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40 CFR Part 52
Approval and Promulgation of Air Quality Implementation Plans; State of New York; Regional Haze State Implementation Plan and Federal Implementation Plan; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R02–OAR–2012–0296, FRL–9663–9]

Approval and Promulgation of Air Quality Implementation Plans; State of New York; Regional Haze State Implementation Plan and Federal Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to partially approve and partially disapprove the revision to the State Implementation Plan (SIP) addressing regional haze submitted by the State of New York on March 15, 2010, and supplemented on August 2, 2010. New York's revised SIP reduces regional haze during the first planning period from 2008 through 2018. This revision addresses the requirements of the Clean Air Act and EPA's rules that require states to prevent any future, and remedy any existing, man-made impairment of visibility in mandatory Class I areas caused by emissions of air pollutants located over a wide geographic area (also referred to as the ''regional haze program''). EPA is proposing a Federal Implementation Plan (FIP) to address the deficiencies identified in our proposed partial disapproval of New York's regional haze SIP. In lieu of this proposed FIP, or a portion thereof, we are proposing approval of a SIP revision if the State submits such a revision in a timely way, and the revision matches the terms of our proposed FIP. EPA is also proposing approval of New York's Best Available Retrofit Technology regulation, Part 249.

DATES: *Comments:* Comments must be received on or before June 18, 2012.

Public Hearing: A public hearing, if requested, will be held at USEPA Region 2, 290 Broadway, New York, New York 10007–1866, on May 16, 2012, beginning at 9 a.m. If you wish to request a hearing and present testimony or attend the hearing, you should notify, on or before May 4, 2012, Ms. Katherine Doctor, Air Programs Branch, EPA Region 2, 290 Broadway, New York, New York 10007–1866; telephone number: (212) 637–4249; fax number (212) 637–3901; email address *doctor.katherine@epa.gov*.

Oral testimony will be limited to 5 minutes each. The hearing will be strictly limited to the subject matter of the proposal, the scope of which is discussed below. EPA will not respond to comments during the public hearing. EPA will not be providing equipment for commenters to show overhead slides or make computerized slide presentations. Any member of the public may file a written statement by the close of the comment period. Written statements (duplicate copies preferred) should be submitted to Docket ID No. EPA–R2–OAR–2012–0296, at the address listed for submitting comments. A verbatim transcript of the hearing and written statements will be made available for copying during normal working hours at the address listed for inspection for documents. If no requests for a public hearing are received by close of business on May 4, 2012, a hearing will not be held; please contact Ms. Doctor to find out if the hearing will actually be held or will be cancelled for lack of any request to speak.

ADDRESSES: Submit your comments, identified by Docket Number EPA–R02–OAR–2012–0296, by one of the following methods:

- *www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *Email: werner.raymond@epa.gov*.
- *Fax:* 212–637–3901.
- *Mail:* Raymond Werner, Chief, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th Floor, New York, New York 10007–1866.
- *Hand Delivery:* Raymond Werner, Chief, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th Floor, New York, New York 10007–1866. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30 excluding Federal holidays.

Instructions: Direct your comments to Docket No. EPA–R02–OAR–2012–0296. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or email. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *www.regulations.gov* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters or any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/air/docket.html*.

Docket: All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the Environmental Protection Agency, Region 2 Office, Air Programs Branch, 290 Broadway, 25th Floor, New York, New York 10007–1866. EPA requests, if at all possible, that you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8 a.m. to 4 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Robert F. Kelly, State Implementation Planning Section, Air Programs Branch, EPA Region 2, 290 Broadway, New York, New York 10007–1866. The telephone number is (212) 637–4049. Mr. Kelly can also be reached via electronic mail at *kelly.bob@epa.gov*.

SUPPLEMENTARY INFORMATION:

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

I. What action is EPA proposing?

A. Proposed Actions

EPA is proposing to partially approve and partially disapprove the revision to the New York State Implementation Plan (SIP) addressing regional haze under the Clean Air Act (CAA or the Act) sections 301(a) and 110(k)(3), submitted on March 15, 2010, and supplemented on August 2, 2010.

