1.04	2.93
Black Canyon of the Gunnison National Park	WEMI1	2.06	3.10	-1.04	2.93
La Garita Wilderness Area	WEMI1	2.06	3.10	-1.04	2.93
Eagle's Nest Wilderness Area	WHRI1	-0.10 ²⁹	0.73	-0.83	0.53
Flat Tops Wilderness Area	WHRI1	-0.10	0.73	-0.83	0.53
Maroon Bells-Snowmass Wilderness Area	WHRI1	-0.10	0.73	-0.83	0.53
West Elk Wilderness Area	WHRI1	-0.10	0.73	-0.83	0.53

²⁶ Colorado Progress Report, p. 8.

²⁷ Colorado Progress Report, p.6.

²⁸ Ibid.

As shown in Table 4, all IMPROVE monitoring sites within the State show improvement in visibility conditions on the 20% best days and are meeting the 2018 20% best days RPGs.³⁰

Additionally, five of the six IMPROVE monitors show visibility better than the 2018 20% worst days RPGs.³¹ The IMPROVE site that does not show visibility data meeting the 2018 20% worst

²⁹ While counterintuitive, deciview values are sometimes negative and represent pristine visibility conditions.

³⁰ Colorado Progress Report, p. 8.

³¹ Ibid.

days RPGs, Weminuche (WEMI1), that represents three class one areas in the state, shows progress from the baseline period provided (2002 – 2004), however, for the years 2009 through 2013, visibility falls short of the 2018 RPG by only 0.05 dv.³²

Additionally, in its Progress Report, Colorado describes visibility in the state being significantly impacted by anthropogenic emissions from within the state and regional ‘blowing dust, wildfires, and transport of pollutants into Colorado from international emissions and other western states, much of which is not controllable by state measures.’³³

The EPA proposes to find that Colorado has adequately addressed the applicable provisions under 40 CFR 51.308(g) regarding assessment of visibility conditions because the State provided baseline visibility conditions (2002 - 2004), more current conditions based on the most recently available visibility monitoring data available at the time of Progress Report development (2011 -2015), the difference between these current sets of visibility conditions and baseline visibility conditions, and the change in visibility impairment from 2000-2015 at the Class I areas.

4. Emissions Tracking

In its Progress Report, Colorado presents data from the statewide emissions inventory for 2008 (WestJump 2008c) and 2011 (WAQDW 2011v1) and compares this data to the baseline emissions inventory for 2002 (Plan02d). The pollutants inventoried include SO₂, NO_x, VOCs and PM (fine and coarse). The emissions inventories include the following type of source or activity classifications: point; area; on-road mobile; off-road mobile; point and WRAP area (including oil and gas); fugitive and road dust; anthropogenic fire; natural fire; biogenic and wind-blown dust from both anthropogenic and natural sources. Table 5 presents the 2002 baseline, and the 2008

³² Colorado Progress Report, p.10.

³³ Colorado Progress Report, p.10.

and 2011 more current data. As can be seen in Table 5, statewide emissions of both SO₂ and NO_x are lower than the projected 2018 emissions, while statewide emissions for both coarse and fine PM have increased in the time period shown. As is discussed above in section 2, Colorado explains that both coarse and fine PM are dominated by fugitive and windblown dust and presents data to show that fugitive and wind-blown dust are source categories that most impact coarse and fine PM and that the origins are unclear to the State.³⁴ VOCs decreased between the years 2002 and 2008 and increased between the years 2008 and 2011.

Table 5: Emissions Progress in Colorado³⁵

	SO2 (tons/year)	NOX (tons/year)	PM Coarse (tons/year)	PM Fine (tons/year)	VOCs (tons/year)
2002 Total Emissions (Plan02d)	114,636	404,465	222,546	34,681	1,181,756
2008 Total Emissions (WestJump 2008c)	68,118	329,727	258,365	43,613	612,318
2011 Total Emissions (WAQDW 2011v1)	54,021	273,905	354,084	57,571	735,121
Change 2002 – 2008 (%)	- 40%	- 18%	1%	25%	- 48%
Change 2008 – 2011 (%)	- 52%	- 32%	37%	32%	20%

The EPA is proposing to find that Colorado adequately addressed the applicable provisions of 40 CFR 51.308(g) regarding emissions tracking because the State compared the most recent updated emission inventory data available at the time of Progress Report development with the baseline emissions inventory used in the modeling for the regional haze plan.

