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, this proposed CDD and accompanying approval of selected elements of Maryland's January 30, 2020 SO_2 attainment plan do not have tribal implications, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

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

Adam Ortiz,

Regional Administrator, Region III.

[FR Doc. 2022–17341 Filed 8–18–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R02–OAR–2020–0432; FRL–10121–01–R2]

Approval and Promulgation of Air Quality Implementation Plans; New Jersey; Regional Haze State Implementation Plan for the Second Implementation Period

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the regional haze state implementation plan (SIP) revision submitted by New Jersey on March 26, 2020, as satisfying applicable requirements under the Clean Air Act (CAA) and EPA's Regional Haze Rule for the program's second implementation period. New Jersey's SIP submission addresses the requirement that states must periodically revise their long-term strategies for making reasonable progress towards the national goal of preventing any future, and remedying any existing, anthropogenic impairment of visibility, including regional haze, in mandatory Class I Federal areas. The SIP submission also addresses other applicable requirements for the second implementation period of the regional haze program. The EPA is taking this action pursuant to sections 110 and 169A of the Clean Air Act.

DATES: Written comments must be received on or before September 19, 2022.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R02–OAR–2020–0432 at *https://www.regulations.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 *https://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Omar Hammad, U.S. Environmental Protection Agency, Region 2, 290 Broadway, New York, New York 10007–1866, at (212) 637–3347, or by email at *Hammad.Omar@epa.gov.*

Table of Contents

I. What action is the EPA proposing?

On March 26, 2020, supplemented on September 8, 2020, and April 1, 2021, the New Jersey Department of Environmental Protection (NJDEP) submitted a revision to its SIP to address regional haze for the second implementation period. NJDEP made this SIP submission to satisfy the requirements of the CAA's regional haze program pursuant to CAA sections 169A and 169B and 40 CFR 51.308. The EPA is proposing to find that the New Jersey regional haze SIP submission for the second implementation period meets the applicable statutory and regulatory requirements and thus proposes to approve New Jersey's submission into its SIP.

II. Background and Requirements for Regional Haze Plans

A. Regional Haze Background

In the 1977 CAA Amendments, Congress created a program for protecting visibility in the nation's mandatory Class I Federal areas, which include certain national parks and wilderness areas.[1] CAA 169A. The CAA establishes as a national goal the

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

''prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.'' CAA 169A(a)(1). The CAA further directs the EPA to promulgate regulations to assure reasonable progress toward meeting this national goal. CAA 169A(a)(4). On December 2, 1980, the EPA promulgated regulations to address visibility impairment in mandatory Class I Federal areas (hereinafter referred to as ''Class I areas'') that is ''reasonably attributable'' to a single source or small group of sources. (45 FR 80084, December 2, 1980). These regulations, codified at 40 CFR 51.300 through 51.307, represented the first phase of the EPA's efforts to address visibility impairment. In 1990, Congress added section 169B to the CAA to further address visibility impairment, specifically, impairment from regional haze. CAA 169B. The EPA promulgated the Regional Haze Rule (RHR), codified at 40 CFR 51.308,[2] on July 1, 1999. (64 FR 35714, July 1, 1999). These regional haze regulations are a central component of the EPA's comprehensive visibility protection program for Class I areas.

Regional haze is visibility impairment that is produced by a multitude of anthropogenic sources and activities which are located across a broad geographic area and that emit pollutants that impair visibility. Visibility impairing pollutants include fine and coarse particulate matter (PM) (*e.g.,* sulfates, nitrates, organic carbon, elemental carbon, and soil dust) and their precursors (*e.g.,* sulfur dioxide (SO_2), nitrogen oxides (NO_X), and, in some cases, volatile organic compounds (VOC) and ammonia (NH_3)). Fine particle precursors react in the atmosphere to form fine particulate matter ($PM_{2.5}$), which impairs visibility by scattering and absorbing light. Visibility impairment reduces the perception of clarity and color, as well as visible distance.[3]

To address regional haze visibility impairment, the 1999 RHR established an iterative planning process that requires both states in which Class I areas are located and states ''the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility'' in a Class I area to periodically submit SIP revisions to address such impairment. CAA 169A(b)(2);[4] see also 40 CFR 51.308(b), (f) (establishing submission dates for iterative regional haze SIP revisions); (64 FR at 35768, July 1, 1999). Under the CAA, each SIP submission must contain ''a long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal,'' CAA 169A(b)(2)(B); the initial round of SIP submissions also had to address the statutory requirement that certain older, larger sources of visibility impairing pollutants install and operate the best available retrofit technology (BART). CAA 169A(b)(2)(A); 40 CFR 51.308(d), (e). States' first regional haze SIPs were due by December 17, 2007, 40 CFR 51.308(b), with subsequent SIP submissions containing updated long-term strategies originally due July 31, 2018, and every ten years thereafter. (64 FR at 35768, July 1, 1999). The EPA established in the 1999 RHR that all states either have Class I areas within their borders or ''contain sources whose emissions are reasonably anticipated to contribute to regional haze in a Class I area''; therefore, all states must submit regional haze SIPs.[5] Id. at 35721.

Much of the focus in the first implementation period of the regional haze program, which ran from 2007 through 2018, was on satisfying states' BART obligations. First implementation period SIPs were additionally required to contain long-term strategies for making reasonable progress toward the national visibility goal, of which BART is one component. The core required elements for the first implementation period SIPs (other than BART) are laid out in 40 CFR 51.308(d). Those provisions required that states containing Class I areas establish reasonable progress goals (RPGs) that are measured in deciviews and reflect the anticipated visibility conditions at the end of the implementation period including from implementation of states' long-term strategies. The first planning period RPGs were required to provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period. In establishing the RPGs for any Class I area in a state, the state was required to consider four statutory factors: the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected sources. CAA 169A(g)(1); 40 CFR 51.308(d)(1).

States were also required to calculate baseline (using the five year period of 2000–2004) and natural visibility conditions (*i.e.,* visibility conditions without anthropogenic visibility impairment) for each Class I area, and to calculate the linear rate of progress needed to attain natural visibility conditions, assuming a starting point of baseline visibility conditions in 2004 and ending with natural conditions in 2064. This linear interpolation is known as the uniform rate of progress (URP) and is used as a tracking metric to help states assess the amount of progress they are making towards the national visibility goal over time in each Class I area.[6] 40 CFR 51.308(d)(1)(i)(B), (d)(2).

[2] In addition to the generally applicable regional haze provisions at 40 CFR 51.308, the EPA also promulgated regulations specific to addressing regional haze visibility impairment in Class I areas on the Colorado Plateau at 40 CFR 51.309. The latter regulations are applicable only for specific jurisdictions' regional haze plans submitted no later than December 17, 2007, and thus are not relevant here.

[3] There are several ways to measure the amount of visibility impairment, *i.e.,* haze. One such measurement is the deciview, which is the principal metric used by the RHR. Under many circumstances, a change in one deciview will be perceived by the human eye to be the same on both clear and hazy days. The deciview is unitless. It is proportional to the logarithm of the atmospheric extinction of light, which is the perceived dimming of light due to its being scattered and absorbed as it passes through the atmosphere. Atmospheric light extinction (b^{ext}) is a metric used to for expressing visibility and is measured in inverse megameters (Mm-1). The EPA's Guidance on Regional Haze State Implementation Plans for the Second Implementation Period (''2019 Guidance'') offers the flexibility for the use of light extinction in certain cases. Light extinction can be simpler to use in calculations than deciviews, since it is not a logarithmic function. See, *e.g.,* 2019 Guidance at 16, 19, *https://www.epa.gov/visibility/guidance-regional-haze-state-implementation-plans-second-implementation-period,* The EPA Office of Air Quality Planning and Standards, Research Triangle Park (August 20, 2019). The formula for the deciview is $10 \ln (b^{ext})/10 \text{ Mm} - 1$). 40 CFR 51.301.

[4] The RHR expresses the statutory requirement for states to submit plans addressing out-of-state class I areas by providing that states must address visibility impairment ''in each mandatory Class I Federal area located outside the State that may be affected by emissions from within the State.'' 40 CFR 51.308(d), (f).

[5] In addition to each of the fifty states, the EPA also concluded that the Virgin Islands and District of Columbia must also submit regional haze SIPs because they either contain a Class I area or contain sources whose emissions are reasonably anticipated to contribute regional haze in a Class I area. *See* 40 CFR 51.300(b), (d)(3).

[6] EPA established the URP framework in the 1999 RHR to provide ''an equitable analytical approach'' to assessing the rate of visibility improvement at Class I areas across the country. The start point for the URP analysis is 2004 and the endpoint was calculated based on the amount of visibility improvement that was anticipated to result from implementation of existing CAA programs over the period from the mid-1990s to approximately 2005. Assuming this rate of progress would continue into the future, EPA determined that natural visibility conditions would be reached in 60 years, or 2064 (60 years from the baseline starting point of 2004). However, EPA did not establish 2064 as the year by which the national goal *must* be reached. 64 FR at 35731–32. That is, the URP and the 2064 date are not enforceable targets, but are rather tools that ''allow for analytical comparisons between the rate

Continued

The 1999 RHR also provided that States' long-term strategies must include the ''enforceable emissions limitations, compliance, schedules, and other measures as necessary to achieve the reasonable progress goals.'' 40 CFR 51.308(d)(3). In establishing their long-term strategies, states are required to consult with other states that also contribute to visibility impairment in a given Class I area and include all measures necessary to obtain their shares of the emission reductions needed to meet the RPGs. 40 CFR 51.308(d)(3)(i), (ii). Section 51.308(d) also contains seven additional factors states must consider in formulating their long-term strategies, 40 CFR 51.308(d)(3)(v), as well as provisions governing monitoring and other implementation plan requirements. 40 CFR 51.308(d)(4). Finally, the 1999 RHR required states to submit periodic progress reports—SIP revisions due every five years that contain information on states' implementation of their regional haze plans and an assessment of whether anything additional is needed to make reasonable progress, see 40 CFR 51.308(g), (h)—and to consult with the Federal Land Manager(s)[7] (FLMs) responsible for each Class I area according to the requirements in CAA 169A(d) and 40 CFR 51.308(i).

On January 10, 2017, the EPA promulgated revisions to the RHR, (82 FR 3078, January 10, 2017), that apply for the second and subsequent implementation periods. The 2017 rulemaking made several changes to the requirements for regional haze SIPs to clarify States' obligations and streamline certain regional haze requirements. The revisions to the regional haze program for the second and subsequent implementation periods focused on the requirement that States' SIPs contain long-term strategies for making reasonable progress towards the national visibility goal. The reasonable progress requirements as revised in the 2017 rulemaking (referred to here as the 2017 RHR Revisions) are codified at 40 CFR 51.308(f). Among other changes, the 2017 RHR Revisions adjusted the deadline for States to submit their second implementation period SIPs from July 31, 2018, to July 31, 2021, clarified the order of analysis and the relationship between RPGs and the long-term strategy, and focused on making visibility improvements on the days with the most *anthropogenic* visibility impairment, as opposed to the days with the most visibility impairment overall. The EPA also revised requirements of the visibility protection program related to periodic progress reports and FLM consultation. The specific requirements applicable to second implementation period regional haze SIP submissions are addressed in detail below.

The EPA provided guidance to the states for their second implementation period SIP submissions in the preamble to the 2017 RHR Revisions as well as in subsequent, stand-alone guidance documents. In August 2019, the EPA issued ''Guidance on Regional Haze State Implementation Plans for the Second Implementation Period'' (''2019 Guidance'').[8] On July 8, 2021, the EPA issued a memorandum containing ''Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period'' (''2021 Clarifications Memo'').[9] Additionally, the EPA further clarified the recommended procedures for processing ambient visibility data and optionally adjusting the URP to account for international anthropogenic and prescribed fire impacts in two technical guidance documents: the December 2018 ''Technical Guidance on Tracking Visibility Progress for the Second Implementation Period of the Regional Haze Program'' (''2018 Visibility Tracking Guidance''),[10] and the June 2020 ''Recommendation for the Use of Patched and Substituted Data and Clarification of Data Completeness for Tracking Visibility Progress for the Second Implementation Period of the Regional Haze Program'' and associated Technical Addendum (''2020 Data Completeness Memo'').[11]

As previously explained in the 2021 Clarifications Memo, EPA intends the second implementation period of the regional haze program to secure meaningful reductions in visibility impairing pollutants that build on the significant progress states have achieved to date. The Agency also recognizes that analyses regarding reasonable progress are state-specific and that, based on states' and sources' individual circumstances, what constitutes reasonable reductions in visibility impairing pollutants will vary from state-to-state. While there exist many opportunities for states to leverage both ongoing and upcoming emission reductions under other CAA programs, the Agency expects states to undertake rigorous reasonable progress analyses that identify further opportunities to advance the national visibility goal consistent with the statutory and regulatory requirements. See generally 2021 Clarifications Memo. This is consistent with Congress's determination that a visibility protection program is needed in addition to the CAA's National Ambient Air Quality Standards and Prevention of Significant Deterioration programs, as further emission reductions may be necessary to adequately protect visibility in Class I areas throughout the country.[12]

B. Roles of Agencies in Addressing Regional Haze

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

of progress that would be achieved by the state's chosen set of control measures and the URP.'' (82 FR 3078, 3084, January 10, 2017).

[7] The EPA's regulations define ''Federal Land Manager'' as ''the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee) or, with respect to Roosevelt-Campobello International Park, the Chairman of the Roosevelt-Campobello International Park Commission.'' 40 CFR 51.301.

[8] Guidance on Regional Haze State Implementation Plans for the Second Implementation Period. *https://www.epa.gov/visibility/guidance-regional-haze-state-implementation-plans-second-implementation-period* The EPA Office of Air Quality Planning and Standards, Research Triangle Park (August 20, 2019).

[9] Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period. *https://www.epa.gov/system/files/documents/2021-07/clarifications-regarding-regional-haze-state-implementation-plans-for-the-second-implementation-period.pdf.* The EPA Office of Air Quality Planning and Standards, Research Triangle Park (July 8, 2021).

[10] Technical Guidance on Tracking Visibility Progress for the Second Implementation Period of the Regional Haze Program. *https://www.epa.gov/visibility/technical-guidance-tracking-visibility-progress-second-implementation-period-regional* The EPA Office of Air Quality Planning and Standards, Research Triangle Park. (December 20, 2018).

[11] Recommendation for the Use of Patched and Substituted Data and Clarification of Data Completeness for Tracking Visibility Progress for the Second Implementation Period of the Regional Haze Program. *https://www.epa.gov/visibility/memo-and-technical-addendum-ambient-data-usage-and-completeness-regional-haze-program* The EPA Office of Air Quality Planning and Standards, Research Triangle Park (June 3, 2020).

[12] See, *e.g.,* H.R. Rep No. 95–294 at 205 (''In determining how to best remedy the growing visibility problem in these areas of great scenic importance, the committee realizes that as a matter of equity, the national ambient air quality standards cannot be revised to adequately protect visibility in all areas of the country.''), (''the mandatory class I increments of [the PSD program] do not adequately protect visibility in class I areas'').

one jurisdiction on the air quality in another. Five regional planning organizations (RPOs),[13] which include representation from state and tribal governments, the EPA, and FLMs, were developed in the lead-up to the first implementation period to address regional haze. RPOs evaluate technical information to better understand how emissions from State and Tribal land impact Class I areas across the country, pursue the development of regional strategies to reduce emissions of particulate matter and other pollutants leading to regional haze, and help states meet the consultation requirements of the RHR.

The Mid-Atlantic/Northeast Visibility Union (MANE–VU), one of the five RPOs described above, 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 Mid-Atlantic and Northeast corridor of the United States. Member states and tribal governments (listed alphabetically) 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. The Federal partner members of MANE–VU are EPA, U.S. National Parks Service (NPS), U.S. Fish and Wildlife Service (FWS), and U.S. Forest Service (USFS).

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

Under the CAA and EPA's regulations, all 50 states, the District of Columbia, and the U.S. Virgin Islands are required to submit regional haze SIPs satisfying the applicable requirements for the second implementation period of the regional haze program by July 31, 2021. Each state's SIP must contain a long-term strategy for making reasonable progress toward meeting the national goal of remedying any existing and preventing any future anthropogenic visibility impairment in Class I areas. CAA 169A(b)(2)(B). To this end, § 51.308(f) lays out the process by which states determine what constitutes their long-term strategies, with the order of the requirements in § 51.308(f)(1) through (f)(3) generally mirroring the order of the steps in the reasonable progress analysis [14] and (f)(4) through (f)(6) containing additional, related requirements. Broadly speaking, a state first must identify the Class I areas within the state and determine the Class I areas outside the state in which visibility may be affected by emissions from the state. These are the Class I areas that must be addressed in the state's long-term strategy. See 40 CFR 51.308(f), (f)(2). For each Class I area within its borders, a state must then calculate the baseline, current, and natural visibility conditions for that area, as well as the visibility improvement made to date and the URP. See 40 CFR 51.308(f)(1). Each state having a Class I area and/or emissions that may affect visibility in a Class I area must then develop a long-term strategy that includes the enforceable emission limitations, compliance schedules, and other measures that are necessary to make reasonable progress in such areas. Reasonable progress is determined by applying the four factors in CAA section 169A(g)(1) to sources of visibility-impairing pollutants that the state has selected to assess for controls for the second implementation period. See 40 CFR 51.308(f)(2). A state evaluates potential emission reduction measures for those selected sources and determines which are necessary to make reasonable progress using the four statutory factors. Those measures are then incorporated into the state's long-term strategy. After a state has developed its long-term strategy, it then establishes RPGs for each Class I area within its borders by modeling the visibility impacts of all reasonable progress controls at the end of the second implementation period, *i.e.,* in 2028, as well as the impacts of other requirements of the CAA. The RPGs include reasonable progress controls not only for sources in the state in which the Class I area is located, but also for sources in other states that contribute to visibility impairment in that area. The RPGs are then compared to the baseline visibility conditions and the URP to ensure that progress is being made towards the statutory goal of preventing any future and remedying any existing anthropogenic visibility impairment in Class I areas. 40 CFR 51.308(f)(2)–(3).

In addition to satisfying the requirements at 40 CFR 51.308(f) related to reasonable progress, the SIP submissions due by July 31, 2021, for the second implementation period must address the requirements in § 51.308(g)(1) through (5) pertaining to periodic reports describing progress towards the RPGs, 40 CFR 51.308(f)(5), as well as requirements for FLM consultation that apply to all visibility protection SIPs and SIP revisions. 40 CFR 51.308(i).

A state must submit its regional haze SIP and subsequent SIP revisions to the EPA according to the requirements applicable to all SIP revisions under the CAA and EPA's regulations. See CAA 169(b)(2); CAA 110(a). Upon EPA approval, a SIP is enforceable by the Agency and the public under the CAA. If EPA finds that a state fails to make a required SIP revision, or if the EPA finds that a state's SIP is incomplete or if disapproves the SIP, the Agency must promulgate a federal implementation plan (FIP) that satisfies the applicable requirements. CAA 110(c)(1).

