ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R01-OAR-2019-0353; FRL- 9997-89-Region 1]

Air Plan Approval; Massachusetts; Transport Element for the 2010 Sulfur Dioxide National Ambient Air Quality Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the State Implementation Plan (SIP) submission from the Commonwealth of Massachusetts addressing the Clean Air Act (CAA or Act) interstate transport SIP requirements, referred to as the good neighbor provision, for the 2010 sulfur dioxide (SO_2) national ambient air quality standards (NAAQS). This submission addresses the interstate transport requirements of the CAA that the SIP contain adequate provisions prohibiting air emissions from Massachusetts from having certain adverse air quality effects in other states. In this action, the EPA is proposing to approve this portion of the infrastructure SIP submission that certifies that the Massachusetts SIP contain adequate provisions to ensure that air emissions in the Commonwealth will not significantly contribute to nonattainment or interfere with maintenance of the 2010 SO_2 NAAQS in any other state.

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-2019-0353 at https://www.regulations.gov, or via email to hubbard.elizabeth@epa.gov. For comments submitted at 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 http://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, Air and Radiation Division, 5 Post Office Square – Suite 100, Boston, MA. The 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: Elizabeth Hubbard, Air Quality Branch, U.S. Environmental Protection Agency, EPA Region 1, 5 Post Office Square – Suit 100, (Mail code 05-2), Boston, MA 02109 – 3912, tel. (617) 918-1614, email hubbard.elizabeth@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever "we," "us," or "our" is used, we mean the EPA.

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I. Background and Purpose

On June 2, 2010, the EPA established a new primary 1-hour SO_2 NAAQS of 75 parts per billion (ppb), based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations.[1] Whenever the EPA promulgates a new or revised NAAQS, CAA section 110(a)(1) requires states to make SIP submissions to provide for the implementation, maintenance, and enforcement of the NAAQS. This particular type of SIP submission is commonly referred to as an "infrastructure SIP." These submissions must meet the various requirements of CAA section 110(a)(2), as applicable. Due to ambiguity in some of the language of CAA section 110(a)(2), the EPA believes that it is appropriate to interpret these provisions in the specific context of acting on infrastructure SIP submissions. The EPA has previously provided comprehensive guidance on the application of these provisions through a guidance document for infrastructure SIP submissions and through regional actions on infrastructure submissions.[2] Unless otherwise noted below, we are following that existing approach in acting on this submission. In addition, in the context of acting on such infrastructure submissions, the EPA evaluates the submitting state's SIP for facial compliance with statutory

[1] 75 FR 35520 (June 22, 2010).

[2] The EPA explains and elaborates on these ambiguities and its approach to address them in its September 13, 2013 Infrastructure SIP Guidance (available at https://www3.epa.gov/airquality/urbanair/sipstatus/docs/Guidance_on_Infrastructure_SIP_Elements_Multipollutant_FINAL_Sept_2013.pdf), as well as in numerous agency actions, including the EPA's prior action on Massachusetts's infrastructure SIP to address the 1997 ozone, 2008 lead, 2008 ozone, 2010 NO_2, and 2010 SO_2 NAAQS (*see* 81 FR 93627, December 21, 2016).

and regulatory requirements, not for the state's implementation of its SIP.[3] The EPA has other authority to address any issues concerning a state's implementation of the rules, regulations, consent orders, etc. that comprise its SIP. One of these applicable infrastructure elements, CAA section 110(a)(2)(D)(i), requires SIPs to contain "good neighbor" provisions to prohibit certain adverse air quality effects on neighboring states due to interstate transport of pollution.

Section 110(a)(2)(D)(i) includes four distinct components, commonly referred to as "prongs," that must be addressed in infrastructure SIP submissions. The first two prongs, which are codified in section 110(a)(2)(D)(i)(I), require SIPs to contain adequate provisions that prohibit any source or other type of emissions activity in one state from contributing significantly to nonattainment of the NAAQS in another state (prong 1) and from interfering with maintenance of the NAAQS in another state (prong 2). The third and fourth prongs, which are codified in section 110(a)(2)(D)(i)(II), require SIPs to contain adequate provisions that prohibit emissions activity in one state from interfering with measures required to prevent significant deterioration of air quality in another state (prong 3) or from interfering with measures to protect visibility in another state (prong 4).