³⁴ Colorado Progress Report, p. 26.

³⁵ Colorado Progress Report, Tables 4a, 4b, 4c, 4e & 4f, pp. 22 to 27.

5. Assessment of Changes Impeding Visibility Progress

In its Progress Report, Colorado provided an assessment of any significant changes in anthropogenic emissions within or outside the State that have occurred. The State cites wildfire as a major factor in visibility changes in the State.³⁶ In its Progress Report, Colorado explains that the state is downwind of wildfire prone areas and is also adjacent to states that have wildfire impacting visibility in Colorado.³⁷ Colorado has a prescribed fire burn program (Regulation 9) that tracks emissions from coarse and fine PM resulting from these burns.³⁸ In its Progress Report, the State provides discussion on data from the National Interagency Fire Center, which tracks wild land and prescribed burns. This data shows that while the acres burned for prescribed fires remain relatively constant, there is significant variability in wild land fire acres burned from year to year.³⁹ As the data show, natural variability in fires continues to pose challenges for the State in evaluating the impacts of anthropogenic emissions on Regional Haze.⁴⁰

The EPA proposes to find that Colorado has adequately addressed the applicable provisions of 40 CFR 51.308(g) regarding an assessment of significant changes in anthropogenic emissions. The EPA proposes to agree with Colorado's conclusion that wild fire (both inside and outside Colorado) and regional dust storms will likely impede future progress towards Regional Progress Goals.

6. Assessment of Current Implementation Plan Elements and Strategies

³⁶ Colorado Progress Report, p. 34.

³⁷ Ibid.

³⁸ Colorado's Progress Report indicates that it "maintains an EPA-approved prescribed burn program (Regulation 9)". Colorado Progress Report, p. 34. As this statement conflicts with other statements in the Report, EPA sought clarification from the State and learned that that statement was inadvertently included in the report. Email from Curtis Taipale, State Implementation Plan - Technical Development Unit Supervisor Planning and Policy Program, Colorado Department of Health & the Environment, to Kate Gregory, "Request for Regional Haze Contact." June 18, 2019.

³⁹ Ibid.

⁴⁰ Colorado Progress Report, p. 34, and Figure 9 (p. 35) and Tables 4a-4h (pp. 22-29).

In its Progress Report, Colorado acknowledges the requirements of 40 CFR 51.308(g) to assess whether the current implementation plan elements and strategies are sufficient to enable the State, or other states with Class I areas affected by emissions from the State, to meet all established reasonable progress goals. In its Progress Report, Colorado explains the State had previous emissions modeling that showed impacts to visibility in a Class I Area in New Mexico, (WPHE1 IMPROVE monitor).⁴¹ Colorado explains it exceeded the emission reduction goals in the 2011 RH SIP and that it can be reasonably expected that effects on the monitor where past modeling showed Colorado had this small impact are declining as a result of the RH controls in Colorado.^{42, 43}

As seen in Table 4, visibility conditions have improved in the State at all IMPROVE monitoring sites and the State is meeting its RPGs in all Class I areas on the 20% best days. Additionally, five of the six IMPROVE sites meet the 2018 RPGs established for the state.⁴⁴

The IMPROVE monitoring site with visibility not meeting the 2018 RPG, Weminuche (WEMI1), does show improvement despite significant wildfire events in the state during this planning period.⁴⁵ Looking in more detail at the data from this and other monitors, the State observed the following: clear reductions in organic, sulfate, and nitrate fractions; slight increases

⁴¹ Colorado Progress Report, p. 2.

⁴² Colorado Progress Report, p. 2. Additionally, in approving Colorado's RH SIP, EPA determined that Colorado satisfied the RHR's requirements for consultation and included controls in the SIP sufficient to address the relevant requirements of the RHR related to impacts on Class I areas in other states. 77 FR 18052, 18094 (March 26, 2012). 77 FR 76871 (December 31, 2012).