A. Identification of Class I Areas

The SIP revision submission due by July 31, 2021, ''must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State that may be affected by emissions from within the State.'' 40 CFR 51.308(f); see also 51.308(f)(2).[15] Thus, the first step in developing a regional haze SIP is for a state to determine which Class I areas, in addition to those within its borders, ''may be affected'' by emissions from within the state. In the 1999 RHR, the EPA determined that all states contribute to visibility impairment in at least one Class I area, 64 FR at 35720–22, and explained that the statute and regulations lay out an ''extremely low triggering threshold'' for determining ''whether States should be required to engage in air quality planning and analysis as a prerequisite to determining the need for control of emissions from sources within their State.'' *Id.* at 35721.

A state must determine which Class I areas must be addressed by its SIP by evaluating the total emissions of visibility impairing pollutants from all sources within the state. While the RHR does not require this evaluation to be conducted in any particular manner, EPA's 2019 Guidance provides recommendations for how such an assessment might be accomplished, including by, where appropriate, using the determinations previously made for the first implementation period. 2019

[13] RPOs are sometimes also referred to as ''multi-jurisdictional organizations,'' or MJOs. For the purposes of this notice, the terms RPO and MJO are synonymous.

[14] EPA explained in the 2017 RHR Revisions that we were adopting new regulatory language in 40 CFR 51.308(f) that, unlike the structure in 51.308(d), ''tracked the actual planning sequence.'' (82 FR 3091, January 10, 2017).

[15] The RHR uses the phrase ''that may be affected by emissions from the State'' to implement CAA 169A(b)(2)'s requirement that a state ''the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility'' submit a SIP.

Guidance at 8–9. In addition, the determination of which Class I areas may be affected by a state's emissions is subject to the requirement in 40 CFR 51.308(f)(2)(iii) to ''document the technical basis, including modeling, monitoring, cost, engineering, and emissions information, on which the State is relying to determine the emission reduction measures that are necessary to make reasonable progress in each mandatory Class I Federal area it affects.''

B. Calculations of Baseline, Current, and Natural Visibility Conditions; Progress to Date; and the Uniform Rate of Progress

As part of assessing whether a SIP submission for the second implementation period is providing for reasonable progress towards the national visibility goal, the RHR contains requirements in § 51.308(f)(1) related to tracking visibility improvement over time. The requirements of this subsection apply only to states having Class I areas within their borders; the required calculations must be made for each such Class I area. EPA's 2018 Visibility Tracking Guidance [16] provides recommendations to assist states in satisfying their obligations under § 51.308(f)(1); specifically, in developing information on baseline, current, and natural visibility conditions, and in making optional adjustments to the URP to account for the impacts of international anthropogenic emissions and prescribed fires. See 82 FR at 3103–05.

The RHR requires tracking of visibility conditions on two sets of days: the clearest and the most impaired days. Visibility conditions for both sets of days are expressed as the average deciview index for the relevant five-year period (the period representing baseline or current visibility conditions). The RHR provides that the relevant sets of days for visibility tracking purposes are the 20% clearest (the 20% of monitored days in a calendar year with the lowest values of the deciview index) and 20% most impaired days (the 20% of monitored days in a calendar year with the highest amounts of anthropogenic visibility impairment).[17] 40 CFR 51.301. A state must calculate visibility conditions for both the 20% clearest and 20% most impaired days for the baseline period of 2000–2004 and the most recent five-year period for which visibility monitoring data are available (representing current visibility conditions). 40 CFR 51.308(f)(1)(i), (iii). States must also calculate natural visibility conditions for the clearest and most impaired days,[18] by estimating the conditions that would exist on those two sets of days absent anthropogenic visibility impairment. 40 CFR 51.308(f)(1)(ii). Using all these data, states must then calculate, for each Class I area, the amount of progress made since the baseline period (2000–2004) and how much improvement is left to achieve in order to reach natural visibility conditions.

Using the data for the set of most impaired days only, states must plot a line between visibility conditions in the baseline period and natural visibility conditions for each Class I area to determine the URP—the amount of visibility improvement, measured in deciviews, that would need to be achieved during each implementation period in order to achieve natural visibility conditions by the end of 2064. The URP is used in later steps of the reasonable progress analysis for informational purposes and to provide a non-enforceable benchmark against which to assess a Class I area's rate of visibility improvement.[19] Additionally, in the 2017 RHR Revisions, the EPA provided states the option of proposing to adjust the endpoint of the URP to account for impacts of anthropogenic sources outside the United States and/or impacts of certain types of wildland prescribed fires. These adjustments, which must be approved by the EPA, are intended to avoid any perception that states should compensate for impacts from international anthropogenic sources and to give states the flexibility to determine that limiting the use of wildland-prescribed fire is not necessary for reasonable progress. 82 FR 3107 footnote 116.

EPA's 2018 Visibility Tracking Guidance can be used to help satisfy the 40 CFR 51.308(f)(1) requirements, including in developing information on baseline, current, and natural visibility conditions, and in making optional adjustments to the URP. In addition, the 2020 Data Completeness Memo provides recommendations on the data completeness language referenced in § 51.308(f)(1)(i) and provides updated natural conditions estimates for each Class I area.

C. Long-Term Strategy for Regional Haze

The core component of a regional haze SIP submission is a long-term strategy that addresses regional haze in each Class I area within a state's borders and each Class I area that may be affected by emissions from the state. The long-term strategy ''must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to (f)(2)(i) through (iv).'' 40 CFR 51.308(f)(2). The amount of progress that is ''reasonable progress'' is determined by applying the four statutory factors in CAA section 169A(g)(1) in an evaluation of potential control options for sources of visibility impairing pollutants, which is referred to as a ''four-factor'' analysis. The outcome of that analysis is the emission reduction measures that a particular source or group of sources needs to implement in order to make reasonable progress towards the national visibility goal. See 40 CFR 51.308(f)(2)(i). Emission reduction measures that are necessary to make reasonable progress may be either new, additional control measures for a source, or they may be the existing emission reduction measures that a source is already implementing. See 2019 Guidance at 43; 2021 Clarifications Memo at 8–10. Such measures must be represented by ''enforceable emissions limitations, compliance schedules, and other measures'' (*i.e.,* any additional compliance tools) in a state's long-term strategy in its SIP. 40 CFR 51.308(f)(2).

Section 51.308(f)(2)(i) provides the requirements for the four-factor analysis. The first step of this analysis entails selecting the sources to be evaluated for emission reduction measures; to this end, the RHR requires states to consider ''major and minor stationary sources or groups of sources, mobile sources, and area sources'' of visibility impairing pollutants for potential four-factor control analysis. 40

[16] The 2018 Visibility Tracking Guidance references and relies on parts of the 2003 Tracking Guidance: ''Guidance for Tracking Progress Under the Regional Haze Rule,'' which can be found at *https://www3.epa.gov/ttnamti1/files/ambient/visible/tracking.pdf.*

[17] This notice also refers to the 20% clearest and 20% most anthropogenically impaired days as the ''clearest'' and ''most impaired'' or ''most anthropogenically impaired'' days, respectively.

[18] The RHR at 40 CFR 51.308(f)(1)(ii) contains an error related to the requirement for calculating two sets of natural conditions values. The rule says ''most impaired days or the clearest days'' where it should say ''most impaired days and clearest days.'' This is an error that was intended to be corrected in the 2017 RHR Revisions but did not get corrected in the final rule language. This is supported by the preamble text at 82 FR 3098: ''In the final version of 40 CFR 51.308(f)(1)(ii), an occurrence of ''or'' has been corrected to ''and'' to indicate that natural visibility conditions for both the most impaired days and the clearest days must be based on available monitoring information.''

[19] Being on or below the URP is not a ''safe harbor''; *i.e.,* achieving the URP does not mean that a Class I area is making ''reasonable progress'' and does not relieve a state from using the four statutory factors to determine what level of control is needed to achieve such progress. *See, e.g.,* 82 FR at 3093.

CFR 51.308(f)(2)(i). A threshold question at this step is which visibility impairing pollutants will be analyzed. As EPA previously explained, consistent with the first implementation period, EPA generally expects that each state will analyze at least SO_2 and NO_X in selecting sources and determining control measures. See 2019 Guidance at 12, 2021 Clarifications Memo at 4. A state that chooses not to consider at least these two pollutants should demonstrate why such consideration would be unreasonable. 2021 Clarifications Memo at 4.

While states have the option to analyze *all* sources, the 2019 Guidance explains that ''an analysis of control measures is not required for every source in each implementation period,'' and that ''[s]electing a set of sources for analysis of control measures in each implementation period is . . . consistent with the Regional Haze Rule, which sets up an iterative planning process and anticipates that a state may not need to analyze control measures for all its sources in a given SIP revision.'' 2019 Guidance at 9. However, given that source selection is the basis of all subsequent control determinations, a reasonable source selection process ''should be designed and conducted to ensure that source selection results in a set of pollutants and sources the evaluation of which has the potential to meaningfully reduce their contributions to visibility impairment.'' 2021 Clarifications Memo at 3.

EPA explained in the 2021 Clarifications Memo that each state has an obligation to submit a long-term strategy that addresses the regional haze visibility impairment that results from emissions from within that state. Thus, source selection should focus on the in-state contribution to visibility impairment and be designed to capture a meaningful portion of the state's total contribution to visibility impairment in Class I areas. A state should not decline to select its largest in-state sources on the basis that there are even larger out-of-state contributors. 2021 Clarifications Memo at 4.[20]

Thus, while states have discretion to choose any source selection methodology that is reasonable, whatever choices they make should be reasonably explained and result in a set of sources which capture a meaningful portion of the state's total contribution to visibility impairment. To this end, 40 CFR 51.308(f)(2)(i) requires that a state's SIP submission include ''a description of the criteria it used to determine which sources or groups of sources it evaluated.'' The technical basis for source selection, which may include methods for quantifying potential visibility impacts such as emissions divided by distance metrics, trajectory analyses, residence time analyses, and/or photochemical modeling, must also be appropriately documented, as required by 40 CFR 51.308(f)(2)(iii).

Once a state has selected the set of sources, the next step is to determine the emissions reduction measures for those sources that are necessary to make reasonable progress for the second implementation period.[21] This is accomplished by considering the four factors—''the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements.'' CAA 169A(g)(1). The EPA has explained that the four-factor analysis is an assessment of potential emission reduction measures (*i.e.,* control options) for sources; ''use of the terms 'compliance' and 'subject to such requirements' in section 169A(g)(1) strongly indicates that Congress intended the relevant determination to be the requirements with which sources would have to comply in order to satisfy the CAA's reasonable progress mandate.'' 82 FR at 3091. Thus, for each source it has selected for four-factor analysis,[22] a state must consider a ''meaningful set'' of technically feasible control options for reducing emissions of visibility impairing pollutants. *Id.* at 3088. The 2019 Guidance provides that ''[a] state must reasonably pick and justify the measures that it will consider, recognizing that there is no statutory or regulatory requirement to consider all technically feasible measures or any particular measures. A range of technically feasible measures available to reduce emissions would be one way to justify a reasonable set.'' 2019 Guidance at 29.

EPA's 2021 Clarifications Memo provides further guidance on what constitutes a reasonable set of control options for consideration: ''A reasonable four-factor analysis will consider the full range of potentially reasonable options for reducing emissions.'' 2021 Clarifications Memo at 7. In addition to add-on controls and other retrofits (*i.e.,* new emission reduction measures for sources), EPA explained that states should generally analyze efficiency improvements for sources' existing measures as control options in their four-factor analyses, as in many cases such improvements are reasonable given that they typically involve only additional operation and maintenance costs. Additionally, the 2021 Clarifications Memo provides that states that have assumed a higher emission rate than a source has achieved or could potentially achieve using its existing measures should also consider lower emission rates as potential control options. That is, a state should consider a source's recent actual and projected emission rates to determine if it could reasonably attain lower emission rates with its existing measures. If so, the state should analyze the lower emission rate as a control option for reducing emissions. 2021 Clarifications Memo at 7. The EPA's recommendations to analyze potential efficiency improvements and achievable lower emission rates apply to both sources that have been selected for four-factor analysis and those that have forgone a four-factor analysis on the basis of existing ''effective controls.'' See 2021 Clarifications Memo at 5, 10.

After identifying a reasonable set of potential control options for the sources it has selected, a state then collects information on the four factors with regard to each option identified. The EPA has also explained that, in addition to the four statutory factors, states have flexibility under the CAA and RHR to reasonably consider visibility benefits as

[20] Similarly, in responding to comments on the 2017 RHR Revisions EPA explained that ''[a] state should not fail to address its many relatively low-impact sources merely because it only has such sources and another state has even more low-impact sources and/or some high impact sources.'' Responses to Comments on Protection of Visibility: Amendments to Requirements for State Plans; Proposed Rule (81 FR 26942, May 4, 2016) at 87–88.

[21] The CAA provides that, ''[i]n determining reasonable progress there shall be taken into consideration'' the four statutory factors. CAA 169A(g)(1). However, in addition to four-factor analyses for selected sources, groups of sources, or source categories, a state may also consider additional emission reduction measures for inclusion in its long-term strategy, *e.g.,* from other newly adopted, on-the-books, or on-the-way rules and measures for sources not selected for four-factor analysis for the second planning period.

[22] ''Each source'' or ''particular source'' is used here as shorthand. While a source-specific analysis is one way of applying the four factors, neither the statute nor the RHR requires states to evaluate individual sources. Rather, states have ''the flexibility to conduct four-factor analyses for specific sources, groups of sources or even entire source categories, depending on state policy preferences and the specific circumstances of each state.'' 82 FR at 3088. However, not all approaches to grouping sources for four-factor analysis are necessarily reasonable; the reasonableness of grouping sources in any particular instance will depend on the circumstances and the manner in which grouping is conducted. If it is feasible to establish and enforce different requirements for sources or subgroups of sources, and if relevant factors can be quantified for those sources or subgroups, then states should make a separate reasonable progress determination for each source or subgroup. 2021 Clarifications Memo at 7–8.

an optional fifth factor alongside the four statutory factors.[23] The 2019 Guidance provides recommendations for the types of information that can be used to characterize the four factors (with or without visibility), as well as ways in which states might reasonably consider and balance that information to determine which of the potential control options is necessary to make reasonable progress. See 2019 Guidance at 30–36. The 2021 Clarifications Memo contains further guidance on how states can reasonably consider modeled visibility impacts or benefits in the context of a four-factor analysis. 2021 Clarifications Memo at 12–13, 14–15. Specifically, EPA explained that while visibility can reasonably be used when comparing and choosing between multiple reasonable control options, it should not be used to summarily reject controls that are reasonable given the four statutory factors. 2021 Clarifications Memo at 13. Ultimately, while states have discretion to reasonably weigh the factors and to determine what level of control is needed, § 51.308(f)(2)(i) provides that a state ''must include in its implementation plan a description of . . . how the four factors were taken into consideration in selecting the measure for inclusion in its long-term strategy.''

As explained above, § 51.308(f)(2)(i) requires states to determine the emission reduction measures for sources that are necessary to make reasonable progress by considering the four factors. Pursuant to § 51.308(f)(2), measures that are necessary to make reasonable progress towards the national visibility goal must be included in a state's long-term strategy and in its SIP.[24] If the outcome of a four-factor analysis is a new, additional emission reduction measure for a source, that new measure is necessary to make reasonable progress towards remedying existing anthropogenic visibility impairment and must be included in the SIP. If the outcome of a four-factor analysis is that no new measures are reasonable for a source, continued implementation of the source's existing measures is generally necessary to prevent future emission increases and thus to make reasonable progress towards the second part of the national visibility goal: preventing future anthropogenic visibility impairment. See CAA 169A(a)(1). That is, when the result of a four-factor analysis is that no new measures are necessary to make reasonable progress, the source's existing measures are generally necessary to make reasonable progress and must be included in the SIP. However, there may be circumstances in which a state can demonstrate that a source's existing measures are *not* necessary to make reasonable progress. Specifically, if a state can demonstrate that a source will continue to implement its existing measures and will not increase its emission rate, it may not be necessary to have those measures in the long-term strategy in order to prevent future emission increases and future visibility impairment. EPA's 2021 Clarifications Memo provides further explanation and guidance on how states may demonstrate that a source's existing measures are not necessary to make reasonable progress. See 2021 Clarifications Memo at 8–10. If the state can make such a demonstration, it need not include a source's existing measures in the long-term strategy or its SIP.

As with source selection, the characterization of information on each of the factors is also subject to the documentation requirement in § 51.308(f)(2)(iii). The reasonable progress analysis, including source selection, information gathering, characterization of the four statutory factors (and potentially visibility), balancing of the four factors, and selection of the emission reduction measures that represent reasonable progress, is a technically complex exercise, but also a flexible one that provides states with bounded discretion to design and implement approaches appropriate to their circumstances. Given this flexibility, § 51.308(f)(2)(iii) plays an important function in requiring a state to document the technical basis for its decision making so that the public and the EPA can comprehend and evaluate the information and analysis the state relied upon to determine what emission reduction measures must be in place to make reasonable progress. The technical documentation must include the modeling, monitoring, cost, engineering, and emissions information on which the state relied to determine the measures necessary to make reasonable progress. This documentation requirement can be met through the provision of and reliance on technical analyses developed through a regional planning process, so long as that process and its output has been approved by all state participants. In addition to the explicit regulatory requirement to document the technical basis of their reasonable progress determinations, states are also subject to the general principle that those determinations must be reasonably moored to the statute.[25] That is, a state's decisions about the emission reduction measures that are necessary to make reasonable progress must be consistent with the statutory goal of remedying existing and preventing future visibility impairment.

The four statutory factors (and potentially visibility) are used to determine what emission reduction measures for selected sources must be included in a state's long-term strategy for making reasonable progress. Additionally, the RHR at 40 CFR 51.3108(f)(2)(iv) separately provides five ''additional factors'' [26] that states must consider in developing their long-term strategies: (1) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment; (2) measures to reduce the impacts of construction activities; (3) source retirement and replacement schedules; (4) basic smoke management practices for prescribed fire used for agricultural and wildland vegetation management purposes and smoke management programs; and (5) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy. The 2019 Guidance provides that a state may satisfy this requirement by considering these additional factors in the process of selecting sources for four-factor analysis, when performing that analysis, or both, and that not every one of the additional factors needs to be considered at the same stage of the process. See 2019 Guidance at 21. EPA

[23] See, *e.g.,* Responses to Comments on Protection of Visibility: Amendments to Requirements for State Plans; Proposed Rule (81 FR 26942, May 4, 2016), Docket Number EPA–HQ–OAR–2015–0531, U.S. Environmental Protection Agency at 186; 2019 Guidance at 36–37.

[24] States may choose to, but are not required to, include measures in their long-term strategies beyond just the emission reduction measures that are necessary for reasonable progress. See 2021 Clarifications Memo at 16. For example, states with smoke management programs may choose to submit their smoke management plans to EPA for inclusion in their SIPs but are not required to do so. See, *e.g.,* 82 FR at 3108–09 (requirement to consider smoke management practices and smoke management programs under 40 CFR 51.308(f)(2)(iv) does not require states to adopt such practices or programs into their SIPs, although they may elect to do so).