In this action, the EPA is proposing to approve the February 9, 2018 Massachusetts submission, which certifies that the Commonwealth's infrastructure SIP contains adequate provisions related to prong 1 and prong 2, i.e., to ensure that air emissions in the Commonwealth will not significantly contribute to nonattainment or interfere with maintenance of the 2010 SO_2 NAAQS in any other state. All other applicable infrastructure SIP requirements for the 2010 SO_2 NAAQS have been addressed in a separate rulemaking.[4]

II. Relevant Factors to Evaluate 2010 SO_2 Interstate Transport SIPs

[3] *See* U.S. Court of Appeals for the Ninth Circuit decision in *Montana Environmental Information Center v. EPA*, No. 16-71933 (Aug. 30, 2018).

[4] *See* the EPA's final action on other elements of Massachusetts's SIP for the 2010 SO_2 NAAQS at 81 FR 93627 (December 21, 2016).

Although SO_2 is emitted from a similar universe of point and nonpoint sources as is directly emitted $PM_{2.5}$ and the precursors to ozone and $PM_{2.5}$, interstate transport of SO_2 is unlike the transport of $PM_{2.5}$ or ozone because SO_2 emissions sources usually do not have long range SO_2 impacts. The transport of SO_2 relative to the 1-hour NAAQS is more analogous to the transport of Pb relative to the Pb NAAQS in that emissions of SO_2 typically result in 1-hour pollutant impacts of possible concern only near the emissions source. However, ambient 1-hour concentrations of SO_2 do not decrease as quickly with distance from the source as do 3-month average concentrations of Pb, because SO_2 gas is not removed by deposition as rapidly as are Pb particles and because SO_2 typically has a higher emissions release height than Pb. Emitted SO_2 has wider ranging impacts than emitted Pb, but it does not have such wide-ranging impacts that treatment in a manner similar to ozone or $PM_{2.5}$ would be appropriate. Accordingly, while the approaches that the EPA has adopted for ozone or $PM_{2.5}$ transport are too regionally focused, the approach for Pb transport is too tightly circumscribed to the source. SO_2 transport is therefore a unique case and requires a different approach.

In SO_2 transport analyses, we focus on a 50 km-wide zone because the physical properties of SO_2 result in relatively localized pollutant impacts near an emissions source that drop off with distance. Given the physical properties of SO_2, the EPA selected the "urban scale"—a spatial scale with dimensions from 4 to 50 kilometers (km) from point sources—given the usefulness of that range in assessing trends in both area-wide air quality and the effectiveness of large-scale pollution control strategies at such point sources.[5] Furthermore, the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) is the EPA's preferred modeling platform for regulatory purposes for near-field dispersion of emissions for distances up

[5] For the definition of spatial scales for SO_2, please see 40 CFR part 58, Appendix D, section 4.4 ("Sulfur Dioxide (SO_2) Design Criteria"). For further discussion on how the EPA is applying these definitions with respect to interstate transport of SO_2, see the EPA's proposal on Connecticut's SO_2 transport SIP. 82 FR 21351, 21352, and 21354 (May 8, 2017).

to 50 km (Appendix W to 40 CFR part 51). As such, the EPA utilized an assessment up to 50 km from point sources in order to assess trends in area-wide air quality that might impact downwind states.

As discussed in Section III of this proposed action, the EPA first reviewed Massachusetts's analysis to assess how the Commonwealth evaluated the transport of SO_2 to other states, the types of information the Commonwealth used in the analysis, and the conclusions drawn by the Commonwealth. The EPA then conducted a weight of evidence analysis, including review of the Massachusetts submission and other available information, including ambient air quality data, data from SO_2 emission sources, and emission trends within the Commonwealth and neighboring states to which it could potentially contribute or interfere.

III. Massachusetts's Submission and the EPA's Analysis

In this section, we provide an overview of Massachusetts's 2010 SO_2 transport analysis included in its February 9, 2018 submission that addresses the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I), as well as the EPA's evaluation of prongs 1 and 2.