⁴³ We provide the following to clarify statements made on page 37 of the State's Report. The State references its March 2010 Interstate Transport SIP submittal, where the State elected to satisfy one of the Interstate Transport requirements by providing information to show that it does not interfere with other State's measures to protect visibility through their RH SIP. 76 FR 8326, 8328 (February 14, 2011) (EPA proposed approval of Interstate Transport of Pollution Revisions for the 1997 8-Hour Ozone and 1997 PM2.5 NAAQS); 76 FR 22036 (April 20, 2011) (EPA final action). In that action, EPA supplemented the State's Interstate Transport analysis and focused on the most impacted Class I area (Canyonlands) -- rather than the IMPROVE monitor for the Wheeler Peak and Pecos Wildernesses mentioned in Colorado's Progress Report -- and found that Colorado does not interfere with another States' measures to protect visibility in their RH SIP. 76 FR 8329.

⁴⁴ Colorado Progress Report, p. 36.

⁴⁵ Ibid.

in coarse mass and soil fractions; and the least amount of variability.⁴⁶ Colorado describes regional dust events, wildfire and interstate pollution as impacting this site, all of which are not reasonably controllable by statewide emission control measures.⁴⁷ Nevertheless, Colorado explains it will continue to monitor these concerns and evaluate possible additional controls on anthropogenic emissions impacting this site.⁴⁸ Therefore, Colorado believes that at this time this site is most impacted by natural variability in regional wind-blown dust and does not specifically recommend further analysis at this time.⁴⁹

The EPA proposes to find that Colorado has adequately addressed the applicable provisions of 40 CFR 51.308(g) and agrees with the State's determination that its regional haze plan is sufficient to meet the RPGs for its Class I areas.

7. Review of Current Monitoring Strategy

For progress reports for the first implementation period, the provisions under 40 CFR 51.308(g) require a review of the State's visibility monitoring strategy and any modifications to the strategy as necessary. In its Progress Report, Colorado summarizes the existing monitoring network in the State to monitor visibility at the twelve Class I areas within the State, which consists of Colorado relying on the national IMPROVE network to meet monitoring and data collection goals. There are currently six IMPROVE sites, which the State explains, continue to provide adequate and complete data records.⁵⁰ In the Progress Report, the State finds that the current monitoring network is sufficient at this time to monitor progress towards RPGs.⁵¹ The

⁴⁶ Colorado Progress Report, p. 36.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Colorado Progress Report, p. 36.

⁵⁰ Colorado Progress Report, p. 6.

⁵¹ Colorado Progress Report, p. 37.

IMPROVE monitoring network is the primary monitoring network for regional haze, both nationwide and in Colorado.

The EPA proposes to find that Colorado has adequately addressed the applicable provisions of 40 CFR 51.308(g) regarding a monitoring strategy because the State reviewed its visibility monitoring strategy and determined that no further modifications to the strategy are necessary.

B. Determination of Adequacy of the Existing Regional Haze Plan

The provisions under 40 CFR 51.308(h) require states to determine the adequacy of their existing implementation plan to meet existing goals. Colorado's Progress Report includes a negative declaration regarding the need for additional actions or emissions reductions in Colorado beyond those already in place and those to be implemented by 2018 according to Colorado's SIP.^{52, 53}

The EPA proposes to conclude that Colorado has adequately addressed 40 CFR 51.308(h) because the visibility trends in the majority of Class I areas in the State indicate that the relevant RPGs will be met via emission reductions already in place and therefore the SIP does not require substantive revisions at this time to meet those RPGs.

III. Proposed Action

The EPA is proposing to approve Colorado's May 2, 2016, Regional Haze Progress Report as meeting the applicable regional haze requirements set forth in 40 CFR 51.308(g) and 51.308(h).

IV. Statutory and Executive Order Reviews

⁵² Colorado Progress Report, p. 38.

⁵³ Additionally, Colorado's Report explains that the State "actively participates in maintenance of commitments associated with RH plan requirements" and continues "to work collaboratively with the scientific research community to refine our understanding of air quality issues in Colorado." Colorado Progress Report, p. 38.

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted 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 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);

- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

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 proposed 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, Intergovernmental relations, Greenhouse gases, 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 11, 2019.

Gregory Sopkin,
Regional Administrator,
EPA Region 8.