1. EPA proposes to disapprove the following Best Available Retrofit Technology (BART) determinations:

- New York's Sulfur Dioxide (SO_2) BART determinations and emissions limits for Units 1 and 2 of Dynegy's Roseton Generating Station.
- New York's SO_2 BART determinations and emissions limits for Unit 4 of Dynegy's Danskammer Generating Station.
- New York's SO_2, Nitrogen Oxide (NO_X) and Particulate Matter (PM) emissions limits for Boiler 42 of Kodak's Eastman Business Park.

2. EPA proposes to disapprove the following facility BART determinations and emission limits because while New York has proposed permit modifications, New York has not issued final permit modifications or submitted them to EPA as a SIP revision:

- New York's SO_2, NO_X and PM BART determinations and emissions limits at the following facilities, with owners of sources [in brackets]:
  - Bowline Point Generating Station [GenOn]
  - Danskammer Generating Station [Dynegy]
  - Owens Corning Delmar Plant
  - Oswego Harbor Power [NRG]
  - Syracuse Energy Corporation [GDF Suez]
  - Kodak Park Division

3. EPA proposes to disapprove the following facility BART determinations and emission limits because New York has not submitted final permit modifications to EPA as a SIP revision. EPA has reviewed the BART determinations for these facilities and New York has issued final permit modifications. EPA would propose to approve these final permit modifications, but New York has not submitted them to EPA as SIP revisions. Therefore EPA proposes to disapprove the following and we propose a FIP to address this deficiency:

- New York's SO_2, NO_X and PM BART determinations and emissions limits for the following facilities, with owners of sources [in brackets]:
  - EF Barrett Power Station [National Grid (NG)]
  - Northport Power Station [NG]
  - 59th Street Station [Con Ed]
  - Arthur Kill Generating Station [NRG]
  - Ravenswood Generating Station [Trans Canada (TC)]
  - Ravenswood Steam Plant [Con Edison]
  - Roseton Generating Station [Dynegy]
  - Holcim (US) Inc—Catskill Plant
  - Lafarge Building Materials
  - International Paper Ticonderoga Mill
  - Lehigh Northeast Cement
  - ALCOA Massena Operations (West Plant)
  - Samuel A Carlson Generating Station [Jamestown Board of Public Utilities (BPU)]

4. EPA is proposing a Federal Implementation Plan (FIP) to address the deficiencies identified above in paragraphs 1, 2 and 3 in our proposed partial disapproval of New York's Regional Haze SIP. In lieu of this proposed FIP, or a portion thereof, we are proposing approval of a SIP revision if the State submits such a revision in a timely way, and the revision matches the terms of our proposed FIP, or relevant portion thereof. See also paragraph 6 below.

5. EPA proposes to approve the remaining aspects of New York's Regional Haze SIP revision as follows:

- New York's determination under the reasonable progress requirements found at 40 CFR 51.308(d)(1) that all measures or their equivalents found to be reasonable by the State, and agreed to by the MANE–VU [1] states, have been enacted and implemented.
- New York's Long Term Strategy, as required by the Act, will be approvable, only if New York submits all of the final permit modifications in a timely manner, and with the level of control in EPA's proposed FIP [note that EPA's FIP for these permits, if enacted, would also result in an approvable Long Term Strategy, under the FIP.]
- New York's SIP revision consisting of New York's Best Available Retrofit Technology (BART) regulation, Part 249.