A. Massachusetts's Analysis

Massachusetts conducted a weight of evidence analysis to examine whether SO_2 emissions from Massachusetts significantly contribute to nonattainment or interfere with maintenance of the 2010 SO_2 NAAQS in neighboring and downwind states. Massachusetts evaluated air monitoring data from ambient air monitoring stations in Massachusetts, as well in neighboring and downwind states. Massachusetts assessed whether SO_2 emissions from sources located within 50 km of Massachusetts's borders may have contributed significantly to nonattainment or interfered with maintenance in neighboring and downwind states. Massachusetts's analysis included source-specific SO_2 emissions data from Massachusetts sources located within 50 km of Massachusetts's border and having SO_2 emissions over 100 tons per year (tpy). Massachusetts

included the most recent stationary source SO_2 emissions data, which was from 2015. These sources included: Brayton Point Energy LLC (1446 tpy SO_2, located 2 km from the Rhode Island border), which shutdown in 2017; Mystic Station (729 tpy SO_2, located 39 km from the New Hampshire border); Solutia Inc (523 tpy SO_2, located 13 km from the Connecticut border), which permanently switched from coal to natural gas in 2016; NRG Canal LLC (492 tpy SO_2, located 53 km to Rhode Island border); Wheelabrator Millbury Inc (224 tpy SO_2, located 20 km from the Connecticut border); SEMASS Partnership (192 tpy SO_2, located 32 km to the Rhode Island border); and Veolia Energy Boston Inc (117 tpy SO_2, located 43 km from the New Hampshire border).

The largest SO_2 point source in Massachusetts, Brayton Point Energy LLC, permanently ceased operations in 2017. Massachusetts noted that SO_2 emissions have declined in the last 15 years, and that SO_2 levels at all monitors in the Commonwealth are below the 75 ppb SO_2 NAAQS. The Massachusetts Department of Environmental Protection (MassDEP) certifies that sources in Massachusetts do not contribute to nonattainment or interfere with maintenance of attainment of the 2010 SO_2 NAAQS in any neighboring state.

B. The EPA's Prong 1 Evaluation—Significant Contribution to Nonattainment

The EPA has analyzed the ambient air quality data, data from SO_2 emission sources, distance from neighboring states, and emissions trends in Massachusetts and neighboring and downwind states, i.e., Connecticut, Maine, New Hampshire, New York, Rhode Island, and Vermont.[6] Based on that analysis and discussed in greater detail below, the EPA proposes to find that Massachusetts's SIP meets the interstate transport requirements of CAA section

[6] For this analysis, though Maine does not share a border with Massachusetts, the EPA is analyzing SO_2 transport impacts of Massachusetts sources on ambient air in Maine, because Maine is located approximately 24 km from Massachusetts at its nearest point.

110(a)(2)(D)(i)(I), prong 1 for the 2010 NAAQS, and Massachusetts will not significantly contribute to nonattainment of the 2010 SO_2 NAAQS in any other state.

Table 1 includes the most recent air quality design value for each active SO_2 monitor in Massachusetts or in a neighboring or downwind state within 50 km of the Massachusetts border. These monitors were reviewed to see if there are any sites that show elevated SO_2 concentrations which may warrant further investigation with respect to interstate transport of SO_2 from Massachusetts emission sources near any given monitor.

Table 1: SO_2 Monitor Values in Massachusetts and Neighboring and Downwind States

State/City or Town	Site ID	Distance to Massachusetts border (km)*	2016-2018 Design Value (ppb)†
Connecticut/Cornwall	09-005-0005	25	2
Massachusetts/Fall River	25-005-1004	2	7
Massachusetts/Ware	25-015-4002	31	3
Massachusetts/Boston	25-025-0002	41	3
Massachusetts/Boston	25-025-0042	43	4
Massachusetts/Worcester	25-027-0023	26	4
New Hampshire/Peterborough	33-011-5001	18	2
New Hampshire/Suncook	33-013-1006	46	14
New Hampshire/Portsmouth	33-015-0014	24	13
New Hampshire/Londonderry	33-015-0018	17	3
New York/Loudonville	36-001-0012	41	3
New York/Millbrook	36-027-0007	36	2
Rhode Island/East Providence	44-007-1010	2	3

* All distances throughout this notice are approximations.
† Data retrieved from the EPA's https://www.epa.gov/air-trends/air-quality-design-values#report on July 24, 2019.