[25] See *Arizona ex rel. Darwin* v. *U.S. EPA,* 815 F.3d 519, 531 (9th Cir. 2016); *Nebraska* v. *U.S. EPA,* 812 F.3d 662, 668 (8th Cir. 2016); *North Dakota* v. *EPA,* 730 F.3d 750, 761 (8th Cir. 2013); *Oklahoma* v. *EPA,* 723 F.3d 1201, 1206, 1208–10 (10th Cir. 2013); cf. also *Nat'l Parks Conservation Ass'n* v. *EPA,* 803 F.3d 151, 165 (3d Cir. 2015); *Alaska Dep't of Envtl. Conservation* v. *EPA,* 540 U.S. 461, 485, 490 (2004).

[26] The five ''additional factors'' for consideration in section 51.308(f)(2)(iv) are distinct from the four factors listed in CAA section 169A(g)(1) and 40 CFR 51.308(f)(2)(i) that states must consider and apply to sources in determining reasonable progress.

provided further guidance on the five additional factors in the 2021 Clarifications Memo, explaining that a state should generally not reject cost-effective and otherwise reasonable controls merely because there have been emission reductions since the first planning period owing to other ongoing air pollution control programs or merely because visibility is otherwise projected to improve at Class I areas. Additionally, states should not rely on these additional factors to summarily assert that the state has already made sufficient progress and, therefore, no sources need to be selected or no new controls are needed regardless of the outcome of four-factor analyses. States can, however, consider these factors in a more tailored manner, *e.g.,* in choosing between multiple control options when all are reasonable based on the four statutory factors.[27] 2021 Clarifications Memo at 13.

Because the air pollution that causes regional haze crosses state boundaries, § 51.308(f)(2)(ii) requires a state to consult with other states that also have emissions that are reasonably anticipated to contribute to visibility impairment in a given Class I area. Consultation allows for each state that impacts visibility in an area to share whatever technical information, analyses, and control determinations may be necessary to develop coordinated emission management strategies. This coordination may be managed through inter- and intra-RPO consultation and the development of regional emissions strategies; additional consultations between states outside of RPO processes may also occur. If a state, pursuant to consultation, agrees that certain measures (*e.g.,* a certain emission limitation) are necessary to make reasonable progress at a Class I area, it must include those measures in its SIP. 40 CFR 51.308(f)(2)(ii)(A). Additionally, the RHR requires that states that contribute to visibility impairment at the same Class I area consider the emission reduction measures the other contributing states have identified as being necessary to make reasonable progress for their own sources. 40 CFR 51.308(f)(2)(ii)(B). If a state has been asked to consider or adopt certain emission reduction measures, but ultimately determines those measures are not necessary to make reasonable progress, that state must document in its SIP the actions taken to resolve the disagreement. 40 CFR 51.308(f)(2)(ii)(C). The EPA will consider the technical information and explanations presented by the submitting state and the state with which it disagrees when considering whether to approve the state's SIP. See *id.;* 2019 Guidance at 53. Under all circumstances, a state must document in its SIP submission all substantive consultations with other contributing states. 40 CFR 51.308(f)(2)(ii)(C).

D. Reasonable Progress Goals

Reasonable progress goals ''measure the progress that is projected to be achieved by the control measures states have determined are necessary to make reasonable progress based on a four-factor analysis.'' 82 FR at 3091. Their primary purpose is to assist the public and the EPA in assessing the reasonableness of states' long-term strategies for making reasonable progress towards the national visibility goal. See 40 CFR 51.308(f)(3)(iii)–(iv). States in which Class I areas are located must establish two RPGs, both in deciviews—one representing visibility conditions on the clearest days and one representing visibility on the most anthropogenically impaired days—for each area within their borders. 40 CFR 51.308(f)(3)(i). The two RPGs are intended to reflect the projected impacts, on the two sets of days, of the emission reduction measures the state with the Class I area, as well as all other contributing states, have included in their long-term strategies for the second implementation period.[28] The RPGs also account for the projected impacts of implementing other CAA requirements, including non-SIP based requirements. Because RPGs are the modeled result of the measures in states' long-term strategies (as well as other measures required under the CAA), they cannot be determined before states have conducted their four-factor analyses and determined the control measures that are necessary to make reasonable progress. See 2021 Clarifications Memo at 6.

For the second implementation period, the RPGs are set for 2028. Reasonable progress goals are not enforceable targets, 40 CFR 51.308(f)(3)(iii); rather, they ''provide a way for the states to check the projected outcome of the [long-term strategy] against the goals for visibility improvement.'' 2019 Guidance at 46. While states are not legally obligated to achieve the visibility conditions described in their RPGs, § 51.308(f)(3)(i) requires that ''[t]he long-term strategy and the reasonable progress goals must provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period.'' Thus, states are required to have emission reduction measures in their long-term strategies that are projected to achieve visibility conditions on the most impaired days that are better than the baseline period and shows no degradation on the clearest days compared to the clearest days from the baseline period. The baseline period for the purpose of this comparison is the baseline visibility condition—the annual average visibility condition for the period 2000–2004. See 40 CFR 51.308(f)(1)(i), 82 FR at 3097–98.

So that RPGs may also serve as a metric for assessing the amount of progress a state is making towards the national visibility goal, the RHR requires states with Class I areas to compare the 2028 RPG for the most impaired days to the corresponding point on the URP line (representing visibility conditions in 2028 if visibility were to improve at a linear rate from conditions in the baseline period of 2000–2004 to natural visibility conditions in 2064). If the most impaired days RPG in 2028 is above the URP (*i.e.,* if visibility conditions are improving more slowly than the rate described by the URP), each state that contributes to visibility impairment in the Class I area must demonstrate, based on the four-factor analysis required under 40 CFR 51.308(f)(2)(i), that no additional emission reduction measures would be reasonable to include in its long-term strategy. 40 CFR 51.308(f)(3)(ii). To this end, 40 CFR 51.308(f)(3)(ii) requires that each state contributing to visibility impairment in a Class I area that is projected to improve more slowly than the URP provide ''a robust demonstration, including documenting the criteria used to determine which sources or groups [of] sources were evaluated and how the four factors required by paragraph (f)(2)(i) were taken into consideration in selecting the measures for inclusion in its long-term strategy.'' The 2019

[27] In particular, EPA explained in the 2021 Clarifications Memo that states should not rely on the considerations in 40 CFR 51.308(f)(2)(iv)(A) and (E) to summarily assert that the state has already made sufficient progress and therefore does not need to achieve any additional emission reductions. 2021 Clarifications Memo at 13.

[28] RPGs are intended to reflect the projected impacts of the measures all contributing states include in their long-term strategies. However, due to the timing of analyses and of control determinations by other states, other on-going emissions changes, a particular state's RPGs may not reflect all control measures and emissions reductions that are expected to occur by the end of the implementation period. The 2019 Guidance provides recommendations for addressing the timing of RPG calculations when states are developing their long-term strategies on disparate schedules, as well as for adjusting RPGs using a post-modeling approach. 2019 Guidance at 47–48.

Guidance provides suggestions about how such a ''robust demonstration'' might be conducted. See 2019 Guidance at 50–51.

The 2017 RHR, 2019 Guidance, and 2021 Clarifications Memo also explain that projecting an RPG that is on or below the URP based on only on-the-books and/or on-the-way control measures (*i.e.,* control measures already required or anticipated before the four-factor analysis is conducted) is not a ''safe harbor'' from the CAA's and RHR's requirement that all states must conduct a four-factor analysis to determine what emission reduction measures constitute reasonable progress. The URP is a planning metric used to gauge the amount of progress made thus far and the amount left before reaching natural visibility conditions. However, the URP is not based on consideration of the four statutory factors and therefore cannot answer the question of whether the amount of progress being made in any particular implementation period is ''reasonable progress.'' See 82 FR at 3093, 3099–3100; 2019 Guidance at 22; 2021 Clarifications Memo at 15–16.

E. Monitoring Strategy and Other State Implementation Plan Requirements

Section 51.308(f)(6) requires states to have certain strategies and elements in place for assessing and reporting on visibility. Individual requirements under this subsection apply either to states with Class I areas within their borders, states with no Class I areas but that are reasonably anticipated to cause or contribute to visibility impairment in any Class I area, or both. A state with Class I areas within its borders must submit with its SIP revision a monitoring strategy for measuring, characterizing, and reporting regional haze visibility impairment that is representative of all Class I areas within the state. SIP revisions for such states must also provide for the establishment of any additional monitoring sites or equipment needed to assess visibility conditions in Class I areas, as well as reporting of all visibility monitoring data to the EPA at least annually. Compliance with the monitoring strategy requirement may be met through a state's participation in the Interagency Monitoring of Protected Visual Environments (IMPROVE) monitoring network, which is used to measure visibility impairment caused by air pollution at the 156 Class I areas covered by the visibility program. 40 CFR 51.308(f)(6), (f)(6)(i), (f)(6)(iv). The IMPROVE monitoring data is used to determine the 20% most anthropogenically impaired and 20% clearest sets of days every year at each Class I area and tracks visibility impairment over time.

All states' SIPs must provide for procedures by which monitoring data and other information are used to determine the contribution of emissions from within the state to regional haze visibility impairment in affected Class I areas. 40 CFR 51.308(f)(6)(ii), (iii). *S*ection 51.308(f)(6)(v) further requires that all states' SIPs provide for a statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any Class I area; the inventory must include emissions for the most recent year for which data are available and estimates of future projected emissions. States must also include commitments to update their inventories periodically. The inventories themselves do not need to be included as elements in the SIP and are not subject to EPA review as part of the Agency's evaluation of a SIP revision.[29] All states' SIPs must also provide for any other elements, including reporting, recordkeeping, and other measures, that are necessary for states to assess and report on visibility. 40 CFR 51.308(f)(6)(vi). Per the 2019 Guidance, a state may note in its regional haze SIP that its compliance with the Air Emissions Reporting Rule (AERR) in 40 CFR part 51 Subpart A satisfies the requirement to provide for an emissions inventory for the most recent year for which data are available. To satisfy the requirement to provide estimates of future projected emissions, a state may explain in its SIP how projected emissions were developed for use in establishing RPGs for its own and nearby Class I areas.[30]

Separate from the requirements related to monitoring for regional haze purposes under 40 CFR 51.308(f)(6), the RHR also contains a requirement at § 51.308(f)(4) related to any additional monitoring that may be needed to address visibility impairment in Class I areas from a single source or a small group of sources. This is called ''reasonably attributable visibility impairment.'' [31] Under this provision, if the EPA or the FLM of an affected Class I area has advised a state that additional monitoring is needed to assess reasonably attributable visibility impairment, the state must include in its SIP revision for the second implementation period an appropriate strategy for evaluating such impairment.

F. Requirements for Periodic Reports Describing Progress Towards the Reasonable Progress Goals

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

A core component of the progress report requirements is an assessment of changes in visibility conditions on the clearest and most impaired days. For second implementation period progress reports, § 51.308(g)(3) requires states with Class I areas within their borders to first determine current visibility conditions for each area on the most impaired and clearest days, 40 CFR 51.308(g)(3)(i)(B), and then to calculate the difference between those current conditions and baseline (2000–2004) visibility conditions in order to assess progress made to date. See 40 CFR 51.308(g)(3)(ii)(B). States must also assess the changes in visibility impairment for the most impaired and clearest days since they submitted their first implementation period progress reports. See 40 CFR 51.308(g)(3)(iii)(B), (f)(5). Since different states submitted their first implementation period progress reports at different times, the starting point for this assessment will vary state by state.

Similarly, states must provide analyses tracking the change in emissions of pollutants contributing to visibility impairment from all sources and activities within the state over the period since they submitted their first implementation period progress reports. See 40 CFR 51.308(g)(4), (f)(5). Changes in emissions should be identified by the

[29] See ''Step 8: Additional requirements for regional haze SIPs'' in 2019 Regional Haze Guidance at 55.

[30] *Id.*

[31] EPA's visibility protection regulations define ''reasonably attributable visibility impairment'' as ''visibility impairment that is caused by the emission of air pollutants from one, or a small number of sources.'' 40 CFR 51.301.

type of source or activity. Section 51.308(g)(5) also addresses changes in emissions since the period addressed by the previous progress report and requires states' SIP revisions to include an assessment of any significant changes in anthropogenic emissions within or outside the state. This assessment must include an explanation of whether these changes in emissions were anticipated and whether they have limited or impeded progress in reducing emissions and improving visibility relative to what the state projected based on its long-term strategy for the first implementation period.

G. Requirements for State and Federal Land Manager Coordination

Clean Air Act section 169A(d) requires that before a state holds a public hearing on a proposed regional haze SIP revision, it must consult with the appropriate FLM or FLMs; pursuant to that consultation, the state must include a summary of the FLMs' conclusions and recommendations in the notice to the public. Consistent with this statutory requirement, the RHR also requires that states ''provide the [FLM] with an opportunity for consultation, in person and at a point early enough in the State's policy analyses of its long-term strategy emission reduction obligation so that information and recommendations provided by the [FLM] can meaningfully inform the State's decisions on the long-term strategy.'' 40 CFR 51.308(i)(2). Consultation that occurs 120 days prior to any public hearing or public comment opportunity will be deemed ''early enough,'' but the RHR provides that in any event the opportunity for consultation must be provided at least 60 days before a public hearing or comment opportunity. This consultation must include the opportunity for the FLMs to discuss their assessment of visibility impairment in any Class I area and their recommendations on the development and implementation of strategies to address such impairment. 40 CFR 51.308(i)(2). In order for the EPA to evaluate whether FLM consultation meeting the requirements of the RHR has occurred, the SIP submission should include documentation of the timing and content of such consultation. The SIP revision submitted to the EPA must also describe how the state addressed any comments provided by the FLMs. 40 CFR 51.308(i)(3). Finally, a SIP revision must provide procedures for continuing consultation between the state and FLMs regarding the state's visibility protection program, including development and review of SIP revisions, five-year progress reports, and the implementation of other programs having the potential to contribute to impairment of visibility in Class I areas. 40 CFR 51.308(i)(4).

IV. The EPA's Evaluation of New Jersey's Regional Haze Submission for the Second Implementation Period

A. Background on New Jersey's First Implementation Period SIP Submission

NJDEP submitted its regional haze SIP for the first implementation period to the EPA on July 28, 2009, and supplemented it on December 9, 2010, March 2, 2011, and December 7, 2011. The EPA approved New Jersey's first implementation period regional haze SIP submission on January 3, 2012 (77 FR 19, January 3, 2012). EPA's approval included, but was not limited to, the portions of the plan that address the reasonable progress requirements, New Jersey's implementation of Best Available Retrofit Technologies on eligible sources, and New Jersey's Subchapter 9,[32] Sulfur in Fuels rule. The requirements for regional haze SIPs for the first implementation period are contained in 40 CFR 51.308(d) and (e). 40 CFR 51.308(b). Pursuant to 40 CFR 51.308(g), New Jersey was also responsible for submitting a five-year progress report as a SIP revision for the first implementation period, which it did on June 28, 2016. The EPA approved the progress report into the New Jersey SIP on September 29, 2017 (82 FR 45472, September 29, 2017).

B. New Jersey's Second Implementation Period SIP Submission and the EPA's Evaluation

In accordance with CAA sections 169A and the RHR at 40 CFR 51.308(f), on March 26, 2020,[33] NJDEP submitted a revision to the New Jersey SIP to address its regional haze obligations for the second implementation period, which runs through 2028. New Jersey made its 2020 Regional Haze SIP submission available for public comment on August 22, 2019. NJDEP received and responded to public comments and included the comments and responses to those comments in their submission.

The following sections describe New Jersey's SIP submission, including analyses conducted by MANE–VU and New Jersey's determinations based on those analyses, New Jersey's assessment of progress made since the first implementation period in reducing emissions of visibility impairing pollutants, and the visibility improvement progress at its Class I area and nearby Class I areas. This notice also contains EPA's evaluation of New Jersey's submission against the requirements of the CAA and RHR for the second implementation period of the regional haze program.

C. Identification of Class I Areas

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

The EPA explained in the 1999 RHR preamble that the CAA section 169A(b)(2) requirement that states submit SIPs to address visibility impairment establishes ''an 'extremely low triggering threshold' in determining which States should submit SIPs for regional haze.'' 64 FR at 35721. In concluding that each of the contiguous 48 states and the District of Columbia meet this threshold,[34] the EPA relied on ''a large body of evidence demonstrat[ing] that long-range transport of fine PM contributes to regional haze,'' *id.,* including modeling studies that ''preliminarily demonstrated that each State not having a Class I area had emissions contributing to impairment in at least one downwind Class I area.'' *Id.* at 35722. In addition to the technical evidence supporting a conclusion that each state contributes to *existing* visibility impairment, the EPA also explained that the second half of the national visibility goal—preventing *future* visibility impairment—requires having a framework in place to address future growth in visibility-impairing emissions and makes it inappropriate to ''establish criteria for excluding States

[32] See N.J.A.C. 7:27–9 ''Sulfur in Fuels''.

[33] NJDEP supplemented its SIP submission on September 8, 2020, and April 1, 2021.

[34] EPA determined that ''there is more than sufficient evidence to support our conclusion that emissions from each of the 48 contiguous states and the District of Columba may reasonably be anticipated to cause or contribute to visibility impairment in a Class I area.'' 64 FR at 35721. Hawaii, Alaska, and the U.S. Virgin Islands must also submit regional haze SIPs because they contain Class I areas.

or geographic areas from consideration as potential contributors to regional haze visibility impairment.'' *Id.* at 35721. Thus, the EPA concluded that the agency's ''statutory authority and the scientific evidence are sufficient to require all States to develop regional haze SIPs to ensure the prevention of any future impairment of visibility, and to conduct further analyses to determine whether additional control measures are needed to ensure reasonable progress in remedying existing impairment in downwind Class I areas.'' *Id.* at 35722. EPA's 2017 revisions to the RHR did not disturb this conclusion. *See* 82 FR at 3094.

New Jersey has one mandatory Class I Federal area within its borders, the Brigantine Wilderness Area of the Edwin B. Forsythe National Wildlife Refuge. For the second implementation period, MANE–VU performed technical analyses [35] to help assess source and state-level contributions to visibility impairment and the need for interstate consultation. MANE–VU used the results of these analyses to determine which states' emissions ''have a high likelihood of affecting visibility in MANE–VU's Class I areas.'' [36] Similar to metrics used in the first implementation period,[37] MANE–VU used a greater than 2 percent of sulfate plus nitrate emissions contribution criteria to determine whether emissions from individual jurisdictions within the region affected visibility in any Class I areas. The MANE–VU analyses for the second implementation period used a combination of data analysis techniques, including emissions data, distance from Class I areas, wind trajectories, and CALPUFF dispersion modeling. Although many of the analyses focused only on SO_2 emissions and resultant particulate sulfate contributions to visibility impairment, some also incorporated NO_X emissions to estimate particulate nitrate contributions.

