

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R01-OAR-2018-0791; FRL-9988-43-Region 1]

#### **Air Plan Approval; Massachusetts; Regional Haze Five-Year Progress Report State Implementation Plan**

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

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve the Massachusetts regional haze progress report submitted as a State Implementation Plan (SIP) revision on February 9, 2018. This revision addresses the requirements of the Clean Air Act and its implementing regulations that states submit periodic reports describing progress toward reasonable progress goals established for regional haze and a determination of adequacy of the state's existing regional haze SIP. Massachusetts' progress report notes that Massachusetts has implemented the measures in the regional haze SIP due to be in place by the date of the progress report and that visibility in the federal Class I areas affected by emissions from Massachusetts is improving and has already met the applicable reasonable progress goals for 2018. The EPA is proposing approval of Massachusetts' determination that the Commonwealth's regional haze SIP is adequate to meet these reasonable progress goals for the first implementation period, which extends 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-R01-OAR-2018-0791 at <https://www.regulations.gov>, or via email to [mcwilliams.anne@epa.gov](mailto:mcwilliams.anne@epa.gov). For comments submitted at [Regulations.gov](https://www.regulations.gov), follow the online instructions for submitting comments. Once

submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, 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, please contact the person identified in the “For Further Information Contact” section. For 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>. Publicly available docket materials are available at <https://www.regulations.gov> or at the U.S. Environmental Protection Agency, EPA Region 1 Regional Office, Office of Ecosystem Protection, Air Quality Planning Unit, 5 Post Office Square – Suite 100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office’s official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding legal holidays.

**FOR FURTHER INFORMATION CONTACT:** Anne K. McWilliams, Air Quality Unit, U.S. Environmental Protection Agency, EPA Region 1, 5 Post Office Square - Suite 100, (Mail code OEP05-2), Boston, MA 02109 - 3912, tel. (617) 918-1697, email [mcwilliams.anne@epa.gov](mailto:mcwilliams.anne@epa.gov).

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

## **Table of Contents**

## I. Background and Purpose

## II. EPA's Evaluation of Massachusetts' SIP Revision

### A. Regional Haze Progress Report

### B. Determination of Adequacy of Existing Regional Haze Plan

## III. Proposed Action

## IV. Statutory and Executive Order Reviews

### **I. Background and Purpose**

States are required to submit a progress report in the form of a SIP revision that evaluates progress towards the reasonable progress goals (RPGs) for each mandatory Class I federal area<sup>1</sup> (Class I area) within the state and in each Class I area outside the state which may be affected by emissions from within the state. *See* 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 adequacy of the state's existing regional haze SIP. The progress report SIP for the first planning period is due five years after submittal of the initial regional haze SIP. On December 30, 2011, the Massachusetts Department of Environmental Protection (MassDEP) submitted the Commonwealth's first regional haze SIP in accordance with 40 CFR 51.308.<sup>2</sup> On February 9, 2018, MassDEP submitted, as a revision to its SIP, its progress report which detailed the progress made in the first planning period toward the implementation of the Long Term Strategy (LTS) outlined in the 2011 regional haze submittal, the visibility improvement measured at Class I areas affected by emissions from Massachusetts, and a determination of the adequacy of the Commonwealth's existing regional haze SIP. The EPA is proposing to approve Massachusetts' February 9, 2018 SIP submittal.

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<sup>1</sup> Areas 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 (42 U.S.C. 7472(a)). Listed at 40 CFR part 81, subpart D.

<sup>2</sup> On September 19, 2013, EPA approved the Massachusetts regional haze SIP submittal. *See* 78 FR 57487.