As seen in the Table 1, there are no violating monitored design values in Massachusetts or neighboring or downwind states. The data presented in Table 1 show that Massachusetts's network of SO_2 monitors with data sufficient to produce valid 1-hour SO_2 design values that monitored 1-hour SO_2 levels in Massachusetts range between 4% and 10% of the 75 ppb level of the NAAQS. As shown above, all five Massachusetts SO_2 monitors are located within 50 km of a neighboring state's border. Seven monitors with data sufficient to calculate a design value for

the 2016-2018 period in neighboring or downwind states are located within 50 km of the Massachusetts border, and these monitors recorded SO_2 design values ranging between 2% and 19% of the 2010 SO_2 NAAQS. Thus, these air quality data do not, by themselves, indicate any particular location that would warrant further investigation with respect to SO_2 emission sources that might significantly contribute to nonattainment in neighboring states. However, the monitoring network is not necessarily designed to find all locations of high SO_2 concentrations. Therefore, this observation indicates an absence of evidence of impact at monitored locations, but is not sufficient evidence by itself of an absence of impact at all locations in the neighboring and downwind states. Given this, the EPA has also conducted a source-oriented analysis.

As mentioned previously, the EPA finds that it is appropriate to examine the impacts of emissions from stationary sources in Massachusetts in distances ranging from 0 km to 50 km from the source. The EPA assessed point sources up to 50 km from state borders to evaluate trends and SO_2 concentrations in area-wide air quality. The list of sources with 2015 emissions equal to or greater than 100 tpy[7] SO_2 within 50 km from Massachusetts borders is shown in Table 2, based on Massachusetts's submission. The EPA has also included 2017 SO_2 emissions for those sources in the table, which were collected from MassDEP and transmitted to the EPA for incorporation into the National Emissions Inventory (NEI).

Table 2: Massachusetts SO_2 Sources Greater than 100 tpy Near Neighboring and Downwind States

Massachusetts source	**2015 SO_2 emissions (tons)**	**2017 SO_2 emissions (tons)**	**Distance to Massachusetts border (km)**	**Distance (km) to nearest neighboring**	**2017 emissions (tons) for the nearest**

[7] Massachusetts limited its analysis to Massachusetts sources of SO_2 emitting at least 100 tpy in 2015. We agree with Massachusetts's choice to limit its analysis in this way, because in the absence of special factors, for example the presence of a nearby larger source or unusual factors, Massachusetts sources emitting less than 100 tpy can appropriately be assumed to not be causing or contributing to SO_2 concentrations above the NAAQS. The EPA recognizes that in 2017 Ardagh Glass Inc. emitted 92 tpy SO_2, with the next highest source (Wheelabrator Saugus Inc) emitting 54 tpy SO_2. Ardagh Glass Inc. has permanently ceased operations as of September 26, 2018. Given these facts, the EPA finds MassDEP's analysis of SO_2 sources above 100 tpy adequate for analysis of SO_2 transport impacts to neighboring and downwind states.

				state SO_2 source emitting over 100 tons in 2017	**neighboring or downwind state source emitting over 100 tons***
Brayton Point Energy LLC *(shut down in May 2017)*	1,446	552	2	150 (Public Service of New Hampshire (PSNH) Schiller Station - Portsmouth, New Hampshire)	263
Mystic Station	729	354	39	82 (PSNH Schiller Station - Portsmouth, New Hampshire)	263
SEMASS Partnership	192	301	32	140 (PSNH Schiller Station - Portsmouth, New Hampshire)	263
Solutia Inc *(ceased burning coal as of December 2016)*	523	0	13	104 (Monadnock Paper Mills Inc - Bennington, New Hampshire)	101
Veolia Energy Boston Inc	117	0	43	85 (PSNH Schiller Station - Portsmouth, New Hampshire)	263
Wheelabrator Millbury Inc	224	187	20	88 (PSNH Schiller Station - Portsmouth, New Hampshire)	263

* Emissions data were obtained using the EPA's 2017 NEI Draft.