One MANE–VU analysis used for contribution assessment was CALPUFF air dispersion modeling. The CALPUFF model was used to estimate sulfate and nitrate formation and transport in MANE–VU and nearby regions originating from large electric generating unit (EGU) point sources and other large industrial and institutional sources in the eastern and central United States. Information from an initial round of CALPUFF modeling was collated for the 444 EGUs that were determined to warrant further scrutiny based on their emissions of SO_2 and NO_X. The list of EGUs was based on an enhanced ''Q/d'' analysis [38] that considered recent SO_2 emissions in the eastern United States and an analysis that adjusted previous 2002 MANE–VU CALPUFF modeling by applying a ratio of 2011 to 2002 SO_2 emissions. This list of sources was then enhanced by including the top five SO_2 and NO_X emission sources for 2011 for each state included in the modeling domain. A total of 311 EGU stacks (as opposed to individual units) were included in the CALPUFF modeling analysis. Initial information was also collected on the 50 industrial and institutional sources that, according to 2011 Q/d analysis, contributed the most to visibility impact in each Class I area. The ultimate CALPUFF modeling run included a total of 311 EGU stacks and 82 industrial facilities. The summary report for the CALPUFF modeling included the top 10 most impacting EGUs and the top 5 most impacting industrial/institutional sources for each Class I area and compiled those results into a ranked list of the most impacting EGUs and industrial sources at MANE–VU Class I areas.[39]

New Jersey had an EGU and two industrial/institutional sources that were included in the MANE–VU CALPUFF modeling.[40] The modeling identified the EGU facility BL England (units 1, 2 & 3) as impacting the Brigantine Wilderness, Dolly Sods and Shenandoah Class I areas. Unit 1 ranked 4th on MANE–VU's list and units 2 & 3 ranked 10th for impacts at the Brigantine Wilderness Class I area. Although BL England impacted the Dolly Sods and Shenandoah Class I areas, it did not rank amongst the top 10 impacting EGUs. The two industrial/institutional sources identified by the modeling were Atlantic County Utilities Authority (ACUA), which ranked 5th for impacts at the Brigantine Wilderness Class I area, and Gerresheimer Moulded Glass, which was not ranked among the top 5 visibility impairing industrial/institutional sources at any Class I areas. In its submittal, New Jersey indicates that BL England ceased operations and shut down in May of 2019. NJDEP's Southern Air Compliance and Enforcement office conducted a site investigation at BL England September 20, 2019, and observed that units 1, 2, and 3 are decommissioned and rendered inoperable. On December 3, 2019, the NJDEP terminated the air operating permit at BL England Generating Station.[41] Additionally, at the time of the analysis, the industrial, commercial and institutional (ICI) boilers at ACUA and Gerresheimer Moulded Glass (now Corning Pharmaceutical Glass) contributed 1.67 inverse megameters (Mm–1) and 1.0 Mm–1, respectively, based on their close proximity to Brigantine. However, this assessment was based on the sources' 2011 configurations and emission rates. Currently, there are no permitted ICI boilers at these facilities. In 2019, ACUA's emissions were 19 tons per year (tpy) for NO_X and 19 tpy for SO_2, while the 2011 emissions of SO_2 were 907.88 tpy. The 2019 annual emissions at Corning Pharmaceuticals were 54 tpy for NO_X and 1 tpy for SO_2, while the 2011 emissions of SO_2 were 3,007.04 tpy.[42]

The second MANE–VU contribution analysis used a meteorologically weighted Q/d calculation to assess states' contributions to visibility impairment at MANE–VU Class I areas.[43] This analysis focused predominantly on SO_2 emissions and used cumulative SO_2 emissions from a source and a state for the variable ''Q,'' and the distance of the source or state to the IMPROVE monitor receptor at a Class I area as ''d.'' The result is then multiplied by a constant (C_i), which is determined based on the prevailing wind patterns. MANE–VU selected a meteorologically weighted Q/d analysis as an inexpensive initial screening tool that could easily be repeated to determine which states, sectors, or sources have a larger relative impacts and warrant further analysis. MANE–VU's analysis estimated New Jersey's maximum sulfate contribution was 1.32% at the Brigantine Wilderness Class I area based on the maximum daily impact; New Jersey's SO_2 emission contribution did not exceed 1% for any other Class I area. Although MANE–VU did not originally estimate nitrate impacts, the MANE–VU Q/d analysis was subsequently extended to account for nitrate contributions from NO_X emissions and to approximate the

[35] The contribution assessment methodologies for MANE–VU Class I areas are summarized in appendix E1 of the docket. ''Selection of States for MANE–VU Regional Haze Consultation (2018).''

[36] *Id.*

[37] See docket EPA–R02–OAR–2011–0607 for MANE–VU supporting materials.

[38] ''Q/d'' is emissions (Q) in tons per year, typically of one or a combination of visibility-impairing pollutants, divided by distance to a class I area (d) in kilometers. The resulting ratio is commonly used as a metric to assess a source's potential visibility impacts on a particular class I area.

[39] See appendix F1 in the docket, ''MANE–VU CALPUFF Modeling Report—Final.''

[40] See tables 4, 5, 6, 34 and 35 in appendix F1 in the docket.

[41] See appendix J9, ''BL England Operating Permit Termination Letter—Final.''

[42] See Table 3–2 ''82 Industrial Sources Evaluated for Impact at MANE–VU Class I Areas'' in the NJ Regional Haze SIP—Final March 2020.

[43] See appendix G1, ''Contribution Assessment 2006—Final.''

nitrate impacts from area and mobile sources. MANE–VU therefore developed a ratio of nitrate to sulfate impacts based on the previously described CALPUFF modeling and applied those to the sulfate Q/d results in order to derive nitrate contribution estimates. Several states did not have CALPUFF nitrate to sulfate ratio results, however, because there were no point sources modeled with CALPUFF.

In order to develop a final set of contribution estimates, MANE–VU weighted the results from both the Q/d and CALPUFF analyses. The MANE–VU mass-weighted sulfate and nitrate contribution results were reported for the MANE–VU Class I areas (the Q/d summary report included results for several non-MANE–VU areas as well). If a state's contribution to sulfate and nitrate concentrations at a particular Class I area was 2 percent or greater, MANE–VU regarded that state as contributing to visibility impairment in that area. According to MANE–VU's analyses, sources in New Jersey have been found to contribute to visibility impairment at its own Class I area, the Brigantine Wilderness, and at the Dolly Sods Wilderness in West Virginia and Shenandoah National Park in Virginia. However, because New Jersey's mass-weighted contribution to sulfate and nitrate concentrations exceeded the 2 percent threshold only at Brigantine Wilderness (New Jersey's contribution was 2.2%), the RPO and New Jersey determined that it did not contribute to visibility impairment at Dolly Sods, Shenandoah, or any other Class I area.

As explained above, the EPA concluded in the 1999 RHR that ''all [s]tates contain sources whose emissions are reasonably anticipated to contribute to regional haze in a Class I area,'' 64 FR at 35721, and this determination was not changed in the 2017 RHR. Critically, the statute and regulation both require that the cause-or-contribute assessment consider all emissions of visibility-impairing pollutants from a state, as opposed to emissions of a particular pollutant or emissions from a certain set of sources. Consistent with these requirements, the 2019 Guidance makes it clear that ''all types of anthropogenic sources are to be included in the determination'' of whether a state's emissions are reasonably anticipated to result in any visibility impairment. 2019 Guidance at 8.

First, as an aside, the screening analyses on which MANE–VU relied are useful for certain purposes. MANE–VU used information from its technical analysis to rank the largest contributing states to sulfate and nitrate impairment in five Class I areas within MANE–VU states and three additional, nearby Class I areas.[44] The rankings were used to determine upwind states that were deemed important to include in state-to-state consultation (based on an identified impact screening threshold). Additionally, large individual source impacts were used to target MANE–VU control analysis ''Asks'' [45] of states and sources both within and upwind of MANE–VU.[46] The EPA finds the nature of the analyses generally appropriate to support decisions on states with which to consult. However, we have cautioned that source selection methodologies that target the largest regional contributors to visibility impairment across multiple states may not be reasonable for a particular state if it results in few or no sources being selected for subsequent analysis. 2021 Clarifications Memo at 3.

With regard to the analysis and determinations regarding New Jersey's contribution to visibility impairment at out-of-state Class I areas, the MANE–VU technical work focuses on the magnitude of visibility impacts from certain New Jersey emissions on its Class I area and other nearby Class I areas. However, the analyses did not account for all emissions and all components of visibility impairment (*e.g.,* primary PM emissions, and impairment from fine PM, elemental carbon, and organic carbon). In addition, Q/d analyses with a relatively simplistic accounting for wind trajectories and CALPUFF applied to a very limited set of EGUs and major industrial sources of SO_2 and NO_X are not scientifically rigorous tools capable of evaluating contribution to visibility impairment from *all* emissions in a state. The EPA does agree that the contribution to visibility impairment from New Jersey's emissions at nearby out-of-state Class I areas is smaller than that from numerous other MANE–VU states.[47] And while New Jersey noted that the contributions from several states outside the MANE–VU region are significantly larger than its own, we again clarify that each state is obligated under the CAA and RHR to address regional haze visibility impairment resulting from emissions from within the state, irrespective of whether another state's contribution is greater. See 2021 Clarifications Memo at 3. Additionally, we note that the 2 percent or greater sulfate-plus-nitrate threshold used to determine whether New Jersey emissions contribute to visibility impairment at a particular Class I area may be higher than what EPA believes is an ''extremely low triggering threshold'' intended by the statute and regulations. In sum, based on the information provided, it is clear that emissions from New Jersey contribute to Brigantine Wilderness and have relatively small contributions to other out-of-state Class I areas. However, due to the low triggering threshold implied by the Rule and the lack of rigorous modeling analyses, we do not necessarily agree with New Jersey's conclusion that, based on a 2% contribution threshold, it does not contribute to visibility impairment at any Class I areas outside the state.

Regardless, we note that New Jersey did determine that sources and emissions within the state contribute to visibility impairment at both Brigantine and two out-of-state Class I areas. Furthermore, the state took part in the emission control strategy consultation process as a member of MANE–VU. As part of that process, MANE–VU developed a set of emissions reduction measures identified as being necessary to make reasonable progress in the five MANE–VU Class I areas. This strategy consists of six Asks for states within MANE–VU and five Asks for states outside the region that were found to impact visibility at Class I areas within MANE–VU.[48] New Jersey's submission discusses each of the Asks and explains why or why not each is applicable and how it has complied with the relevant components of the emissions control strategy MANE–VU has laid out for its states. New Jersey worked with MANE–VU to determine potential reasonable measures that could be implemented by 2028, considering the cost of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts, and the remaining useful life of any potentially affected sources. As discussed in further

[44] The Class I areas analyzed were Acadia National Park in Maine, Brigantine Wilderness in New Jersey, Great Gulf Wilderness in New Hampshire, Lye Brook Wilderness in Vermont, Moosehorn Wilderness in Maine, Shenandoah National Park in Virginia, James River Face Wilderness in Virginia, and Dolly Sods/Otter Creek Wildernesses in West Virginia.

[45] As explained more fully in Section IV.E.a, MANE–VU refers to each of the components of its overall strategy as an ''Ask ''of its member states.

[46] The MANE–VU consultation report (Appendix D) explains that ''[t]he objective of this technical work was to identify states and sources from which MANE–VU will pursue further analysis. This screening was intended to identify which states to invite to consultation, not a definitive list of which states are contributing.''

[47] Because MANE–VU did not include all New Jersey's emissions or contributions to visibility impairment in its analysis, we cannot definitely state that New Jersey's contribution to visibility impairment is not the most significant. However, that is very likely the case.

[48] See appendix B, ''Asks—Final.''

detail below, the EPA is proposing to find that New Jersey has submitted a regional haze plan that meets the requirements of 40 CFR 51.308(f)(2) related to the development of a long-term strategy. Thus, although we have concerns regarding some aspects of MANE–VU's technical analyses supporting states' contribution determinations, we propose to find that New Jersey has nevertheless satisfied the applicable requirements for making reasonable progress towards natural visibility conditions in Class I areas that may be affected by emissions from the state.

D. Calculations of Baseline, Current, and Natural Visibility Conditions; Progress to Date; and the Uniform Rate of Progress

Section 51.308(f)(1) requires states to determine the following for ''each mandatory Class I Federal area located within the State'': baseline visibility conditions for the most impaired and clearest days, natural visibility conditions for the most impaired and clearest days, progress to date for the most impaired and clearest days, the differences between current visibility conditions and natural visibility conditions, and the URP. This section also provides the option for states to propose adjustments to the URP line for a Class I area to account for visibility impacts from anthropogenic sources outside the United States and/or the impacts from wildland prescribed fires that were conducted for certain, specified objectives. 40 CFR 51.308(f)(1)(vi)(B).

Brigantine Wilderness Area has 2000–2004 baseline visibility conditions of 14.33 deciviews on the 20% clearest days and 27.43 deciviews on the 20% most impaired days. New Jersey calculated an estimated natural background visibility of 5.52 deciviews on the 20% clearest days and 10.69 deciviews on the 20% most impaired days for the Brigantine Wilderness Area.[49] The current visibility conditions, which are based on 2013–2017 monitoring data, were 11.48 deciviews on the clearest days and 19.86 deciviews on the most impaired days, which are 5.96 deciviews and 9.17 deciviews greater than natural conditions on the respective sets of days.[50] New Jersey calculated an annual URP of 0.28 deciviews needed to reach natural visibility on the 20% most impaired days.[51] New Jersey's URP in 2028 on 20% most impaired visibility days is 20.74 deciviews. New Jersey noted that its modeled ''2028 Base Case'' and ''2028 Control Case'' are both below the URP. New Jersey did not choose to adjust its URP for international anthropogenic impacts or to account for the impacts of wildland prescribed fires. EPA is proposing to find that New Jersey has submitted a regional haze plan that meets the requirements of 40 CFR 51.308(f)(1) related to the calculations of baseline, current, and natural visibility conditions; progress to date; and the uniform rate of progress for the second implementation period.

E. Long-Term Strategy for Regional Haze

a. New Jersey's Response to the Six MANE–VU Asks

Each state having a Class I area within its borders or emissions that may affect visibility in a Class I area must develop a long-term strategy for making reasonable progress towards the national visibility goal. CAA 169A(b)(2)(B). As explained in the Background section of this notice, reasonable progress is achieved when all states contributing to visibility impairment in a Class I area are implementing the measures determined—through application of the four statutory factors to sources of visibility impairing pollutants—to be necessary to make reasonable progress. 40 CFR 51.308(f)(2)(i). Each state's long-term strategy must include the enforceable emission limitations, compliance schedules, and other measures that are necessary to make reasonable progress. 40 CFR 51.308(f)(2). All new (*i.e.,* additional) measures that are the outcome of four-factor analyses are necessary to make reasonable progress and must be in the long-term strategy. If the outcome of a four-factor analysis is that no new measures are reasonable for a source, that source's existing measures are necessary to make reasonable progress, unless the state can demonstrate that the source will continue to implement those measures and will not increase its emission rate. Existing measures that are necessary to make reasonable progress must also be in the long-term strategy. In developing its long-term strategies, a state must also consider the five additional factors in § 51.308(f)(2)(iv). As part of its reasonable progress determinations, the state must describe the criteria used to determine which sources or group of sources were evaluated (*i.e.,* subjected to four-factor analysis) for the second implementation period and how the four factors were taken into consideration in selecting the emission reduction measures for inclusion in the long-term strategy. 40 CFR 51.308(f)(2)(iii).

The following section summarizes how New Jersey's SIP submission addressed the requirements of § 51.308(f)(2)(i); specifically, it describes MANE–VU's development of the six Asks and how New Jersey addressed each. The EPA's evaluation of New Jersey's SIP revision with regard to the same is contained in the following Section IV.E.b. New Jersey's SIP submission describes how it plans to meet the long-term strategy requirements defined by the state and MANE–VU and provides that ''[t]hese long-term strategies are referred to as the 'Asks'.'' [52]

States may rely on technical information developed by the RPOs of which they are members to select sources for four-factor analysis and to conduct that analysis, as well as to satisfy the documentation requirements under § 51.308(f). Where an RPO has performed source selection and/or four-factor analyses (or considered the five additional factors in § 51.308(f)(2)(iv)) for its member states, those states may rely on the RPO's analyses for the purpose of satisfying the requirements of § 51.308(f)(2)(i) so long as the states have a reasonable basis to do so and all state participants in the RPO process have approved the technical analyses. 40 CFR 51.308(f)(3)(iii). States may also satisfy the requirement of § 51.308(f)(2)(ii) to engage in interstate consultation with other states that have emissions that are reasonably anticipated to contribute to visibility impairment in a given Class I area under the auspices of intra- and inter-RPO engagement.

New Jersey is a member of the MANE–VU RPO and participated in the RPO's regional approach to developing a strategy for making reasonable progress towards the national visibility goal in the MANE–VU Class I areas. MANE–VU's strategy includes a combination of: (1) Measures for certain source sectors and groups of sectors that the RPO determined were reasonable for states to pursue, and (2) a request for member states to conduct four-factor analyses for individual sources that it

[49] See ''Table 2–1: Comparison of Natural, Baseline, and Current Visibility Conditions in Deciviews for the 20 percent Clearest and 20 percent Most Impaired at Brigantine Wilderness Area'' in the NJ Regional Haze SIP—Final March 2020.

[50] See ''Table 2–2: Current (2017) vs Natural Visibility Conditions at Brigantine Wilderness Area'' in the NJ Regional Haze SIP—Final March 2020.

[51] See ''Table 2–3: Uniform Rate of Progress for Brigantine Wilderness Area'' in the NJ Regional Haze SIP—Final March 2020.

[52] NJ Regional Haze SIP submission at 26.

identified as contributing to visibility impairment. MANE–VU refers to each of the components of its overall strategy as an Ask of its member states. On August 25, 2017, the Executive Director of MANE–VU, on behalf of the MANE–VU states and tribal nations, signed a statement that identifies six emission reduction measures that comprise the Asks for the second implementation period.[53] The Asks were ''designed to identify reasonable emission reduction strategies that must be addressed by the states and tribal nations of MANE–VU through their regional haze SIP updates.'' [54] The statement explains that ''[i]f any State cannot agree with or complete a Class I State's Asks, the State must describe the actions taken to resolve the disagreement in the Regional Haze SIP.'' [55]

MANE–VU's recommendations as to the appropriate control measures were based on technical analyses documented in the RPO's reports and included as appendices to or referenced in New Jersey's regional haze SIP submission. One of the initial steps of MANE–VU's technical analysis was to determine which visibility-impairing pollutants should be the focus of its efforts for the second implementation period. In the first implementation period, MANE–VU determined that sulfates were the most significant visibility impairing pollutant at the region's Class I areas. To determine the impact of certain pollutants on visibility at Class I areas for the purpose of second implementation period planning, MANE–VU conducted an analysis comparing the pollutant contribution on the clearest and most impaired days in the baseline period (2000–2004) to the most recent period (2012–2016) [56] at MANE–VU and nearby Class I areas. MANE–VU found that while SO_2 emissions were decreasing and visibility was improving, sulfates still made up the most significant contribution to visibility impairment at MANE–VU and nearby Class I areas. According to the analysis, NO_X emissions have begun to play a more significant role in visibility impacts in recent years, especially at the Brigantine Wilderness Area. The technical analyses used by New Jersey are included in their submission and are as follows:

- Contributions to Regional Haze in the Northeast and Mid-Atlantic United States (referred to as the Contribution Assessment). August 2006. (Appendix G);
- Assessment of Reasonable Progress for Regional Haze in MANE–VU Class I areas) (referred to as the Reasonable Progress Report) MACTEC 2007. (Appendix H);
- Five-Factor Analysis of BART-Eligible Sources: Survey of Options for Conducting BART Determinations. June 2007 (Appendix J);
- Assessment of Control Technology Options for BART-Eligible Sources: Steam Electric Boilers, Industrial Boilers, Cement Plants and Paper and Pulp Facilities. March 2005. (Appendix J);
- Beyond Sulfate: Maintaining Progress towards Visibility and Health Goals. December 2012. (Appendix J);
- 2016 Updates to the Assessment of Reasonable Progress for Regional Haze in MANE–VU Class I Areas (Appendix H);
- Impact of Wintertime SCR/SNCR Optimization on Visibility Impairing Nitrate Precursor Emissions. November 2017. (Appendix J);
- High Electric Demand Days and Visibility Impairment in MANE–VU. December 2017. (Appendix J);
- Benefits of Combined Heat and Power Systems for Reducing Pollutant Emissions in MANE–VU States. March 2016. (Appendix J);
- 2016 MANE–VU Source Contribution Modeling Report—CALPUFF Modeling of Large Electrical Generating Units and Industrial Sources April 4, 2017 (Appendix F);
- Contribution Assessment Preliminary Inventory Analysis. October 10, 2016. (Appendix G);
- EGU Data for Four-Factor Analyses Only CALPUFF Units. (Appendix H);
- Four-Factor Data Collection Memo. March 2017. (Appendix H);
- Status of the Top 167 Stacks from the 2008 MANE–VU Ask. July 2016. (Appendix H).