## II. EPA's Evaluation of Massachusetts' SIP Revision

MassDEP's report on progress made in the first implementation period toward reasonable progress goals for all Class I areas affected by emission from sources in Massachusetts (also known as a regional haze five-year progress report) was submitted to the EPA as a SIP revision. This progress report SIP submittal also included a determination that the Commonwealth's existing regional haze SIP requires no substantive revision to achieve the established regional haze visibility improvement and emission reduction goals for 2018. Massachusetts is a member of the Mid-Atlantic/Northeast Visibility Union (MANE-VU).<sup>3</sup> The MANE-VU area contains seven Class I areas in four States: Moosehorn Wilderness Area, Acadia National Park, and Roosevelt Campobello International Park in Maine; Presidential Range/Dry River Wilderness Area and Great Gulf Wilderness Area in New Hampshire; Brigantine Wilderness Area in New Jersey; and Lye Brook Wilderness Area in Vermont. There are no Class I areas in Massachusetts. Through source apportionment modeling, MANE-VU assisted states in determining their contribution to the visibility impairment of each Class I area in the MANE-VU region and nearby Class I areas outside of MANE-VU. Massachusetts emissions were found to contribute to visibility impairment at each of the MANE-VU Class I areas, with the exception of Brigantine Wilderness Area in New Jersey. *See* 77 FR 30932 (May 24, 2012).

Through the consultation process, Massachusetts agreed to reduce emissions by at least the amount obtained by the measures in the coordinated course of action agreed to by MANE-VU to assure reasonable progress toward preventing any future, and remedying and existing, impairment of visibility in the mandatory Class I areas within the MANE-VU region. These

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<sup>3</sup> MANE-VU is a collaborative effort of State governments, 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 Northeastern United States. Member State and Tribal governments include: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Penobscot Indian Nation, Rhode Island, St. Regis Mohawk Tribe and Vermont.

strategies are commonly referred to as the MANE-VU “ask.” The MANE-VU “ask” includes: A timely implementation of best available retrofit technology (BART) requirements, 90 percent or more reduction in sulfur dioxide (SO<sub>2</sub>) at 167 electrical generating units (EGUs) “stacks” identified by MANE-VU (or comparable alternative measures), lower sulfur fuel oil (with limits specified for each state) and continued evaluation of other control measures.<sup>4</sup> In summary, Massachusetts is on track to fulfill the MANE-VU “ask” by adopting and implementing an alternative to the BART<sup>5</sup>, reducing SO<sub>2</sub> emissions at identified stacks, and implementing the low sulfur in fuel strategy.

#### *A. Regional Haze Progress Report*

This section includes the EPA’s analysis of MassDEP’s progress report SIP submittal and an explanation of the basis of our proposed approval.

The 2011 Massachusetts regional haze SIP included the following key measures: BART determinations for two municipal waste combustors, an EGU alternative to BART strategy, SO<sub>2</sub> emission reductions from ten targeted EGU stacks, and an adopted regulation which reduces the sulfur content of #2 distillate oil and #4/#6 residual oil. EPA’s analysis of the Massachusetts regional haze SIP for the first planning period can be found at 77 FR 30932 (May 24, 2012) and will not be restated here.

Table 3.1 of the Massachusetts progress report details the status of units subject to BART and the alternative to BART. All units have either been retired or have adopted permit revisions to implement BART or Alternative to BART. Table 3.2 of the Massachusetts progress report shows that the actual 2017 SO<sub>2</sub> and NO<sub>x</sub> reductions are 99% and 97%, respectively, of the 2018

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<sup>4</sup> The MANE-VU “ask” was structured around the finding that SO<sub>2</sub> emissions were the dominate visibility impairing pollutant at Northeastern Class I areas and electrical generating units comprised the largest SO<sub>2</sub> emission sector. *See* “Regional Haze and Visibility in the Northeast and Mid-Atlantic States,” January 31, 2001.

<sup>5</sup> The Massachusetts alternative to BART strategy is comprised of a combination of source retirements, emission limits for various EGUs, and sulfur in fuel requirements. For more details see 77 FR 30932 (May 24, 2012).

alternative to BART reduction target. Similarly, Table 3.3 shows a 99% reduction in SO<sub>2</sub> from the targeted EGUs, far surpassing the expected 90% reduction.

Massachusetts also adopted the MANE-VU low sulfur strategy. EPA approved the Massachusetts low sulfur in fuel regulation concurrent with EPA's approval of the Massachusetts regional haze SIP. *See* 78 FR 57487 (September 19, 2013).

EPA is proposing to find that MassDEP has adequately addressed the applicable provisions under 40 CFR 51.308(g) with the demonstrated implementation of measures within Massachusetts, including implementing the alternative to BART.