Table 2 shows the distance from each Massachusetts source emitting at least 100 tpy SO_2 in 2015 to the nearest out-of-state source emitting at least 100 tpy of SO_2 in 2017. As shown, six facilities in Massachusetts are within 50 km of the border with another state and are at a distance of 82 km or greater from the nearest out-of-state SO_2 source emitting over 100 tpy. The nearest SO_2 source emitting greater than 100 tpy in Massachusetts to a neighboring state, Brayton Point Energy LLC (2 km from Rhode Island), permanently ceased operations on May 31, 2017. Solutia Inc (13 km from Connecticut) converted its coal-fired unit to natural gas in 2016 and is no longer permitted to burn fuels that would result in emissions equal to or greater than 100 tpy. The EPA has reviewed the data Massachusetts submitted and agrees with the determination that the closure of Brayton Point Energy LLC and fuel switching at Solutia Inc have significantly lowered SO_2 emissions in Massachusetts and are not having downwind impacts in violation of prongs 1 and 2.

For the remaining active Massachusetts point sources emitting over 100 tpy of SO_2, i.e., Mystic Station, SEMASS Partnership, Veolia Energy Boston Inc, and Wheelabrator Millbury Inc, the nearest SO_2 source in a neighboring state is PSNH Schiller Station in Portsmouth, New Hampshire. The EPA has assessed potential SO_2 impacts from Massachusetts sources on the New Hampshire area with SO_2 sources near the Massachusetts border, specifically the Portsmouth, New Hampshire area and the Central New Hampshire nonattainment area, by examining monitoring and modeling information. These assessments are presented as follows for the Central New Hampshire nonattainment area and the Portsmouth, New Hampshire area.

First, the EPA assessed information presented by Massachusetts regarding the State's impacts in the Central New Hampshire nonattainment area. Massachusetts reviewed potential SO_2 impacts on the Central New Hampshire area, which includes parts of Hillsborough, Merrimack, and Rockingham counties, and was designated as a nonattainment area for the 2010

SO_2 NAAQS on August 5, 2013. The nonattainment designation was related to a monitored violation of the NAAQS at a monitoring station in Pembroke, New Hampshire and caused primarily by SO_2 emissions from nearby Merrimack Generating Station in Bow, New Hampshire.[8] The Merrimack Generating Station facility installed an emissions control system in response to a New Hampshire requirement, and the New Hampshire Department of Environmental Services (NH DES) established stringent emissions limits and other conditions for the facility on September 1, 2016. New Hampshire submitted an attainment plan for the Central New Hampshire area on January 31, 2017, which relied mainly on the emissions limits and other conditions established for the facility, and the EPA approved that plan on June 5, 2018.[9] New Hampshire's attainment plan and demonstration relies on air dispersion modeling of the 1-hour critical emission value shown to be equivalent to the federally-enforceable 7-boiler operating day allowable emissions limit for the Merrimack Generating Station, in addition to monitored background concentrations. These measured background concentrations account for contributions from Massachusetts. The New Hampshire modeling analysis demonstrated that allowable emissions from Merrimack Generating Station, in addition to the background levels, will not cause a violation of the 1-hour SO_2 NAAQS. The attainment plan did not require any reductions from Massachusetts sources, and relied solely on controls and limits at Merrimack Generating Station to address the nonattainment. Therefore, the EPA concludes that sources in Massachusetts do not contribute significantly to SO_2 nonattainment in the Central New Hampshire area.[10]

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[8] 40 CFR Part 81 Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard (78 FR 47191, August 5, 2013).

[9] *See* the EPA's final action on the Central New Hampshire Nonattainment Area Plan for the 2010 SO_2 NAAQS at 83 FR 25922 (June 5, 2018).

[10] On July 31, 2019, the EPA published a proposal to formally redesignate the Central New Hampshire SO_2 Nonattainment Area to attainment for the 2010 SO_2 NAAQS (84 FR 37187).