To support development of the Asks, MANE–VU gathered information on each of the four statutory factors for six source sectors it determined, based on an examination of annual emission inventories, ''had emissions that were reasonabl[y] anticipated to contribute to visibility degradation in MANE–VU:'' electric generating units (EGUs), industrial/commercial/institutional boilers (ICI boilers), cement kilns, heating oil, residential wood combustion, and outdoor wood combustion.[57] MANE–VU also collected data on individual sources within the EGU, ICI boiler, and cement kiln sectors.[58] Information for the six sectors included explanations of technically feasible control options for SO_2 or NO_X, illustrative cost-effectiveness estimates for a range of model units and control options, sector-wide cost considerations, potential time frames for compliance with control options, potential energy and non-air-quality environmental impacts of certain control options, and how the remaining useful lives of sources might be considered in a control analysis.[59] Source-specific data included SO_2 emissions [60] and existing controls [61] for certain existing EGUs, ICI boilers, and cement kilns. MANE–VU considered this information on the four factors as well as the analyses developed by the RPO's Technical Support Committee when it determined specific emission reduction measures that were found to be reasonable for certain sources within two of the sectors it had examined—EGUs and ICI boilers. The Asks were based on this analysis and looked to either optimize the use of existing controls, have states conduct further analysis on EGU or ICI boilers with considerable visibility impacts, implement low sulfur fuel standards, or lock-in lower emission rates.

MANE–VU Ask 1 is ''ensuring the most effective use of control technologies on a year-round basis'' at EGUs with a nameplate capacity larger than or equal to 25 megawatts (MW) with already installed NO_X and/or SO_2 controls.[62] In its submission, New Jersey explained that the control limits required by its Reasonably Available Control Technology rules, SIP-approved N.J.A.C 7:27–19, Control and Prohibition of Air Pollution by Oxides of Nitrogen, include year-round emission limits. Additionally, New Jersey's operating permits require that units run their controls on a year-round basis whenever the units are in operation to ensure the most effective use of control technologies. New Jersey therefore concluded it is meeting Ask 1.

MANE–VU Ask 2 consists of a request that states ''perform a four-factor analysis for reasonable installation or upgrade to emissions controls'' for specified sources. MANE–VU developed

[53] See appendix D ''MANE–VU Regional Haze Consultation Report and Consultation Documentation—Final.''

[54] *Id.*

[55] *Id.*

[56] The period of 2012–2016 was the most recent period for which data was available at the time of analysis.

[57] See appendix H ''MANE–VU Four Factor Data Collection Memo at 1, March 30, 2017.''

[58] See appendix H ''2016 Updates to the Assessment of Reasonable Progress for Regional Haze in MANE–VU Class I Areas, Jan. 31, 2016.''

[59] *Id.*

[60] See appendix H ''Four Factor Data Collection Memo.''

[61] See appendix H ''Status of the Top 167 Stacks from the 2008 MANE–VU Ask. July 2016.''

[62] See appendix D ''MANE–VU Regional Haze Consultation Report and Consultation Documentation—Final.''

its Ask 2 list of sources for analysis by performing modeling and identifying facilities with the potential for 3.0 inverse megameters (Mm^{-1}) or greater impacts on visibility at any Class I area in the MANE–VU region. The BL England facility located in Upper Township, Cape May County, New Jersey was identified by MANE–VU [63] as having units—units 2 and 3—with the potential for 3.0 Mm^{-1} or greater visibility impact at any MANE–VU Class I area. The BL England facility permanently shut down in May 2019. The NJDEP Southern Air Compliance and Enforcement office conducted a site investigation at BL England on September 20, 2019, and observed that units 1, 2, and 3 are decommissioned and rendered inoperable. On December 3, 2019, the DEP terminated [64] the air operating permit at BL England Generating Station. New Jersey therefore concluded that it satisfies Ask 2.

Ask 3 is for each MANE–VU state to pursue an ultra low-sulfur fuel oil standard if it has not already done so in the first implementation period. The Ask includes percent by weight standards for #2 distillate oil (0.0015% sulfur by weight or 15 ppm), #4 residual oil (0.25–0.5% sulfur by weight), and #6 residual oil (0.3–0.5% sulfur by weight). On October 25, 2010, New Jersey adopted a rule [65] to modify the sulfur-in-fuel limits in accordance with the MANE–VU Ask. This rule lowered the sulfur content of all distillate fuel oils (#2 fuel oil and lighter) to 15 ppm beginning on July 1, 2016. The sulfur content of #4 fuel oil was lowered to 2,500 ppm and for #6 fuel oil to a range of 3,000 to 5,000 ppm sulfur content beginning July 1, 2014.[66] New Jersey therefore concluded that it is meeting Ask 3.

MANE–VU Ask 4 requests states to update permits to ''lock in'' lower emissions rates for NO_X, SO_2, and PM at emissions sources larger than 250 million British Thermal Units (MMBtu) per hour heat input that have switched to lower emitting fuels. New Jersey's SIP submissions explains that EGUs and other large point emission sources that have switched operations to lower emitting fuels are already locked into the lower emission rates for NO_X, SO_2, and PM by permits, enforceable agreements, and/or rules. These units are required to amend their permits through the New Source Review (NSR) process if they plan to switch back to coal or another fuel that will increase emissions. A change in fuel, unless already allowed in the permit, would be a modification.[67] N.J.A.C. 7:27–22 requires that an application to modify the permit be submitted prior to the change in fuel; New Jersey's preconstruction and operating permit programs are consolidated such that one permit application serves both purposes. New Jersey therefore concluded it is meeting Ask 4.

Ask 5 requests that MANE–VU states ''control NO_X emissions for peaking combustion turbines that have the potential to operate on high electric demand days'' by either: (1) Meeting NO_X emissions standards specified in the Ask for turbines that run on natural gas and fuel oil, (2) performing a four-factor analysis for reasonable installation of or upgrade to emission controls, or (3) obtaining equivalent emission reductions on high electric demand days.[68] The Ask requests states to strive for NO_X emission standards of no greater than 25 ppm for natural gas and 42 ppm for fuel oil, or at a minimum, NO_X emissions standards of no greater than 42 ppm for natural gas and 96 ppm at for fuel oil. New Jersey adopted regulations on March 20, 2009,[69] to control peaking combustion turbines that have the potential to operate on high electric demand days,[70] and the regulations were approved into the SIP (75 FR 45483, August 3, 2010). New Jersey's SIP-approved control levels require 0.75 pounds of NO_X per MWh (25 ppmvd) for natural gas, and 1.20 pounds of NO_X per MWh (42 ppmvd) for oil, for a combined cycle combustion turbine or a regenerative cycle combustion turbine, and 1.00 pounds of NO_X per MWh (25 ppmvd) for natural gas, and 1.60 pounds of NO_X per MWh (42 ppmvd) for oil, for a simple cycle turbine combustion turbine.[71] [72] New Jersey therefore concluded it is meeting Ask 5.

The last Ask for states within MANE–VU (Ask 6) requests states to report in their regional haze SIPs about programs that decrease energy demand and increase the use of combined heat and power (CHP) and other distributed generation technologies such as fuel cells, wind and solar. New Jersey explains that on July 6, 2007, Governor Corzine signed the Global Warming Response Act.[73] The Act requires New Jersey to reduce greenhouse gas emissions by 20 percent by 2020, and by 80 percent by 2050. Measures to meet these requirements will also help reduce SO_2, PM, and NO_X emissions and improve visibility. On January 29, 2018, Governor Phil Murphy signed an Executive Order [74] directing New Jersey's return to full participation in the Regional Greenhouse Gas Initiative (RGGI). Specifically, the Executive Order directs DEP to initiate rulemaking by February 28, 2018. In addition, Governor Murphy sent a letter, dated February 16, 2018, to the RGGI states notifying them of New Jersey's intent to rejoin RGGI ''as a partner in reducing greenhouse gas emissions, improving the health of residents, and growing the economy in our region.'' New Jersey formally rejoined RGGI on June 17, 2019.[75] [76] RGGI is part of Governor Murphy's goal to achieve 100 percent clean energy by 2050. New Jersey's participation in RGGI will shift the state's power sector towards clean and renewable energy sources such as wind, solar, and fuel cells, and will help reduce emissions and improve visibility. New Jersey therefore concluded it is meeting Ask 6.

b. The EPA's Evaluation of New Jersey's Response to the Six MANE–VU Asks and Compliance With § 51.308(f)(2)(i)

The EPA is proposing to find that New Jersey has satisfied the

[63] See Table 4–1 in Chapter 4 of the NJ Regional Haze SIP.

[64] See Appendix J9 ''BL England Operating Permit Termination Letter—Final.''

[65] SIP-approved N.J.A.C. 7:27–9 ''Sulfur in Fuels''.

[66] The maximum sulfur content of #6 fuel oil varies depending on the county where the fuel oil is burned. The northern part of New Jersey has a lower maximum sulfur content for residual fuel oil at 3,000 ppm. While the southern part of New Jersey has a maximum sulfur content of 5,000 ppm. See N.J.A.C. 7:27–9 *et seq. https://www.nj.gov/dep/aqm/rules27.html.*

[67] See N.J.A.C 7:27–22.1, defining ''Modify'' or ''modification'' to ''mean[ ] any physical change in, or change in the method of operation of, existing equipment or control apparatus that increases the amount of actual emissions of any air contaminant emitted by that equipment or control apparatus or that results in the emission of any air contaminant not previously emitted. This term shall not include normal repair and maintenance. A modification may be incorporated into an operating permit through a significant modification, a minor modification, or a seven-day-notice change.''

[68] See appendix D ''MANE–VU Regional Haze Consultation Report and Consultation Documentation—Final.''

[69] See N.J.A.C. 7:27–19: Control and Prohibition of Air Pollution from Oxides of Nitrogen *https://www.state.nj.us/dep/aqm/currentrules/Sub19.pdf.*

[70] High electric demand days are days when higher than usual electrical demands bring additional generation units online, many of which are infrequently operated and may have significantly higher emissions rates of the generation fleet.

[71] See paragraph (g) in N.J.A.C. 7:27–19.5: Stationary combustion turbines *https://www.state.nj.us/dep/aqm/currentrules/Sub19.pdf.*

[72] See docket documents ''Existing Combined Cycle Turbines'' and ''Existing Simple Cycle Turbines.'' For further information.

[73] See N.J.S.A 26:2C–37.

[74] See *https://nj.gov/infobank/eo/056murphy/pdf/EO-7.pdf.*

[75] See *https://www.state.nj.us/dep/aqes/docs/letter-to-rggi-governors20180222.pdf.*

[76] See *https://www.state.nj.us/dep/aqes/docs/co2-budget-adoption.pdf.*

requirements of § 51.308(f)(2)(i) related to evaluating sources and determining the emission reduction measures that are necessary to make reasonable progress by considering the four statutory factors. We are proposing to find that New Jersey has satisfied the four-factor analysis requirement through its analysis and actions to address MANE–VU Asks 2 and 3. We also propose to find that New Jersey reasonably concluded that it satisfied all six Asks.

As explained above, New Jersey relied on MANE–VU's technical analyses and framework (*i.e.,* the Asks) to select sources and form the basis of its long-term strategy. MANE–VU conducted an inventory analysis to identify the source sectors that produced the greatest amount of SO_2 and NO_X emissions in 2011; inventory data were also projected to 2018. Based on this analysis, MANE–VU identified the top-emitting sectors for each of the two pollutants, which for SO_2 include coal-fired EGUs, industrial boilers, oil-fired EGUs, and oil-fired area sources including residential, commercial, and industrial sources. Major-emitting sources of NO_X include on-road vehicles, non-road vehicles, and EGUs.[77] The RPO's documentation explains that ''[EGUs] emitting SO_2 and NO_X and industrial point sources emitting SO_2 were found to be sectors with high emissions that warranted further scrutiny. Mobile sources were not considered in this analysis because any ask concerning mobile sources would be made to EPA and not during the intra-RPO and inter-RPO consultation process among the states and tribes.'' [78] EPA proposes to find that New Jersey reasonably evaluated the two pollutants—SO_2 and NO_X—that currently drive visibility impairment within the MANE–VU region and that it adequately explained and supported its decision to focus on these two pollutants through its reliance on the MANE–VU technical analyses cited in its submission.

Section 51.308(f)(2)(i) requires states to evaluate and determine the emission reduction measures that are necessary to make reasonable progress by applying the four statutory factors to sources in a control analysis. As explained previously, the MANE–VU Asks are a mix of measures for sectors and groups of sources identified as reasonable for states to address in their regional haze plans. While MANE–VU formulated the Asks to be ''reasonable emission reduction strategies'' to control emissions of visibility impairing pollutants,[79] EPA believes that two of the Asks, in particular, engage with the requirement that states determine the emission reduction measures that are necessary to make reasonable progress through consideration of the four factors. As laid out in further detail below, the EPA is proposing to find that MANE–VU's four-factor analysis conducted to support the emission reduction measures in Ask 3 (ultra-low sulfur fuel oil Ask), in conjunction with New Jersey's supplemental analysis and explanation of how it has complied with Ask 2 (perform four-factor analyses for sources with potential for ≥3.0 Mm^{-1} impacts) satisfy the requirement of § 51.308(f)(2)(i). The emission reduction measures that are necessary to make reasonable progress must be included in the long-term strategy, *i.e.,* in New Jersey's SIP. 40 CFR 51.308(f)(2).

We acknowledge that MANE–VU and New Jersey provided information on the four statutory factors for several source categories, including EGUs, ICI boilers, cement and lime kilns, heating oil, and residential wood combustion. See April 2021 Supplemental Information at 2; 2020 New Jersey SIP Submission Appendix H–2. However, other than for Asks 2 (requesting four-factor analyses be conducted) and 3 (requesting adoption of low-sulfur fuel oil), it is not apparent from the documentation provided with New Jersey's SIP submission how the measures included in each of the Asks are the result of consideration of that information. See 40 CFR 51.308(f)(2)(i) (SIPs must include a description of ''how the four factors were taken into consideration in selecting the measures for inclusion in [the state's] long-term strategy'').

As for Ask 1, New Jersey asserted that it satisfies Ask 1 because its SIP-approved regulations applicable to EGU boilers include year-round emission limits and because it already requires that controls be run year-round for both NO_X [80] and SO_2 by setting emission limits in permits that reflect the emission levels when the controls are run. New Jersey's SIP-approved (83 FR 50506, October 9, 2018) NO_X reasonably available control technology (RACT) limits for boilers serving EGUs applies to any boiler serving an electric generating unit and requires year-round controls. The New Jersey RACT rule includes maximum allowable NO_X emission limits of 1.50 pounds per megawatt hour for coal boilers, 2.00 pounds per megawatt hour for fuel oils heavier than No. 2 fuel oil and 1.00 pounds per megawatt hour for No. 2 and lighter fuel oil and gas only fired boilers.[81] New Jersey's SIP-approved sulfur limits include year-round limits (75 FR 45483, August 3, 2010), (77 FR 19, January 3, 2012). Under these rules, any source that combusts solid fuel shall emit SO_2 at a 24-hour emission rate no greater than 0.250 pounds per 1,000,000 BTU gross heat input for every calendar day, and at a 30-calendar-day rolling average emission rate no greater than 0.150 pounds per 1,000,000 BTU gross heat input.[82] New Jersey set a range of 24-hour emission limits for sources combusting fuel oils based on location within the state and type of fuel oil. The emission limits ranged from 0.00160 pounds per million BTU for No. 2 and lighter fuel oil, regardless of location within the state to 0.530 pounds per million BTU for No. 5, No. 6, and heavier fuel oils in certain part of the state.[83] New Jersey's SIP-approved SO_2 and NO_X RACT requirements in N.J.A.C. 7:27–9, 7:27–10, and 7:27–19, which include Subchapter 19.4 ''Boilers serving electric generating units'' and Subchapter 19.5 ''Stationary combustion turbines,'' limit SO_2 and NO_X emissions from EGUs consistent with the year-round operation of control technologies. EPA thus proposes to find that New Jersey reasonably concluded that has satisfied Ask 1.

Ask 2 addresses the sources MANE–VU determined have the potential for larger than, or equal to, 3.0 Mm^{-1} visibility impact at any MANE–VU Class I area; the Ask requests MANE–VU states to conduct four-factor analyses for the specified sources within their borders. This Ask explicitly engages with the statutory and regulatory requirement to determine reasonable progress based on the four factors; MANE–VU considered it ''reasonable to have the greatest contributors to visibility impairment conduct a four-factor analysis that would determine whether emission control measures should be pursued and what would be reasonable for each source.'' [84]

As an initial matter, EPA does not necessarily agree that 3.0 Mm^{-1} visibility impact is a reasonable threshold for source selection. The RHR recognizes that, due to the nature of regional haze visibility impairment,

[77] See appendix G ''Contribution Assessment—Final.''

[78] See Appendix B ''Asks—Final.''

[79] *Id.*

[80] See N.J.A.C. 7:27–19 ''Control and Prohibition of Air Pollution by Oxides of Nitrogen.''

[81] See N.J.A.C. 7:27–19.4 ''Boilers serving electric generating units.''

[82] See N.J.A.C. 7:27–10 ''Sulfur in Solid Fuels.''

[83] See N.J.A.C. 7:27–9 ''Sulfur in Fuels''.

[84] See Appendix D ''MANE–VU Regional Haze Consultation Report and Consultation Documentation—Final.''

numerous and sometimes relatively small sources may need to be selected and evaluated for control measures in order to make reasonable progress. See 2021 Clarifications Memo at 4. As explained in the 2021 Clarifications Memo, while states have discretion to choose any source selection threshold that is reasonable, ''[a] state that relies on a visibility (or proxy for visibility impact) threshold to select sources for four-factor analysis should set the threshold at a level that captures a meaningful portion of the state's total contribution to visibility impairment to Class I areas.'' 2021 Memo at 3. In this case, the 3.0 Mm^{-1} threshold identified only one source in New Jersey (and only 22 across the entire MANE–VU region), indicating that it may be unreasonably high. However, while New Jersey did not select additional sources that fell under MANE–VU's 3.0 Mm^{-1} threshold for four-factor analysis, it did provide supplemental information and explanation supporting its decision not to do so.