During the development of the regional haze SIP for the first planning period, MANE-VU and MassDEP determined that SO<sub>2</sub> was the greatest contributor to anthropogenic visibility impairment at nearby Class I areas. Therefore, the bulk of the visibility improvement achieved in the first planning period was expected to be from reductions in SO<sub>2</sub> emissions. Table 4.1 of the 2018 progress report presents data from statewide Massachusetts emission inventories developed for the years 2002, 2011, 2014, and projected inventories for 2018 for SO<sub>2</sub>, nitrogen oxides (NO<sub>x</sub>), and fine particulates with diameters that are generally less than 2.5 micrometers (PM<sub>2.5</sub>). From 2002 through 2014, the Commonwealth's overall SO<sub>2</sub> emissions were reduced from 134,824 tons to 19,882 tons of SO<sub>2</sub>, below the 2018 projection of 60,061 tons SO<sub>2</sub>. For NO<sub>x</sub>, from 2002 to 2014, the Commonwealth achieved an overall 54% reduction in NO<sub>x</sub> from 266,098 tons to 120,054 tons. The 2018 NO<sub>x</sub> projection for 2018 was 126,510 tons. Finally, from 2002 to 2014, PM<sub>2.5</sub> emissions were reduced from 53,000 tons to 39,000 tons, once again surpassing the 40,956 tons PM<sub>2.5</sub> projection for 2018.

EPA finds that Massachusetts has adequately addressed the applicable provisions under 40 CFR 51.308(g). MassDEP compared the most recently updated emissions inventory data available at the time of development of the progress report with the baseline emissions inventory

data from its regional haze SIP. The progress report appropriately details the 2014 SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>2.5</sub> reductions achieved, by sector, thus far in the regional haze planning period.

The provisions under 40 CFR 51.308(g) also require that states with Class I areas within their borders to provide information on current visibility conditions and the difference between current visibility conditions and baseline visibility conditions expressed in terms of five-year averages of these annual values. Massachusetts has no Class I areas, but the Class I areas affected by emissions from Massachusetts have visibility conditions better than baseline conditions and conditions predicted for 2018. The Interagency Visual Environmental monitoring program (IMPROVE) provides data on the air pollutants that constitute regional haze. The MassDEP progress report includes data from the IMPROVE sites at Class I areas affected by emissions from Massachusetts. Tables 1 and 2 below show the progress from the baseline 2000-2004 five-year average visibility through the most recent 2012-2016 five-year period for the 20% haziest days and 20% cleanest days.

**Table 1 - 20% Haziest Days Baseline, Reasonable Progress Goals, and Observed Visibility in deciviews (dv).**

<b>Class I Area IMPROVE* Site</b>	<b>Baseline (2000 – 2004)</b>	<b>Reasonable Progress Goal (2018)</b>	<b>5-Year Average Observed (2012 - 2016)</b>	<b>Met the 2018 progress goal?</b>
Acadia National Park (ME)	22.9	19.4	17.4	Yes
Great Gulf Wilderness (NH)	22.8	19.1	16.4	Yes
Presidential Range-Dry River Wilderness (NH)				
Lye Brook Wilderness (VT)	24.4	20.9	18.0	Yes
Moosehorn Wilderness (ME)	21.7	19.0	16.3	Yes
Roosevelt Campobello International Park (ME)				

**Table 2 - 20% Cleanest Days Baseline, Reasonable Progress Goals, and Observed Visibility in deciviews (dv).**

<b>Class I Area IMPROVE* Site</b>	<b>Baseline (2000 – 2004)</b>	<b>Reasonable Progress Goal (2018)</b>	<b>5-Year Average Observed (2012 - 2016)</b>	<b>Met the 2018 progress goal?</b>
Acadia National Park (ME)	8.78	8.3	6.6	Yes
Great Gulf Wilderness (NH)	7.7	7.2	6.7	Yes
Presidential Range-Dry River Wilderness (NH)				
Lye Brook Wilderness (VT)	6.4	5.5	5.1	Yes
Moosehorn Wilderness (ME)	9.2	8.6	6.7	Yes
Roosevelt Campobello International Park (ME)				

\*Data from *Tracking Visibility Progress 2004-2016*, as posted at [http://www.maine.gov/dep/ftp/MVTSC/RH\\_METRICS\\_TRENDS/](http://www.maine.gov/dep/ftp/MVTSC/RH_METRICS_TRENDS/) on January 30, 2018.

EPA notes the substantial improvement in visibility at Class I Areas impacted by Massachusetts emissions. These Class I areas have met the RPGs for the first regional haze planning period.