Second, the EPA has assessed information, including both monitoring and modeling information, for the area around Portsmouth, New Hampshire during the third round of SO_2 designations.[11] For monitoring information, the EPA reviewed available monitoring data in the Portsmouth, New Hampshire area. There is one SO_2 monitor (Site ID 33-015-0014 — See Table 1) in the area, located 4 km southeast of PSNH Schiller Station. As shown, this monitor recorded a design value of 13 ppb from 2016-2018. This design value indicates that SO_2 levels are low (17% of the NAAQS) in areas of Portsmouth. An additional monitor sited at Sawgrass Lane in Eliot, Maine (Site ID 23-031-0009), was located 1.1 miles to the northeast of PSNH Schiller Station and collected ambient SO_2 data from October 24, 2014 to April 1, 2016. The maximum 1-hour SO_2 concentration observed from this monitor was 37.7 ppb on January 8, 2015, when winds came from the direction of PSNH Schiller Station and the power plant was operating at near-maximum capacity.[12] While the Portsmouth SO_2 monitor is not sited to determine maximum impacts from PSNH Schiller Station, the Sawgrass Lane monitor measured combined impacts from PSNH Schiller Station and background concentrations for the area that generally include contributions from sources emitting upwind in Massachusetts. Additionally, Massachusetts noted air quality modeling by the State of New Hampshire. New Hampshire's air quality modeling indicates that allowable emissions from PSNH Schiller Station combined with background levels that include contributions from sources emitting SO_2 in Massachusetts will not cause a violation of the 2010 SO_2 NAAQS.[13] The EPA has previously evaluated that modeling and agrees that the modeling supports Massachusetts's conclusion. Therefore, the

[11] A full assessment of New Hampshire's modeling for the Portsmouth, New Hampshire area is provided in the technical support document for the EPA's intended Round 3 air quality designations for the 2010 SO_2 NAAQS (82 FR 41903, September 5, 2017).

[12] The Sawgrass Lane monitor was sited in an area expected to experience peak SO_2 impacts from PSNH Schiller Station based on modeling information submitted by the Town of Eliot. Additional background and results of the Sawgrass Lane monitoring study are described in the report, "Review of 2014-2016 Eliot, Maine Air Quality Monitoring Study," EPA, the Maine Department of Environmental Protection, and NH DES (September 2016).

[13] *See* EPA's final action of New Hampshire's SIP revision at 83 FR 64470 (December 17, 2018).

EPA concludes that sources in Massachusetts would not contribute significantly to SO_2 nonattainment in the Portsmouth, New Hampshire area.

The EPA also reviewed sources in neighboring and downwind states emitting more than 100 tpy of SO_2 and located within 50 km of the Massachusetts border (see Table 3). This is because elevated SO_2 levels, to which an SO_2 source in Massachusetts may contribute, are most likely to be found near such sources. Massachusetts based its analysis on 2015 SO_2 emissions, and the EPA has included updated 2017 emissions as part of the weight of evidence analysis. As shown in Table 3, the shortest distance between a source emitting at least 100 tpy SO_2 in Massachusetts and one in another state is 82 km. Given the localized range of potential 1-hour SO_2 impacts, this indicates that there are no additional locations in neighboring and downwind states that would warrant further investigation with respect to Massachusetts SO_2 emission sources that might contribute to problems with attainment of the 2010 SO_2 NAAQS.

Table 3: Neighboring and Downwind State SO_2 Sources Greater than 100 tpy and within 50 km of Massachusetts

Source	**2015 SO_2 emissions (tons)***	**2017 SO_2 emissions (tons)**	**Distance to Massachusetts border (km)**	**Distance to nearest Massachusetts SO_2 source greater than 100 tpy (km)**	**Massachusetts source 2015 emissions (tons)**
Lafarge North America - Ravena (Ravena, New York)	4,806	63	36	107 (Solutia Inc - Springfield)	523
Monadnock Paper Mills Inc (Bennington, New Hampshire)	80†	101	36	88 (Wheelabrator Millbury Inc - Millbury)	224
Norlite Corp (Cohoes, New York)	117††	60	34	117 (Solutia Inc – Springfield)	523

Northeast Solite Corporation (Glasco, New York)	222[††]	303	39	121 (Solutia Inc - Springfield)	523
PSNH – Merrimack Station (Bow, New Hampshire)	636	144	49	90 (Mystic Station – Everett)	729
PSNH – Newington Station (Newington, New Hampshire)	294	41	25	82 (Mystic Station – Everett)	729
PSNH – Schiller Station (Portsmouth, New Hampshire)	858	263	26	82 (Mystic Station – Everett)	729

* Data retrieved, unless otherwise noted, by the EPA from its Emissions Inventory System gateway, available at https://www.epa.gov/air-emissions-inventories/emissions-inventory-system-eis-gateway, on July 22, 2019 for 2015 emissions as submitted by MassDEP, New York Department of Environmental Conservation (NYDEC), New Hampshire Department of Environmental Services (NHDES), and Connecticut Department of Energy and Environmental Protection.