6. EPA proposes in the alternative to approve the following facility BART determinations and emissions limits should New York submit final permit modifications to EPA as SIP revisions, and the revisions match the terms of our proposed FIP:

- Bowline Point Generating Station [GenOn]
- Danskammer Generating Station [Dynegy]
- Owens Corning Delmar Plant
- Osweg
- Harbor Power [NRG]
- Syracuse Energy Corporation [GDF Suez]
- Kodak Park Division
- EF Barrett Power Station [National Grid (NG)]
- Northport Power Station [NG]
- 59th Street Station [Con Ed]
- Arthur Kill Generating Station [NRG]
- Ravenswood Generating Station [TC]
- Ravenswood Steam Plant [Con Edison]
- Roseton Generating Station [Dynegy]
- Holcim (US) Inc—Catskill Plant
- Lafarge Building Materials
- International Paper Ticonderoga Mill
- Lehigh Northeast Cement

[1] MANE–VU is the Mid-Atlantic/North East Visibility Union, comprising Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, the District of Columbia, the Penobscot Nation, and the St. Regis Mohawk Tribe.

○ ALCOA Massena Operations (West Plant)

○ Samuel A Carlson Generating Station [Jamestown Board of Public Utilities (BPU)]

B. SIP and FIP Background

The CAA requires each state to develop plans to meet various air quality requirements, including protection of visibility. (CAA sections 110(a), 169A, and 169B). The plans developed by a state are referred to as SIPs. A state must submit its SIPs and SIP revisions to us for approval. Once approved, a SIP is federally enforceable, that is enforceable by EPA and citizens under the CAA. If a state fails to make a required SIP submittal or if we find that a state's required submittal is incomplete or unapprovable, then we must promulgate a FIP to fill this regulatory gap. (CAA section 110(c)(1)). As discussed elsewhere in this action, we are proposing to disapprove aspects of New York's Regional Haze SIP. We are proposing FIPs to address the deficiencies in New York's regional haze submittal, in the event New York fails to submit the required elements for this SIP revision.

C. Implication of Clean Air Interstate Rule and Cross State Air Pollution Rule

Consistent with EPA guidance and regulations, (see 70 FR 39104, 39106 (July 6, 2005)), many states relied on EPA's Clean Air Interstate Rule (CAIR) to satisfy key elements of Regional Haze SIPs. The DC Circuit, however, found CAIR to be inconsistent with the requirements of the Act and remanded the rule to the Agency. *North Carolina* v. *EPA,* 531 F.3d 896, 929–30 (D.C. Cir. 2008); modified on rehearing, *North Carolina* v. *EPA,* 550 F.3d 1176, 1178 (D.C. Cir. 2008). In response to the remand of the CAIR rule, on July 6, 2011 EPA finalized the Cross-State Air Pollution Rule (CSAPR); a rule intended to reduce the interstate transport of fine particulate matter and ozone, 76 FR 48208 (Aug. 8, 2011).

Although New York was subject to CAIR, its Regional Haze SIP did not rely on CAIR to meet the requirements for BART or for attaining the in-state emissions reductions necessary to ensure reasonable progress. Instead, New York evaluated controls for its potential BART sources. New York made BART determinations for its BART-eligible sources, including Electric Generating Units (EGUs) that might have been controlled under CAIR. Similarly, its long-term strategy for attaining the Reasonable Progress Goals (RPGs) at nearby Class I areas includes controls on EGUs in New York. Therefore, the remand of CAIR has no negative effect on the amount of emission reductions New York will achieve from its Regional Haze SIP revision. This action and the accompanying Technical Support Document (TSD) explain the basis for EPA's proposed actions on New York's Regional Haze SIP revision proposal.

New York's SIP obtains the emission reductions needed with respect to the Regional Haze SIP requirements, including the recommendation of the Mid-Atlantic/Northeast Visibility Union (MANE–VU) regional planning organization.[2]

II. What is the background for EPA's proposed action?

Regional haze is visibility impairment that is produced by many sources and activities which are located across a broad geographic area and emit fine particles and their precursors (e.g., sulfur dioxide, nitrogen oxides, and in some cases, ammonia and volatile organic compounds). Fine particle precursors react in the atmosphere to form fine particulate matter ($PM_{2.5}$) (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust), which also impairs visibility by scattering and absorbing light. Visibility impairment reduces the clarity, color, and visible distance that one can see. Visibility impairment caused by air pollution occurs virtually all the time at most national parks and wilderness areas, many of which are also established under the Act as Federal Class I areas. (CAA section 162(a)).