MANE–VU identified two units at the BL England facility, a coal- and oil-fired power plant, as having a 5.6 Mm^{-1} visibility impact and thus meeting its threshold for four-factor analysis. New Jersey's SIP submission indicates it had intended to perform a four-factor analysis on BL England, however, the plant permanently shut down and all permits were terminated prior to the state initiating that analysis.[85] The state then looked at other sources with visibility impacts less than 3.0 $Mm;^{-1}$ New Jersey explained that emissions from the units it examined are well-controlled and most of the units were found to have much lower visibility impacts). The state's supplemental information [86] indicates that next highest-impacting EGU in New Jersey, Hudson Generating Station, ranked 74th in MANE–VU's top impacting EGU stacks list and had a maximum extinction impact of 0.91 Mm^{-1} based on 2015 emissions. The next highest impacting stacks were at Mercer Generating Station, units 1 and 2, which ranked 223rd and 224th on the EGU list and had a maximum extinction impact of approximately 0 Mm^{-1} based on 2015 emissions. The Hudson and Mercer Generating Stations shut down permanently on June 1, 2017. At the time of SIP submission, the largest remaining sources in the state of New Jersey were three coal boilers operating at two cogeneration power plants, Logan Generating Plant and Carneys Point. The two boilers at Carneys Point were equipped with Selective Catalytic Reduction (SCR) controls, while the boiler at Logan had both SCR and low-NO_X burners with overfire air. The units were subject to the SIP-approved NO_X RACT requirements, requiring year-round NO_X control, and the SIP-approved SO_2 emission limits. In the most recent five-year period for which EPA Air Markets Program Data (AMPD) are available (2016–2020), the two boilers at Carneys Point averaged approximately 300 tons NO_X emissions and an emission rate of 0.12 lb/MMBtu. The boiler at Logan Generating Station averaged approximately 403 tons NO_X and an emission rate of 0.11 lb/MMBtu. New Jersey also examined the two facilities with ICI boilers that MANE–VU flagged as contributing to visibility impairment at the Brigantine Wilderness: Atlantic County Utilities Landfill (ACUA) and Gerresheimer Moulded Glass (now Corning Pharmaceutical Glass). At the time of the analysis, and due to their close proximity to the Class I area, these boilers contributed 1.67 Mm^{-1} and 1.0 Mm^{-1} light extinction, respectively.[87] However, this was based on the sources' 2011 emission rates. Currently, there are no permitted ICI boilers at these facilities. ACUA's 19 tpy SO_2 in 2019 are considerably lower than the 2011 emissions of 907.88 tpy of SO_2. Corning Pharmaceutical Glass's emissions have likewise changed significantly since 2011, from 102.9 tpy of SO_2 to 1.29 tpy SO_2 in 2019. This was due to an error in the 2011 emissions that were reported in the SIP. The 2019 emissions represent the actual state of the facility.[88]

New Jersey reviewed its remaining sources on MANE–VU's top impacting EGU stacks list and its remaining sources on MANE–VU's top impacting ICI facilities list.[89] New Jersey also addressed the six facilities flagged by the NPS in their comment letter, which the NPS identified based on the 2014 National Emissions Inventory (NEI) emissions and a Q/d analysis. New Jersey listed the controls at each of these facilities. The NPS list included Carneys Point and Logan Generating Stations, the controls and emissions for which were discussed previously. The list also included Paulsboro and Phillips Bayway Refineries and Covanta Essex Company and Union County Resources solid waste combustors and incinerators. For Paulsboro, emissions controls include a scrubber, adsorber, particulate filter, thermal oxidizer and other controls. The SO_2 emissions at Paulsboro were 56.45 tpy in 2014 and 23.85 tpy in 2017.[90] The ICI boilers at Paulsboro are subject to New Jersey's SIP-approved NO_X RACT limits of 0.10 pound per million BTU for natural gas fired ICI boilers.[91] For Phillips Bayway Refinery, the list of controls included scrubbers, SCR, fabric filters, adsorbers, particulate filters, cyclones, separators, and other controls. The SO_2 emissions from Phillips were 81.98 tpy in 2014 and 41.12 tpy in 2017.[92] Phillips, like Paulsboro, is subject to New Jersey RACT limits for NO_X. Covanta Essex has a scrubber, electrostatic precipitator, particulate filter, selective non-catalytic reduction (SNCR) and other controls. The SO_2 emissions at Covanta were 110.73 tpy in 2014 and 58.68 tpy in 2017.[93] Union County has a scrubber, SNCR, particulate filter and other controls. The SO_2 emissions were 35.73 tpy in 2014 and 23.31 tpy in 2017.[94] All municipal solid waste incinerators in New Jersey, including Covanta and Union County, are subject to the SIP-approved NO_X RACT limits of 150 ppmvd.[95]

New Jersey also explained that it implements a range of regulations, consent decrees, administrative consent orders, and federal regulations to control NO_X emissions, including SIP-approved short-term performance standards for NO_X emissions from EGUs and measures to address EGU emissions on high electric demand days; presumptive NO_X limits for source categories including EGU boilers, stationary combustion turbines, ICI boilers, stationary reciprocating engines; and certain types of manufacturing facilities and incinerators; and RACT rules for stationary reciprocating

[85] See appendix J9 ''BL England Operating Permit Termination Letter—Final.''

[86] See April 2021 Supplemental Information for New Jersey's March 2020 Regional Haze SIP. In this document, New Jersey explained that it was focusing on NO_X emissions because its SO_2 emissions have been significantly reduced. Id. at 1.

[87] See table 3 of the docket document ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP.''

[88] See docket document ''Response to EPA Question July 15 2022''.

[89] See Table 2 ''Top Impacting EGU Stacks (2015 Emissions) to MANE–VU Class I Areas'' in the Supplemental Information for New Jersey's March 2020 Regional Haze SIP.

[90] See EPA's Nation Emission Inventory at *https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei.*

[91] See N.J.A.C. 7:27–19.7 ''Industrial/commercial/institutional boilers and other indirect heat exchangers''.

[92] See EPA's Nation Emission Inventory at *https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei.*

[93] *Id.*

[94] *Id.*

[95] See N.J.A.C. 7:27–19.12 ''Municipal solid waste (MSW) incinerators''.

internal combustion engines and stationary gas turbines.[96]

The EPA proposes to find that New Jersey reasonably determined it has satisfied Ask 2. As explained above, we do not necessarily agree that a 3.0 Mm^{-1} threshold for selecting sources for four-factor analysis results in a set of sources the evaluation of which has the potential to meaningfully reduce the state's contribution to visibility impairment. MANE–VU's threshold identified only one source in New Jersey for four-factor analysis. However, in this particular instance we propose to find that New Jersey's additional information and explanation indicates that the state has in fact examined a reasonable set of sources, including sources flagged by FLMs, and reasonably concluded that four-factor analyses for its top-impacting sources are not necessary because the outcome would be that no further emission reductions would be reasonable. EPA is basing this proposed finding on the state's examination of its largest operating EGU and ICI sources, at the time of SIP submission, and on the emissions from and controls that apply to those sources, as well as on New Jersey's existing SIP-approved NO_X and SO_2 rules that effectively control emissions from the largest contributing stationary-source sectors.[97]

Ask 3, which addresses the sulfur content of heating oil used in MANE–VU states, is based on a four-factor analysis for the heating oil sulfur reduction regulations contained in that Ask;[98] specifically, for the control strategy of reducing the sulfur content of distillate oil to 15 ppm. The analysis started with an assessment of the costs of retrofitting refineries to produce 15 ppm heating oil in sufficient quantities to support implementation of the standard, as well as the impacts of requiring a reduction in sulfur content on consumer prices. The analysis noted that, as a result of previous EPA rulemakings to reduce the sulfur content of on-road and non-road-fuels to 15 ppm, technologies are currently available to achieve sulfur reductions and many refiners are already meeting this standard, meaning that the capital investments for further reductions in the sulfur content of heating oil are expected to be relatively low compared to costs incurred in the past. The analysis also examined, by way of example, the impacts of New York's existing 15 ppm sulfur requirements on heating oil prices and concluded that the cost associated with reducing sulfur was relatively small in terms of the absolute price of heating oil compared to the magnitude of volatility in crude oil prices. It also noted that the slight price premium is compensated by cost savings due to the benefits of lower-sulfur fuels in terms of equipment life and maintenance and fuel stability. Consideration of the time necessary for compliance with a 15 ppm sulfur standard was accomplished through a discussion of the amount of time refiners had needed to comply with the EPA's on-road and non-road fuel 15 ppm requirement, and the implications existing refinery capacity and distribution infrastructure may have for compliance times with a 15 ppm heating oil standard. The analysis concluded that with phased-in timing for states that have not yet adopted a 15 ppm heating oil standard there ''appears to be sufficient time to allow refiners to add any additional heating oil capacity that may be required.'' [99] The analysis further noted the beneficial energy and non-air quality environmental impacts of a 15 ppm sulfur heating oil requirement and that reducing sulfur content may also have a salutary impact on the remaining useful life of residential furnaces and boilers.[100]

The EPA proposes to find that New Jersey reasonably relied on MANE–VU's four-factor analysis for a low-sulfur fuel oil regulation, which engaged with each of the statutory factors and explained how the information supported a conclusion that a 15 ppm-sulfur fuel oil standard for fuel oils is reasonable. New Jersey's SIP-approved ultra-low sulfur fuel oil rule [101] is consistent with Ask 3's sulfur content standards for the three types of fuel oils (distillate oil, #4 residual oil, #6 residual oil). EPA therefore proposes to find that New Jersey reasonably determined that it has satisfied Ask 3.

New Jersey concluded that no additional updates were needed to meet Ask 4, which requests that MANE–VU states pursue updating permits, enforceable agreements, and/or rules to lock-in lower emission rates for sources larger than 250 MMBtu per hour that have switched to lower emitting fuels. As explained above, New Jersey has asserted that EGUs and other large point emission sources that have switched operations to lower emitting fuels are already locked into the lower emission rates for NO_X, SO_2, and PM by permits, enforceable agreements and/or rules. New Jersey's SIP-approved NO_X RACT rule limits the capability of a subject facility to switch to higher emitting fuels.[102] Furthermore, New Jersey's SIP-approved sulfur regulations make it so that any source that combusts solid fuel and that is constructed, installed, reconstructed or modified, is also subject to New Jersey's state-of-the-art requirements,[103] lowest achievable emission rate requirements,[104] and best available control technology requirements at 40 CFR 52.21. In addition, modified units in New Jersey are required to amend their permits through the New Source Review (NSR) process if they plan to switch back to coal or a fuel that will increase emissions. A change in fuel, unless already allowed in the permit, would be a modification.[105] New Jersey's operating permits regulations require that an application to modify the permit be submitted prior to the change in fuel.[106] Thus, given the permitting and regulatory requirements outlined above, including the fact that sources that have switched fuel are required to revise their permits to reflect the change, that state rules make any proposed reversion difficult by requiring permitting and other control analyses, including NSR, the EPA proposes to find that New Jersey reasonably determined it has satisfied Ask 4.

Ask 5 addresses NO_X emissions from peaking combustion turbines that have the potential to operate on high electric demand days. New Jersey explains that it has SIP-approved regulations [107] to

[96] See April 2021 Supplemental Information for New Jersey's March 2020 Regional Haze SIP at 4–5.

[97] See April 2021 Supplemental Information for New Jersey's March 2020 Regional Haze SIP at 4–7.

[98] See appendix H2 ''FINAL Updates to Assessment of Reasonable Progress for Regional Haze—Final'' at 8–4.

[99] *Id.* see 8–7.

[100] *Id.* see 8–8.

[101] N.J.A.C. 7:27–9: Sulfur in Fuels (42 N.J.R. 2244) was approved into New Jersey's SIP by the EPA on January 3, 2012. (77 FR 19, January 3, 2012).

[102] See N.J.A.C 7:27–19.20 ''Fuel switching''.

[103] See N.J.A.C. 7:27–8.12 ''State of the art'' and N.J.A.C 7:27–22.35 ''Advances in the art of air pollution control''.

[104] See N.J.A.C. 7:27–18 ''Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality (Emission Offset Rules)''.

[105] See N.J.A.C 7:27–22.1, defining ''Modify'' or ''modification'' as ''means any physical change in, or change in the method of operation of, existing equipment or control apparatus that increases the amount of actual emissions of any air contaminant emitted by that equipment or control apparatus or that results in the emission of any air contaminant not previously emitted. This term shall not include normal repair and maintenance. A modification may be incorporated into an operating permit through a significant modification, a minor modification, or a seven-day-notice change''.

[106] See N.J.A.C. 7:27–22 ''Operating Permits''.

[107] See N.J.A.C. 7:27–19: Control and Prohibition of Air Pollution from Oxides of Nitrogen *https://www.state.nj.us/dep/aqm/currentrules/Sub19.pdf.*

control peaking combustion turbines [108] that have the potential to operate on high electric demand days.[109] The Ask requests states to strive for NO_X emission standards of no greater than 25 ppm for natural gas and 42 ppm for fuel oil, or at a minimum, NO_X emissions standards of no greater than 42 ppm for natural gas and 96 ppm at for fuel oil. The control levels adopted by New Jersey are below those requested by this Ask. Because no peaking combustion turbine within the state is permitted to emit more than 25 ppm for natural gas and 42 ppm for fuel oil,[110] EPA proposes to find that New Jersey reasonably concluded that its existing regulations comply with Ask 5.

Finally, with regard to Ask 6, New Jersey explains the greenhouse gas initiatives and clean energy requirements within the state including promulgation of the ''Global Warming Response Act'' codified at N.J.S.A 26:2C–37 and issuance of Executive Orders directing rulemaking, and re-joining RGGI.''. The EPA is proposing to find that New Jersey has satisfied Ask 6's request to consider and report in its SIP measures or programs related to energy efficiency, cogeneration, and other clean distributed generation technologies.

In sum, the EPA is proposing to find that—based on New Jersey's participation in the MANE–VU planning process, how it has addressed each of the Asks, its supplemental information and explanation regarding NO_X sources and emissions, and the EPA's additional assessment of New Jersey's emissions and point sources—New Jersey has complied with the requirements of § 51.308(f)(2)(i). Specifically, MANE–VU Asks 2 and 3 engage with the requirement that states evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering the four statutory factors. While New Jersey did not select any sources for source-specific four-factor analyses pursuant to Ask 2, EPA is proposing to find the state's approach reasonable because it demonstrated that the sources with the greatest modeled impacts on visibility, as well as other sources that might be expected to impact visibility, either have shut down, have reduced their emissions so significantly that it is clear a four-factor analysis would not yield further reasonable emission reductions, or are subject to stringent emission control measures. New Jersey's SIP-approved control measures, emissions inventory [111] and information provided in response to comments [112] demonstrate that the sources of SO_2 and NO_X within the state that would be expected to contribute to visibility impairment have small emissions of NO_X and SO_2, are well controlled, or both. New Jersey's SIP-approved sulfur in fuel limits sets stringent limits for sulfur content and SO_2 emissions for both sulfur in solid fuels [113] and sulfur in non-solid fuels.[114] New Jersey's SIP-approved NO_X RACT regulations include stringent limits on boilers serving EGUs, stationary combustion turbines, ICI boilers and other indirect heat exchangers, stationary reciprocating engines, asphalt pavement production plants, glass manufacturing furnaces, emergency generators, MSW incinerators, sewage sludge incinerators, high electric demand day units and other sources of NO_X. (83 FR 50506, October 9, 2018). Therefore, it is reasonable to assume that selecting additional sources from MANE–VU's or FLMs' lists for four-factor analysis would not have resulted in additional emission reduction measures being determined to be necessary to make reasonable progress for the second implementation period.

Additionally, MANE–VU conducted a four-factor analysis to support Ask 3, which requests that states pursue ultra-low sulfur fuel oil standards to address SO_2 emissions. New Jersey has done so and included its regulations in its SIP. This also contributes to satisfying the requirements that states determine the emission reduction measures that are necessary to make reasonable progress by considering the four factors, and that their long-term strategies include the enforceable emission limitations, compliance schedules, and other measures necessary to make reasonable progress. To the extent that MANE–VU and New Jersey regard the measures in Asks 1 and 4 through 6 as being part of the region's strategy for making reasonable progress, we propose to find it reasonable for New Jersey to address these Asks by pointing to existing measures that satisfy each.

c. Additional Long-Term Strategy Requirements

The consultation requirements of § 51.308(f)(2)(ii) provides that states must consult with other states that are reasonably anticipated to contribute to visibility impairment in a Class I area to develop coordinate emission management strategies containing the emission reductions measures that are necessary to make reasonable progress. Section 51.308(f)(2)(ii)(A) and (B) require states to consider the emission reduction measures identified by other states as necessary for reasonable progress and to include agreed upon measures in their SIPs, respectively. Section 51.308(f)(2)(ii)(C) speaks to what happens if states cannot agree on what measures are necessary to make reasonable progress.

New Jersey participated in and provided documentation of the MANE–VU intra- and inter-RPO consultation processes and addressed the MANE–VU Asks by providing information on the measures it has in place that satisfy each Ask.[115] MANE–VU also documented disagreements that occurred during consultation. MANE–VU noted in their Consultation Report that upwind states expressed concern regarding the analyses the RPO utilized for the selection of states for the consultation. MANE–VU agreed that these tools, as all models, have their limitations, but nonetheless deemed them appropriate. Additionally, there were several comments regarding the choice of the 2011 modeling base year. MANE–VU agreed that the choice of base year is critical to the outcome of the study. MANE–VU acknowledged that there were newer versions of the emission inventories and the need to use the best available inventory for each analysis. However, MANE–VU disagreed that the choice of these inventories was not appropriate for the analysis. Upwind states also suggested that MANE–VU states adopt the 2021 timeline for regional haze SIP submissions for the second planning period. MANE–VU agreed with the reasons the comments provided, such as collaboration with data and planning efforts. However, MANE–VU disagreed that the 2018

[108] Peaking combustion turbine is defined for the purpose of this Ask as a turbine capable of generating 15 megawatts or more, that commenced operation prior to May 1, 2007, is used to generate electricity all or part of which is delivered to electric power distribution grid for commercial sale and that operated less than or equal to an average of 1,752 hours (or 20%) per year during 2014 to 2016.

[109] High electric demand days are days when higher than usual electrical demands bring additional generation units online, many of which are infrequently operated and may have significantly higher emissions rates of the generation fleet.

[110] See docket documents ''Existing Combined Cycle Turbines'' and ''Existing Simple Cycle Turbines'' for further information.

[111] See appendix E1 ''Selection of States for MANE–VU Regional Haze Consultation (2018)—Final'' and ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP.''

[112] See appendix K ''Public Participation—Final.'' At page 239.

[113] See N.J.A.C. 7:27–10 ''Sulfur in Solid Fuels''.

[114] See N.J.A.C. 7:27–9 ''Sulfur in Fuels''.