[†] Emissions data reported by NHDES.

[††] Emissions data reported by NYDEC.

The EPA also assessed previous modeling information available for the Lafarge North America – Ravena facility in Ravena, New York. This modeling information was available based on the technical support document for the EPA's intended Round 3 air quality designations for the 2010 SO_2 NAAQS (82 FR 41903, September 5, 2017). The Lafarge North America – Ravena facility had its kiln replaced in 2016, resulting in considerably lower emissions than those emitted prior to the kiln replacement. The Lafarge North America – Ravena facility was modeled using new allowable emissions rather than previous actual emissions and the modeling indicated the area around the facility would not violate the NAAQS. New York's modeling, which the EPA found accurately characterized air quality in the area of analysis, included

monitored background concentrations for the area. Based on this information, the EPA concludes that combined impacts from Lafarge North America – Ravena and background levels will not cause a violation of the NAAQS.

Massachusetts asserted that because there are no large sources of SO_2 emissions that significantly affect any neighboring state, and because monitored SO_2 levels in Massachusetts and adjacent states are substantially below the 2010 SO_2 NAAQS, sources in Massachusetts do not significantly contribute to nonattainment areas in any neighboring states. The EPA agrees with this conclusion.

In conclusion, for interstate transport prong 1, the EPA reviewed ambient SO_2 monitoring data and SO_2 emission sources both within Massachusetts and in neighboring and downwind states. Based on this analysis, the EPA proposes to determine that Massachusetts will not significantly contribute to nonattainment of the 2010 SO_2 NAAQS in any other state, per the requirements of CAA section 110(a)(2)(D)(i)(I).

C. The EPA's Prong 2 Evaluation—Interference with Maintenance of the NAAQS

The EPA has reviewed available information on SO_2 air quality and emission trends to evaluate the Commonwealth's conclusion that Massachusetts will not interfere with maintenance of the 2010 SO_2 NAAQS in downwind states.

The EPA interprets CAA section 110(a)(2)(D)(i)(I) prong 2 to require an evaluation of the potential impact of a state's emissions on areas that are currently measuring clean data, but that may have issues maintaining that air quality, rather than only former nonattainment areas (and thus current maintenance areas). Therefore, in addition to the analysis presented by Massachusetts, the EPA has also reviewed additional information on SO_2 air quality and emission trends to evaluate the Commonwealth's conclusion that Massachusetts will not interfere with maintenance of the 2010 SO_2 NAAQS in downwind states. This evaluation builds

on the analysis regarding significant contribution to nonattainment (prong 1). Specifically, because of the low monitored ambient concentrations of SO_2 in Massachusetts and neighboring and downwind states, the EPA is proposing to find that SO_2 levels in neighboring states near the Massachusetts border do not indicate any inability to maintain the SO_2 NAAQS that could be attributed in part to sources in Massachusetts.

As shown in Table 1 in section III.B. of this notice, the EPA reviewed 2016-2018 SO_2 design value concentrations at monitors with data sufficient to produce valid 1-hour SO_2 design values in Massachusetts and neighboring states. There are no violating monitored design values in Massachusetts or neighboring or downwind states.

Table 4 shows emission trends for Massachusetts along with neighboring and downwind states (Connecticut, Maine, New Hampshire, New York, Rhode Island, and Vermont).