EPA proposes to find Massachusetts provided the required information regarding visibility conditions to meet the applicable requirements under 40 CFR 51.308(g), specifically providing baseline visibility conditions (2000- 2004) and current conditions based on IMPROVE monitoring data (2012-2016), and an assessment of the change in visibility impairment at nearby Class I areas.

In its progress report SIP, MassDEP presents data from statewide emissions inventories developed for the years 2002, 2011, and 2014 with projected inventories for 2018 for SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>2.5</sub>. Massachusetts' emission categories include the following source categories: EGU point, non-EGU point, point, area, on-road mobile, and non-road mobile. The 2014 emissions for all pollutants of concern and all source sectors were below the projections for 2018 contained



in the regional haze SIP. Reductions achieved by 2014 are 54% for NO<sub>x</sub>, 85% for SO<sub>2</sub>, and 25% for PM<sub>2.5</sub>.

EPA is proposing to find that MassDEP adequately addressed the provisions of 40 CFR 51.308(g). The progress report compared the most recent updated emission inventory data available at the time of the development of the progress report with baseline emissions used in the modeling for the regional haze SIP.

In its progress report SIP, Massachusetts did not find any significant changes in emissions of SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>2.5</sub> which might impede or limit progress during the first planning period. As noted earlier, haze at Class I areas affected by Massachusetts emissions has improved to levels to meet or exceed the RPG. EPA therefore proposes to approve MassDEP's 2018 SIP submission.

In its progress report SIP, Massachusetts concludes the elements and strategies relied on in its original regional haze SIP are sufficient to enable Massachusetts and neighboring states to meet all established RPGs. As shown in Table 1 above, visibility on the most impaired days from 2000 through 2016 has improved at all Class I areas affected by emissions from Massachusetts (and all RPGs have already been met.)

EPA proposes to agree with MassDEP's conclusion that Massachusetts has adequately addressed the provisions for the first planning period progress report. EPA views this requirement as an assessment that should evaluate emissions and visibility trends and other readily available information. In its progress report, MassDEP described the improving visibility trends using data from the IMPROVE network and the downward emission trends in key pollutants in the Commonwealth. MassDEP determined its regional haze SIP is sufficient to meet the RPGs for the Class I areas impacted by the Commonwealth's emissions.

Massachusetts does not have any Class I areas and is not required to monitor for visibility-impairing pollutants. The Massachusetts visibility monitoring strategy relies upon Class I area

participation in the IMPROVE network. EPA proposes to find that Massachusetts has adequately addressed the requirements for a monitoring strategy for regional haze and proposes to determine no further modifications to the monitoring program are necessary.

#### *B. Determination of Adequacy of Existing Regional Haze Plan*

In its progress report, MassDEP submitted a negative declaration to EPA regarding the need for additional actions or emission reductions in Massachusetts beyond those already in place and those to be implemented by 2018 according to the Massachusetts regional haze plan.

In the 2018 SIP submittal, MassDEP determined the existing regional haze SIP requires no further substantive revision at this time to achieve the RPGs for the Class I areas affected by the Commonwealth's sources. The basis for the Commonwealth's negative declaration is the finding that visibility has improved at all Class I areas in the MANE-VU region. In addition, SO<sub>2</sub> and PM<sub>2.5</sub> emissions for the latest emission inventory for Massachusetts have decreased to levels below projections for 2018.

EPA proposes to conclude that MassDEP has adequately addressed the provisions under 40 CFR 51.308(h) because visibility and emission trends indicate that Class I areas impacted by Massachusetts sources are meeting or exceeding the RPGs for 2018.

### **III. Proposed Action**

EPA is proposing to approve Massachusetts' regional haze progress report as meeting the requirements of 40 CFR 51.308(g) and (h). 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 rulemaking by following the instructions listed in the **ADDRESSES** section of this **Federal Register**.

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

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this 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) and 13563 (76 FR 3821, January 21, 2011);
- This action is not expected to be an Executive Order 13771 regulatory action because this action is not significant 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 Clean Air Act; 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 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, Lead, Nitrogen dioxide, Ozone, Particulate matter, Regional haze, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: December 21, 2018.

Alexandra Dunn,  
Regional Administrator,  
EPA Region 1.

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