[115] See appendix D ''MANE–VU Regional Haze Consultation Report and Consultation Documentation—Final.''

timeline would prohibit collaboration. Additionally, upwind states noted that they would not be able to address the MANE–VU Asks until they finalize their SIPs. MANE–VU believed the assumption of the implementation of the Asks from upwind states in its 2028 control case modeling was reasonable, however New Jersey did include the 2028 base case and control case modeling in their SIP, representing visibility conditions at Brigantine Wilderness assuming upwind states do not and do implement the Asks, respectively. Additionally, New Jersey received comments from Virginia, West Virginia, North Carolina, and Alabama on their proposed regional haze SIP documenting those states' disagreement with the MANE–VU Asks. In their response to comments, New Jersey noted that it understands that states will conduct their own regional haze analysis to determine long term strategies to pursue in their SIPs and that New Jersey believes the MANE–VU Asks are reasonable and provide them to upwind states for consideration.[116]

In sum, New Jersey participated in the MANE–VU intra- and inter-RPO consultation and satisfied the MANE–VU Asks, satisfying § 51.308(f)(2)(ii)(A) and (B). New Jersey satisfied § 51.308(f)(2)(ii)(C) by participating in MANE–VU's consultation process, which documented the disagreements between the upwind states and MANE–VU and explained MANE–VU's reasoning on each of the disputed issues. Based on the entirety of MANE–VU's intra- and inter-RPO consultation and both MANE–VU's and New Jersey's responses to states' comments on the SIP submission and various technical analyses therein, we propose to determine that New Jersey has satisfied the consultation requirements of § 51.308(f)(2)(ii).

The documentation requirement of § 51.308(f)(2)(iii) provides that states may meet their obligations to document the technical bases on which they are relying to determine the emission reductions measures that are necessary to make reasonable progress through an RPO, as long as the process has been ''approved by all State participants.'' As explained above, New Jersey chose to rely on MANE–VU's technical information, modeling, and analysis to support development of its long-term strategy. The MANE–VU technical analyses on which New Jersey relied are listed in the state's SIP submission and include source contribution assessments, information on each of the four factors and visibility modeling information for certain EGUs, and evaluations of emission reduction strategies for specific source categories. New Jersey also provided supplemental information to further demonstrate the technical bases and emission information on which it relied on to determine the emission reductions measures that are necessary to make reasonable progress. Based on the documentation provided by the state, we propose to find New Jersey satisfies the requirements of § 51.308(f)(2)(iii).

Section 51.308(f)(2)(iii) also requires that the emissions information considered to determine the measures that are necessary to make reasonable progress include information on emissions for the most recent year for which the state has submitted triennial emissions data to the EPA (or a more recent year), with a 12-month exemption period for newly submitted data. New Jersey's SIP submission included 2014 NEI emission data for NO_X, SO_2, PM, VOCs and NH_3 and 2017 Air Markets Program Data (AMPD) emissions for NO_X and SO_2. New Jersey's supplemental information included 2019 AMPD and 2017 NEI emission data for NO_X.[117] Further, EPA supplemented the submission by adding a spreadsheet that includes all NEI emissions through 2017 for further clarification.[118] Based on New Jersey's consideration and analysis of the 2017 and 2019 emission data in their SIP submittal and supplemental documentation, the EPA proposes to find that New Jersey has satisfied the emissions information requirement in 51.308(f)(2)(iii).

We also propose to find that New Jersey reasonably considered the five additional factors in § 51.308(f)(2)(iv) in developing its long-term strategy. Pursuant to § 51.308(f)(2)(iv)(A), New Jersey noted that existing and ongoing state and federal emission control programs that contribute to emission reductions through 2028 would impact emissions of visibility impairing pollutants from point and nonpoint sources in the second implementation period. New Jersey included in their SIP comprehensive lists of control measures with their effective dates, pollutants addressed, and corresponding New Jersey Administrative Code provisions.[119]

New Jersey's consideration of measures to mitigate the impacts of construction activities as required by § 51.308(f)(2)(iv)(B) includes, in section 4.6.7.2 of its SIP submission, a list of measures that New Jersey has implemented to mitigate the impacts from such activities. New Jersey has implemented standards that reduce fugitive dust emissions from construction,[120] rules to address exhaust emissions including rules to limit the idling of vehicles and equipment,[121] rules to reduce allowable smoke from on-road diesel engines,[122] and general conformity rules.[123]

Pursuant to § 51.308(f)(2)(iv)(C), source retirements and replacement schedules are addressed in section 4.6.7.3 of New Jersey's submission. Source retirements and replacements were considered in developing the 2028 emission projections, with on the books/on the way retirements and replacements included in the 2028 projections. The EGU point sources included in the inventories used in the MANE–VU contribution assessment and that were subsequently retired are identified in Table 4–5.[124] No non-EGU point source retirements in New Jersey were considered when developing the 2028 emissions projections.

In considering smoke management as required in 40 CFR 51.308(f)(2)(iv)(D), New Jersey explained, in section 4.6.7.4 of its submission, that it addresses smoke management through its SIP-approved Open Burning rules.[125] Open Burn rules limit all types of open burning within the state and require that, where open burning is allowed, it is conducted only after obtaining an air pollution control and Forest Fire Service permit. These rules have been in effect since 1956, with subsequent revisions further restricting open burning. The rules prohibit open burning and have been successful in minimizing burning throughout the

[116] See Appendix K ''Public Participation—Final''.

[117] See docket document ''New Jersey Air Pollutant Emissions Trends Data''.

[118] *Id.*

[119] See tables 4–3 and 4–4 of the NJ Regional Haze SIP—Final March 2020.

[120] Standards for Soil Erosion and Sediment Control in New Jersey. Promulgated by the New Jersey State Soil Conservation Committee. Adopted July 1999.

[121] N.J.A.C. 7:27–14.3 for diesel fueled vehicles and N.J.A.C. 7:27–15.8 for gasoline fueled vehicles.

[122] N.J.A.C. 7:27–14: Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles (Including Idling) (41 N.J.R. 4195 (b)). *https://www.nj.gov/dep/aqm/CPR-041708.pdf.*

[123] The authority to address General Conformity is set forth in Section 176(c) of the Clean Air Act and the requirements to demonstrate conformity are found in the EPA's implementing regulation (40 CFR part 93, subpart B—Determining Conformity of General Federal Actions to State or Federal Implementation Plans). New Jersey has established General Conformity budgets for McGuire Air Force Base and Lakehurst Naval Air Station for VOCs and NO_X.

[124] See tables 4–5 of the NJ Regional Haze SIP—Final March 2020.

[125] N.J.A.C. 7:27–2 *https://www.nj.gov/dep/aqm/rules27.html.*

state. New Jersey also has several existing measures that help improve visibility at Brigantine Wilderness Area and other Class I areas impacted by emissions from New Jersey, including residential wood burning outreach and education.[126]

New Jersey considered the anticipated net effect of projected changes in emissions as required by 51.308(f)(2)(iv)(E) by discussing, in section 4.6.7.5 of its submission, the photochemical modeling for the 2018–2028 period it conducted in collaboration with MANE–VU. The two modeling cases run were a 2028 base case, which considered only on-the-books controls, and a 2028 control case that considered implementation of the MANE–VU Ask. New Jersey presented the differences between the base and control cases on the 20% most impaired and 20% clearest days for each MANE–VU Class I area and explained that, ''[e]ven though the visibility improvement between [the cases] is small, states are expected to do their part to ensure incremental progress towards the 2064 visibility goal.'' [127]

Because New Jersey has reasonably considered each of the five additional factors the EPA proposes to find that New Jersey has satisfied the requirements of 40 CFR 51.308(f)(2)(iv).

F. Reasonable Progress Goals

Section 51.308(f)(3) contains the requirements pertaining to RPGs for each Class I area. Because New Jersey is host to a Class I area, it is subject to both § 51.308(f)(3)(i) and, potentially, to (ii). § 51.308(f)(3)(i) requires a state in which a Class I area is located to establish RPGs—one each for the most impaired and clearest days—reflecting the visibility conditions that will be achieved at the end of the implementation period as a result of the emission limitations, compliance schedules and other measures required under paragraph (f)(2) to be in states' long-term strategies, as well as implementation of other CAA requirements. The long-term strategies as reflected by the RPGs must provide for an improvement in visibility on the most impaired days relative to the baseline period and ensure no degradation on the clearest days relative to the baseline period. Section 51.308(f)(3)(ii) applies in circumstances in which a Class I area's RPG for the most impaired days represents a slower rate of visibility improvement than the uniform rate of progress calculated under 40 CFR 51.308(f)(1)(vi). Under § 51.308(f)(3)(ii)(A), if the state in which a mandatory Class I area is located establishes an RPG for the most impaired days that provides for a slower rate of visibility improvement than the URP, the state must demonstrate that there are no additional emission reduction measures for anthropogenic sources or groups of sources in the state that would be reasonable to include in its long-term strategy. Section 51.308(f)(3)(ii)(B) requires that if a state contains sources that are reasonably anticipated to contribute to visibility impairment in a Class I area in *another* state, and the RPG for the most impaired days in that Class I area is above the URP, the upwind state must provide the same demonstration.

Table 3–1 of New Jersey's SIP submittal summarizes baseline visibility conditions (*i.e.,* visibility conditions during the baseline period) for the most impaired and clearest days and the 2028 RPG for the most impaired days for Brigantine Wilderness Area, as well as information on natural visibility conditions, the rate of progress described by the URP in 2017 and 2028, and the modeled 2028 base case (representing visibility conditions in 2028 with existing controls). These visibility conditions, as well as the 2028 reasonable progress goal for the clearest days, are also included in Appendix I2 of New Jersey's SIP submission.[128] Baseline visibility conditions at Brigantine were 14.33 and 27.43 deciviews for the clearest and most impaired days, respectively. New Jersey's 2028 RPGs for the clearest and most impaired days were set at 10.47 and 17.97 deciviews. Thus, New Jersey's 2028 RPG for the clearest days constitutes an improvement over baseline visibility conditions as well as an improvement over the current (2013–2017) visibility conditions, which are 11.48 deciviews. For the most impaired days, the 2028 RPG of 17.97 deciviews also represents an improvement relative to both baseline visibility conditions and current visibility conditions, which are 19.86 deciviews.

New Jersey explained that the 2028 RPGs assume that upwind states—states that also contribute to visibility impairment at Brigantine—will implement the MANE–VU Asks or other control measures that achieve similar reductions.[129] Section 51.308(f)(3)(i) specifies that RPGs must reflect ''enforceable emissions limitations, compliance schedules, and other measures *required under paragraph (f)(2)* of this section'' (emphasis added). EPA interprets this provision as requiring that only emission reduction measures that states—including upwind states—have determined to be necessary for reasonable progress and incorporated into their long-term strategies be reflected in a Class I area's RPGs. This ensures that RPGs include only those measures that are reasonably certain to be implemented. However, New Jersey's 2028 RPGs include measures for upwind states that, as of now, those states have not determined to be necessary to make reasonable progress and not included in their long-term strategies. New Jersey's RPGs thus do not represent upwind states' long-term strategies and as a result is not representative of what the RPGs should be set at. New Jersey's 2028 most impaired base case of 18.16 deciviews reflects the visibility conditions that are projected to be achieved based on states' existing measures. As such, EPA considers the 2028 modeled base case value of 18.16 deciviews to be a more appropriate, conservative estimate of the RPG for the 20% most impaired visibility days. Irrespective of the measures New Jersey assumed upwind states will implement, EPA expects that the observed deciview value in 2028 will actually be equal to or lower than the 18.16 deciview estimate due to numerous coal-fired utility boilers in upwind states have recently retired or are expected to retire under enforceable commitments before 2028. Even assuming the conservative estimate of 18.16 deciviews on the most impaired days in 2028, though, the RPG would constitute improvement over the baseline visibility conditions of 27.43 deciviews and the current (2013–2017) visibility conditions of 19.86 deciviews. Therefore, the long-term strategy and the reasonable progress goals provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period. 40 CFR 51.308(f)(3)(i).

As noted in the RHR at 40 CFR 51.308(f)(3)(iii), the reasonable progress goals are not directly enforceable, but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan in providing for reasonable progress towards achieving natural visibility conditions at that area. Regardless of whether we regard the 2028 RPG for the most impaired days to be 17.97 deciviews or 18.16 deciviews, the

[126] *https://www.state.nj.us/dep/baqp/woodburning.html.*

[127] NJ Regional Haze SIP—Final March 2020 at 38.

[128] See Appendix I2 ''Appendix I2—MANEVU Trends 2004–17 Report 2nd SIP Metrics—December 2018 Update—Final''.

[129] *Id.*

regulatory purpose of the RPGs has been fulfilled because visibility conditions at the Brigantine Wilderness have improved since the baseline period. EPA is therefore proposing to find that New Jersey's RPGs satisfy the applicable requirements and provide for reasonable progress towards achieving natural conditions.

Table 3–1 of New Jersey's submission provides that the value of the URP in 2028 for the Brigantine Wilderness Area is 20.74 deciviews. As explained above, EPA considers a value of 18.16 deciviews to be a more appropriate, conservative estimate of the 2028 RPG for the most impaired days. Regardless of whether the 2028 RPG for the most impaired days is 17.97 deciviews of 18.16 deciviews, New Jersey's RPG is below the URP and the demonstration requirement under § 51.308(f)(3)(ii)(A) is not triggered.

Under § 51.308(f)(3)(ii)(B), a state that contains sources that are reasonably anticipated to contribute to visibility impairment in a Class I area in another state for which a demonstration by the other state is required under 51.308(f)(3)(ii)(B) must demonstrate that there are no additional emission reduction measures that would be reasonable to include in its long-term strategy. New Jersey's SIP revision included the modeled MANE–VU 2028 visibility projections at nearby Class I areas.[130] While these projections may not represent the final RPGs for these Class I areas, all of the base case 2028 projections for the most impaired days at these areas (Acadia, Brigantine, Great Gulf, Lye Brook, Moosehorn, Dolly Sods and Shenandoah) are well below the respective 2028 points on the URPs. Therefore, we propose it is reasonable to assume that the demonstration requirement under § 51.308(f)(3)(ii)(B) as it pertains to these areas will not be triggered.

The EPA proposes to determine that New Jersey has satisfied the applicable requirements of 40 CFR 51.308(f)(3) relating to RPGs.

G. Monitoring Strategy and Other Implementation Plan Requirements

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

According to section 7.2 of New Jersey's SIP submission, the IMPROVE monitor for the Brigantine Wilderness Area (indicated as BRIG1 in the IMPROVE monitoring network database) is located outside the Edwin B. Forsythe National Wildlife Refuge Headquarters in Oceanville, New Jersey. The monitoring station is located as close as practicable to, but not within, the wilderness area to limit and protect the ecological and biological resources of the wilderness area. The proximity of the monitor to the wilderness area ensures that the air monitoring data collected is representative of the air quality within the wilderness area.

Section 51.308(f)(6)(i) requires SIPs to provide for the establishment of any additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the state are being achieved. Regional haze data for Brigantine Wilderness Area are collected by an IMPROVE monitor that is operated and maintained by the U.S. Fish and Wildlife Service. In 2007, NJDEP established, at the same location, a monitoring station that measures trace level SO_2 and $PM_{2.5}$ using continuous and Federal reference methods for sample collection. A visibility camera was also installed in 2007. This station replaces the one previously located nearby at the Nacote Creek Research station in Galloway Township.

Section 51.308(f)(6)(ii) requires SIPs to provide for procedures by which monitoring data and other information are used in determining the contribution of emissions from within the state to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the state. New Jersey relied on the MANE–VU contribution assessment analysis.[131] The analysis included include Eulerian (grid-based) source models, Lagrangian (air parcel-based) source dispersion models, as well as a variety of data analysis techniques that include source apportionment models, back trajectory calculations, and the use of monitoring and inventory data.

Section 51.308(f)(6)(iii) does not apply to New Jersey, as it has a Class I area.

Section 51.308(f)(6)(iv) requires the SIP to provide for the reporting of all visibility monitoring data to the Administrator at least annually for each Class I area in the state. As noted above, the Brigantine Wilderness Area IMPROVE monitor is operated and maintained by the U.S. Fish and Wildlife Service. The monitoring strategy for New Jersey relies upon the continued availability of the IMPROVE network. The IMPROVE monitor for the Brigantine Wilderness Area (indicated as BRIG1 in the IMPROVE monitoring network database) is located outside the Edwin B. Forsythe National Wildlife Refuge Headquarters in Oceanville, New Jersey. New Jersey supports the continued operation of the IMPROVE network through both state and Federal funding mechanisms.

Section 51.308(f)(6)(v) requires SIPs to provide for a statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment, including emissions for the most recent year for which data are available and estimates of future projected emissions. It also requires a commitment to update the inventory periodically. New Jersey provides for emissions inventories and estimates for future projected emissions by participating in the MANE–VU RPO and complying with EPA's Air Emissions Reporting Rule (AERR). In 40 CFR part 51, subpart A, the AERR requires states to submit updated emissions inventories for criteria pollutants to EPA's Emissions Inventory System (EIS) every three years. The emission inventory data is used to develop the NEI, which provides for, among other things, a triennial statewide inventory of pollutants that are reasonably anticipated to cause or contribute to visibility impairment.

Section 8 of New Jersey's submission includes tables of NEI data. The source categories of the emissions inventories included are: (1) Point sources, (2) nonpoint sources, (3) non-road mobile sources, and (4) on-road mobile sources. The point source category is further divided into AMPD point sources and non-AMPD point sources.[132] New Jersey included NEI emissions inventories for the following years: 2002 (one of the regional haze program baseline years),

[130] See Appendix I2 ''MANE–VU Trends 2004–17 Report 2nd SIP Metrics—December 2018 Update—Final.''

[131] See Appendix G for the contribution assessments.

[132] AMPD sources are facilities that participate in EPA's emission trading programs. The majority of AMPD sources are electric generating units (EGUs).

2008, 2011, 2014, and 2017;[133] and for the following pollutants: SO_2, NO_X, PM_{10}, PM 2.5, VOCs, CO, and NH_3. New Jersey also provided a summary of SO_2 and NO_X emissions for AMPD sources for the years of 2016, 2017, 2018, and 2019.[134]

Section 51.308(f)(6)(v) also requires states to include estimates of future projected emissions and include a commitment to update the inventory periodically. New Jersey relied on the MANE–VU 2028 emissions projections for MANE–VU states. MANE–VU completed two 2028 projected emissions modeling cases—a 2028 base case that considers only on-the-books controls and a 2028 control case that considers implementation of the MANE–VU Asks.[135]

The EPA proposes to find that New Jersey has met the requirements of 40 CFR 51.308(f)(6) as described above, including through its continued participation in the IMPROVE network and the MANE–VU RPO and its on-going compliance with the AERR, and that no further elements are necessary at this time for New Jersey to assess and report on visibility pursuant to 40 CFR 51.308(f)(6)(vi).