Table 4: Statewide SO_2 Data (tpy) for Massachusetts and Neighboring and Downwind States

State	2000	2005	2010	2017	SO_2 reduction, 2000–2017 (%)
Massachusetts	208,146	139,937	57,892	15,100	93
Connecticut	60,309	34,638	16,319	11,379	81
Maine	57,906	32,397	17,020	10,447	82
New Hampshire	68,768	63,634	35,716	6,401	91
New York	543,868	386,568	170,247	38,641	93
Rhode Island	8,976	7,356	4,416	3,399	62
Vermont	9,438	7,038	3,659	1,512	84

As shown in Table 4, the statewide SO_2 emissions from Massachusetts and neighboring and downwind states have decreased substantially over time, per the EPA's review of emissions trends data for these states.[14] From 2000 to 2017, total statewide SO_2 emissions decreased by the following proportions: Massachusetts (93% decrease), Connecticut (81% decrease), Maine (82% decrease), New Hampshire (91% decrease), New York (93% decrease), Rhode Island (62%

[14] Additional emissions trends data are available at: https://www.epa.gov/air-emissions-inventories/airpollutant-emissions-trends-data.

decrease), and Vermont (84%). This trend of decreasing SO_2 emissions does not by itself demonstrate that areas in Massachusetts and neighboring states will not have issues maintaining the 2010 SO_2 NAAQS. However, as a piece of this weight of evidence analysis for prong 2, it provides further indication (when considered alongside low monitor values in neighboring states) that such maintenance issues are unlikely. This is because the geographic scope of these reductions and their large sizes strongly suggest that they are not transient effects from reversible causes, and thus these reductions suggest there is very low likelihood that a strong upward trend in emissions will occur that might cause areas presently in attainment to violate the NAAQS.

As noted in Massachusetts's submission, sources of SO_2 emissions will be addressed by Massachusetts's SIP-approved SO_2 control programs. These programs include the low sulfur fuel rule, emissions standards for power plants, SO_2 limits on municipal waste combustors, and a statewide permitting program. The low sulfur fuel rule reduces the sulfur content of oil combusted in stationary sources and requires the use of low sulfur fuel for large stationary engines and turbines based on EPA requirements for diesel fuel.[15] Massachusetts notes in the submission that sulfur emissions from stationary sources will continue to decrease over time due to MassDEP's fuel rule. The State's Emissions Standards for Power Plants regulation establishes a facility-wide rolling 12-month SO_2 emissions rate of 3.0 pounds per megawatt-hour and a monthly average emissions rate of 6.0 pounds per megawatt-hour.[16] The State's 310 CMR 7.08 regulations establish limits on municipal waste combustors and requires such facilities to establish emission control plans and places limits on SO_2.[17] MassDEP's statewide permitting program establishes a pre-construction Plan Approval for sources that require Best Available

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[15] *See* the EPA's final action of the regional haze portions in Massachusetts's SIP, at 78 FR 57487 (September 21, 2013).
[16] Id.
[17] *See* the EPA's final action of the reasonably available control technology (RACT) of nitrous oxides in Massachusetts's SIP, at 64 FR 48095, September 13, 1999.

Control Technology for pollutants will be emitted, including SO_2, and ensures that projects requiring Plan Approvals will limit SO_2 emissions.[18] These regulations will help ensure that sulfur emissions from stationary sources will continue to decrease over time, and that new or modified stationary sources in Massachusetts will not cause exceedances of the SO_2 NAAQS in neighboring states.

In conclusion, for interstate transport prong 2, the EPA reviewed additional information about emissions trends, Massachusetts regulations that limit SO_2 sources, and the technical information considered for interstate transport prong 1. The EPA finds that the combination of low ambient concentrations of SO_2 in Massachusetts and neighboring and downwind states, the distances between cross-state SO_2 sources, the downward trend in SO_2 emissions from Massachusetts and neighboring and downwind states, and Massachusetts regulations that limit SO_2 sources indicate no interference with maintenance of the 2010 SO_2 NAAQS from Massachusetts. Accordingly, the EPA proposes to determine that Massachusetts SO_2 emissions sources will not interfere with maintenance of the 2010 SO_2 NAAQS in any other state, per the requirements of CAA section 110(a)(2)(D)(i)(I).

IV. Proposed Action

The EPA is proposing to approve Massachusetts's February 9, 2018 submission of the 2010 SO_2 NAAQS as meeting the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I). 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**.

[18] *See* the EPA's final action of the Massachusetts "U Restricted Emission Status" regulation into the SIP, at 60 FR 17226, April 5, 1995. Massachusetts has delegation of the Federal Prevention of Significant Deterioration program (*See* CFR 40 52.1165).

V. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the 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);
- 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 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 specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: August 5, 2019.

Deborah Szaro,
Acting Regional Administrator,
EPA Region 1.

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