H. Requirements for Periodic Reports Describing Progress Towards the Reasonable Progress Goals

Section 51.308(f)(5) requires that periodic comprehensive revisions of states' regional haze plans also address the progress report requirements of 40 CFR 51.308(g)(1) through (5). The purpose of these requirements is to evaluate progress towards the applicable RPGs for each Class I area within the state and each Class I area outside the state that may be affected by emissions from within that state. Sections 51.308(g)(1) and (2) apply to all states and require a description of the status of implementation of all measures included in a state's first implementation period regional haze plan and a summary of the emission reductions achieved through implementation of those measures. Section 51.308(g)(3) applies only to states with Class I areas within their borders and requires such states to assess current visibility conditions, changes in visibility relative to baseline (2000–2004) visibility conditions, and changes in visibility conditions relative to the period addressed in the first implementation period progress report. Section 51.308(g)(4) applies to all states and requires an analysis tracking changes in emissions of pollutants contributing to visibility impairment from all sources and sectors since the period addressed by the first implementation period progress report. This provision further specifies the year or years through which the analysis must extend depending on the type of source and the platform through which its emission information is reported. Finally, § 51.308(g)(5), which also applies to all states, requires an assessment of any significant changes in anthropogenic emissions within or outside the state have occurred since the period addressed by the first implementation period progress report, including whether such changes were anticipated and whether they have limited or impeded expected progress towards reducing emissions and improving visibility.

New Jersey's submission describes the status of measures of the long-term strategy from the first implementation period. As a member of MANE–VU, New Jersey considered the MANE–VU Asks and adopted corresponding measures into its long-term strategy for the first implementation period. The MANE–VU Asks were: (1) Timely implementation of Best Available Retrofit Technology (BART) requirements; (2) EGU controls including Controls at 167 Key Sources that most affect MANE–VU Class I areas; (3) Low sulfur fuel oil strategy; and (4) Continued evaluation of other control measures. New Jersey met all the identified reasonable measures requested during the first implementation period. During the first planning period for regional haze, programs that were put in place focused on reducing sulfur dioxide (SO_2) emissions. The reductions achieved led to vast improvements in visibility at the MANE–VU Federal Class I Areas due to reduced sulfates formed from SO_2 emissions. New Jersey lists in Table 4–4 an expansive list of post 2011 control measures that help control the emissions of VOCs, NO_X, PM and SO_2 from a wide range of sources.[136] New Jersey's SIP submission includes emission data demonstrating the reductions achieved throughout the state through implementation of the measures mentioned in Table 4–4. The state included periodic emission data that demonstrates a decrease in VOCs, NO_X, PM and SO_2 emissions throughout the state.

The EPA proposes to find that New Jersey has met the requirements of 40 CFR 51.308(g)(1) and (2) because its SIP submission describes the measures included in the long-term strategy from the first implementation period, as well as the status of their implementation and the emission reductions achieved through such implementation.

New Jersey's SIP submission included summaries of the visibility conditions and the trend of the 5-year averages through 2017 at the class I Brigantine Wilderness area. The SIP submission included the 5-year baseline (2000–2004) visibility conditions for the clearest and most impaired days of 14.33 and 27.43 deciviews, respectively. The SIP submission also included the current 5-year status (2013–2017) for the clearest and most impaired days of 11.48 and 19.86 deciviews, respectively.[137] The SIP submission also illustrated in Figure 2–2 the visibility metrics levels at Brigantine Wilderness Area, including the 5-year rolling average for the clearest and most impaired days.[138] EPA therefore proposes to find that New Jersey as satisfied the requirements of 40 CFR 51.308(g)(3).

Pursuant to § 51.308(g)(4), in chapter 8 of their submittal, New Jersey provided a summary of emissions of NO_X, SO_2, PM_{10}, $PM_{2.5}$, VOCs, and NH_3 from all sources and activities, including from point, nonpoint, non-road mobile, and on-road mobile sources, for the time period from 2002 to 2014. New Jersey also included AMPD data for SO_2 and NO_X emissions for 2016 and 2017 in their submission. Additional 2017 NEI and 2019 AMPD emission data for NO_X was included in the state's supplemental information.[139] Additionally, EPA has included a spreadsheet that tracks New Jersey air pollutant emissions trends data through 2017 for all NEI pollutants.[140]

The reductions achieved by New Jersey emission control measures are seen in the emissions inventory. Based on New Jersey's SIP submission, their

[133] See docket document ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP'' for the 2017 NEI data.

[134] See docket document ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP'' for the 2018 and 2019 AMPD data.

[135] See appendix C ''OTC MANE–VU 2011 Based Modeling Platform Support Document October 2018—Final.''

[136] See Table 4–4: ''Control Measures Post 2011'' of New Jersey's SIP submission.

[137] See Table 2–1'' ''Comparison of Natural, Baseline, and Current Visibility Conditions in Deciviews for the 20 percent Clearest and 20 percent Most Impaired at Brigantine Wilderness Area'' of New Jersey's SIP submission.

[138] See Appendix I ''Visibility Metrics—Final'' for additional visibility metrics throughout the MANE–VU class I areas.

[139] See docket document ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP.''

[140] See ''New Jersey Air Pollutant Emissions Trends Data'' in the docket.

supplemental information [141] and the EPA-provided supplemental information in the ''New Jersey Air Pollutant Emissions Trends Data'' spreadsheet included in the docket, NO_X emissions have continuously declined in New Jersey from 2002 through 2017, especially in the point, nonroad and onroad mobile sectors. NO_X emissions are expected to continue to decrease as fleet turnover occurs and the older more polluting vehicles and equipment are replaced by newer, cleaner ones. During that period, onroad sources contributed almost half of the emissions at 48%, followed by area sources at 23%. Nonroad sources contributed 17% and point sources contributed the least at 13%. Table 6 of the supplemental information shows additional NO_X emissions data from 2016 to 2019 for New Jersey's point sources that report to EPA's AMPD.[142]

Emissions of SO_2 have shown a steady significant decline in New Jersey over the period 2002 to 2017, particularly in the point, nonroad and onroad mobile sectors.[143] Reductions in point emissions are primarily due to the acid rain program, New Jersey power plant consent decrees and regulations, and Federal and State low sulfur fuel regulations.[144] Additionally, some of these decreases are attributable to the MANE–VU low sulfur fuel strategy and the 90% or greater reduction in SO_2 emissions at 167 EGU stacks, both inside and outside of MANE–VU, requested in the ''Non-MANE–VU Ask'' for states within MANE–VU for the first regional haze planning period.[145] Since some components of the MANE–VU low sulfur fuel strategy have milestones of 2016 and 2018, and as MANE–VU states continue to adopt rules to implement the strategy, additional SO_2 emissions reductions have likely been obtained since 2017 and are expected to continue into the future.

In New Jersey's submission, table 8–7 shows a summary of PM_{10} emissions from all NEI data categories point, nonpoint, non-road, and onroad for the period from 2002 to 2014 in New Jersey. In New Jersey, PM_{10} emissions steadily decreased in the point, nonpoint, and nonroad categories for the period from 2002 to 2014. The variations in the onroad are due to changes in emission inventory calculation methodologies, which resulted in higher particulate matter estimates in the other years than in 2002. The large variation in emissions in the nonpoint category is due to changes in calculation methodologies for residential wood burning and fugitive dust categories, which have varied significantly.

Table 8–10 of New Jersey's submission shows a summary of $PM_{2.5}$ emissions from all NEI data categories for the period from 2002 to 2014 in New Jersey. $PM_{2.5}$ emissions steadily decreased in the nonroad category for the period from 2002 to 2014. The decrease in $PM_{2.5}$ emissions is because of Federal new engine standards for nonroad vehicles and equipment. There is an overall decrease in onroad emissions due to Federal and State regulations. The increase in emissions in the onroad category from 2002 to 2008 is due to changes in emission inventory calculation methodologies and a model change, as previously explained, which resulted in higher fine particulate matter estimates in the years after 2002. The large variation in emissions in the nonpoint category is due to changes in calculation methodologies for residential wood burning and fugitive dust categories, which have varied significantly. The other large decrease in $PM_{2.5}$ emissions is primarily due to the decrease in emissions from fuel combustion at EGU and Industrial stationary sources, with the emissions dropping from 5,269 tpy in 2008 to 1,528 tpy in 2017.

Table 8–21 of New Jersey's submission shows VOC emissions from all NEI data categories for the period 2002 to 2014 in New Jersey. VOC emissions have shown a steady decline in New Jersey over the period 2002 to 2014. VOC decreases were achieved in all sectors due to Federal new engine standards for onroad and nonroad vehicles and equipment, the National and State low emission vehicle programs, SIP-approved area source rules such as consumer products, portable fuel containers, paints, autobody refinishing, asphalt paving applications, and solvent cleaning operations, and point source controls such as refinery consent decrees and New Jersey's VOC storage tank rule.

Table 8–24 of New Jersey's submission shows ammonia (NH_3) emissions from all NEI data categories for the period 2002 to 2014 in New Jersey. Ammonia decreases were achieved in the onroad and nonroad sectors due to Federal new engine standards for vehicles and equipment. Point source increases from 2002 to 2008 are due to reporting, grouping and methodology changes, not actual emission increases. NH_3 emissions were not reported to New Jersey's emission statements program in 2002, therefore, they were estimated by EPA. Reporting to New Jersey's emission statement program began in 2003. Nonpoint increases and decreases from 2002 to 2014 are due to reporting, grouping and methodology changes. Overall, ammonia emissions have decreased from 2008 to 2014. Emissions from 2002–2008 are not comparable to post-2008 emissions due to methodology changes.

The EPA is proposing to find that New Jersey has satisfied the requirements of § 51.308(g)(4) by providing emissions information for NO_X, SO_2, PM_{10}, $PM_{2.5}$, VOCs, and NH_3 broken down by type of source.

New Jersey uses the emissions trend data in the SIP submission [146] and the supplemental information [147] provided to support the assessment that anthropogenic haze-causing pollutant emissions in New Jersey have decreased during the reporting period and that changes in emissions have not limited or impeded progress in reducing pollutant emissions and improving visibility, New Jersey's 2017 emission inventories for NO_X, SO_2, PM_{10}, $PM_{2.5}$, VOCs, and NH_3 were lower than their 2014 emission inventories for those same pollutants emissions.[148] The EPA is proposing to find that New Jersey has met the requirements of § 51.308(g)(5).

I. Requirements for State and Federal Land Manager Coordination

Section 51.308(i)(2)'s FLM consultation provision requires a state to provide FLMs with an opportunity for consultation that is early enough in the state's policy analyses of its emission reduction obligation so that information and recommendations provided by the FLMs' can meaningfully inform the state's decisions on its long-term strategy. If the consultation has taken place at least 120 days before a public hearing or public comment period, the opportunity for consultation will be deemed early enough, Regardless, the opportunity for consultation must be provided at least

[141] See ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP.''

[142] *Id.*

[143] See ''New Jersey Air Pollutant Emissions Trends Data'' in the docket.

[144] See ''Table 4–3: New Jersey's Post 2002 Control Measures'' in the NJ Regional Haze SIP—Final March 2020.

[145] Statement of the Mid-Atlantic/Northeast Visibility Union (MANE–VU) Concerning a Course of Action within MANE–VU Toward Assuring Reasonable Progress. (*https://otcair.org/MANEVU/Upload/Publication/Formal%20Actions/Statement%20on%20Controls%20in%20MV_072007.pdf*).

[146] See ''NJ Regional Haze SIP—Final March 2020'' Chapter 8 ''Emissions Trends and Inventory''.

[147] See docket document ''Supplemental Information for New Jersey's March 2020 Regional Haze SIP''.

[148] See docket document ''New Jersey Air Pollutant Emissions Trends Data''.

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

The states in the MANE–VU RPO conducted FLM consultation early in the planning process concurrent with the state-to-state consultation that formed the basis of the RPO's decision making process. As part of the consultation, the FLMs were given the opportunity to review and comment on the technical documents developed by MANE–VU. The FLMs were invited to attend the intra- and inter-RPO consultations calls among states and at least one FLM representative was documented to have attended seven intra-RPO meetings and all inter-RPO meetings. New Jersey participated in these consultation meetings and calls.[149]

As part of this early engagement with the FLMs, on April 12, 2018, the NPS sent letters to the MANE–VU states requesting that they consider specific individual sources in their long-term strategies.[150] NPS used an analysis of emissions divided by distance (Q/d) to estimate the impact of MANE–VU facilities. To select the facilities, NPS first summed 2014 NEI NO_X, PM_{10}, SO_2, and SO_4 emissions and divided by the distance to a specified NPS mandatory Class I Federal area. NPS summed the Q/d values across all MANE–VU states relative to Acadia, Mammoth Cave and Shenandoah National Parks, ranked the Q/d values relative to each Class I area, created a running total, and identified those facilities contributing to 80% of the total impact at each NPS Class I area. NPS applied a similar process to facilities in Maine relative to Acadia National Park. NPS merged the resulting lists of facilities and sorted them by their states. NPS suggested that a state consider those facilities comprising 80% of the Q/d total, not to exceed the 25 top ranked facilities. The NPS identified 10 facilities in New Jersey in this letter.[151] New Jersey included the NPS initial letter in their proposed SIP. In a subsequent letter dated October 22, 2018, NPS identified six facilities for which more control information was desired. New Jersey detailed the emission controls and updates to the six facilities to address the NPS's request for more information, as discussed previously.[152]

On May 30, 2019, New Jersey submitted a draft Regional Haze SIP to the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the National Park Service for a 60-day review and comment period pursuant to 40 CFR 51.308(i)(2).[153] New Jersey received comments from the Forest Service on July 23, 2019, and from the National Park Service on July 26, 2019. New Jersey responded to the FLM comments and included the responses in appendix K of their submission to EPA, in accordance with § 51.308(i)(3). Notices of the proposed SIP, availability and the public hearing were published on NJDEP's website and issued on three NJDEP air quality listservs on August 22, 2019. In addition, interested parties not on the NJDEP's listservs were emailed the notice, along with air quality contacts from other states, air quality regional organizations and the EPA. A public hearing on the proposed SIP revision was held on September 25, 2019, at the NJDEP office. Written comments relevant to the proposal were accepted until the close of business October 22, 2019.

For the reasons stated above, the EPA proposes to find that New Jersey has satisfied the requirements under 40 CFR 51.308(i) to consult with the FLMs on its regional haze SIP for the second implementation period.

New Jersey's March 2020 SIP submission includes a commitment to revise and submit a regional haze SIP by July 31, 2028, and every ten years thereafter. The state's commitment includes submitting periodic progress reports in accordance with § 51.308(f) and a commitment to evaluate progress towards the reasonable progress goal for each mandatory Class I Federal area located within the state and in each mandatory Class I Federal area located outside the state that may be affected by emissions from within the state in accordance with § 51.308(g).[154]

V. Proposed Action

The EPA is proposing to approve New Jersey's March 26, 2020 SIP submission, supplemented on September 8, 2020, and April 1, 2021, as satisfying the regional haze requirements for the second implementation period contained in 40 CFR 51.308(f).

VI. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely 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 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);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not 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, this proposed rulemaking action, pertaining to New Jersey regional haze SIP submission for the second

[149] See Appendix D ''MANE–VU Regional Haze Consultation Report and Consultation Documentation—Final.''

[150] *Id.*

[151] *Id.*

[152] See Appendix K ''Public Participation—Final''.

[153] *Id.*

[154] See the preface and Chapter 9 of the ''NJ Regional Haze SIP—Final March 2020.''

planning period, 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, Nitrogen dioxide, Ozone, Particulate matter, Sulfur oxides.

Lisa Garcia,

Regional Administrator, Region 2.

[FR Doc. 2022–17265 Filed 8–18–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R06–OAR–2021–0837; FRL–10029–01–R6]

Air Plan Approval; New Mexico; Clean Air Act Requirements for Nonattainment New Source Review Permitting for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to approve revisions to the New Mexico State Implementation Plan (SIP) submitted by the State of New Mexico on August 10, 2021, that update the New Mexico Nonattainment New Source Review (NNSR) permitting program for the 2015 8-hour ozone National Ambient Air Quality Standards (NAAQS).

DATES: Written comments must be received on or before September 19, 2022.

ADDRESSES: Submit your comments, identified by Docket No. EPA–R06–OAR–2021–0837, at *https://www.regulations.gov* or via email to *wiley.adina@epa.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *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, please contact Adina Wiley, (214) 665–2115, *wiley.adina@epa.gov.* 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.*

Docket: The index to the docket for this action is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

FOR FURTHER INFORMATION CONTACT: Adina Wiley, EPA Region 6 Office, Air Permits Section (ARPE), 214–665–2115, *wiley.adina@epa.gov.* Out of an abundance of caution for members of the public and our staff, the EPA Region 6 office may be closed to the public to reduce the risk of transmitting COVID–19. We encourage the public to submit comments via *https://www.regulations.gov.* Please call or email the contact listed above if you need alternative access to material indexed but not provided in the docket.

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

I. Background

Ozone is a gas that is formed by the reaction of Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_X) in the atmosphere in the presence of sunlight. These precursors (VOC and NO_X) are emitted by many types of pollution sources, including point sources such as power plants and industrial emissions sources; on-road and off-road mobile sources (motor vehicles and engines); and smaller residential and commercial sources, such as dry cleaners, auto body shops, and household paints, collectively referred to as area sources.

On October 1, 2015, the EPA revised both the primary and secondary ozone NAAQS [1] from a concentration level of 0.075 part per million (ppm) to 0.070 ppm to provide increased protection of public health and the environment (80 FR 65296, October 26, 2015). The 2015 8-hour ozone NAAQS retains the same general form and averaging time as the 0.075 ppm NAAQS set in 2008. Specifically, the 2015 8-hour ozone NAAQS is attained when the 3-year average of the annual fourth-highest daily maximum 8-hour average ambient air quality ozone concentrations is less than or equal to 0.070 ppm.[2]

On March 9, 2018 (83 FR 10376), the EPA published the Classifications Rule that prescribes how the statutory classifications will apply for the 2015 8-hour ozone NAAQS, including the air quality thresholds for each classification category and attainment deadline associated with each classification.

On June 4, 2018 (83 FR 25776), the EPA designated the Sunland Park Area in southern Doña Ana County, New Mexico as marginal nonattainment for the 2015 8-hour ozone NAAQS with an attainment deadline of August 3, 2021.[3] On November 30, 2021 (86 FR 67864), the EPA expanded the marginal nonattainment area that previously only included the Sunland Park Area in Doña Ana County, New Mexico to also include El Paso County, Texas and renamed the marginal nonattainment designated area as the El Paso-Las Cruces, TX–NM nonattainment area.

On December 6, 2018 (83 FR 6299), the EPA published the Nonattainment Area SIP Requirements rule that establishes the minimum elements that must be included in all nonattainment SIPs, including the requirements for NNSR permitting.

On August 10, 2021, the New Mexico Environment Department (NMED) submitted a SIP revision to the New Mexico NNSR permitting program to

[1] The primary ozone standards provide protection for children, older adults, and people with asthma or other lung diseases, and other at-risk populations against an array of adverse health effects that include reduced lung function, increased respiratory symptoms and pulmonary inflammation; effects that contribute to emergency department visits or hospital admissions; and mortality. The secondary ozone standards protect against adverse effects to the public welfare, including those related to impacts on sensitive vegetation and forested ecosystems. *See* CAA Section 109(b).

[2] For a detailed explanation of the calculation of the 3-year 8-hour average, see 80 FR 65296 and 40 Code of Federal Regulations (CFR) part 50, appendix U.

[3] The specific portion of New Mexico included in the nonattainment area is defined as the area bounded on the New Mexico-Texas state line on the east, the New Mexico-Mexico international line on the south, latitude N31°49′0″ on the north, and longitude W106°36′36″ on the west. See 83 FR 25776, 25820.