In the 1977 Amendments to the CAA, Congress initiated a program for protecting visibility in the nation's national parks and wilderness areas. Section 169A(a)(1) of the Act establishes as a national goal the ''prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution.'' In 1990 Congress added section 169B to the Act to address regional haze issues. On July 1, 1999 EPA promulgated the Regional Haze Rule (RHR) (64 FR 35714). The requirement to submit a Regional Haze SIP applies to New York and all 50 states, the District of Columbia and the Virgin Islands. 40 CFR 51.308(b) of the RHR required states to submit the first implementation plan addressing regional haze visibility impairment no later than December 17, 2007.

On January 15, 2009, EPA issued a finding that New York failed to submit the Regional Haze SIP. 74 FR 2392 (Jan. 15, 2009). New York subsequently submitted its Regional Haze SIP on March 15, 2010. EPA's January 15, 2009 finding established a two-year deadline of January 15, 2011 for EPA to either approve New York's Regional Haze SIP, or adopt a FIP. This proposed action is intended to address the January 15, 2009 finding.

Because the pollutants that lead to regional haze can originate from sources located across broad geographic areas, EPA has encouraged the states and tribes across the United States to address visibility impairment from a regional perspective. Five regional planning organizations (RPOs) were developed to address regional haze and related issues. New York, as noted above, participates in the MANE–VU RPO.

III. What are the requirements for Regional Haze SIPs?

The following is a basic explanation of the RHR. See 40 CFR 51.308 for a complete listing of the regulations under which this SIP revision was evaluated.

A. The Act and the Regional Haze Rule (RHR)

Regional Haze SIPs must assure reasonable progress towards the national goal of achieving natural visibility conditions in Class I areas. Section 169A of the Act and EPA's implementing regulations require states to establish long-term strategies for making reasonable progress toward meeting this goal. Implementation plans must also give specific attention to certain stationary sources that were in existence on August 7, 1977, but were not in operation before August 7, 1962, and require these sources, where appropriate, to install BART controls for the purpose of eliminating or reducing visibility impairment. The specific regional haze SIP requirements are discussed in further detail below.

B. Determination of Baseline, Natural, and Current Visibility Conditions

The RHR establishes the deciview (dv) as the principal metric for measuring visibility. This visibility metric expresses uniform changes in haziness in terms of common

[2] On June 20, 2007, MANE–VU adopted two documents which provide the technical basis for consultation among the interested parties and define the basic strategies for controlling pollutants that cause visibility impairment at Class I areas in the eastern United States. The documents, entitled ''Statement of the Mid-Atlantic/Northeast Visibility Union (MANE–VU) Concerning a Course of Action within MANE–VU toward Assuring Reasonable Progress,'' and ''Statement of the Mid-Atlantic/Northeast Visibility Union (MANE–VU) Concerning a Request for a Course of Action by States outside of MANE–VU toward Assuring Reasonable Progress'' are together known as the MANE–VU ''Ask.''

increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Visibility is determined by measuring the visual range, which is the greatest distance, in kilometers or miles, at which a dark object can be viewed against the sky. The dv is calculated from visibility measurements. Each change of 1.0 dv is an equal incremental change in visibility perceived by the human eye. For this reason, EPA believes it is a useful measure for tracking progress in improving visibility. Most people can detect a change in visibility at one dv.[3]

The dv is used in expressing RPGs (which are interim visibility goals towards meeting the national visibility goal), defining baseline, current, and natural conditions, and tracking changes in visibility. The regional haze SIPs must contain measures that ensure ''reasonable progress'' toward the national goal of preventing and remedying visibility impairment in Class I areas caused by manmade air pollution by reducing anthropogenic emissions that cause regional haze. The national goal is a return to natural conditions, i.e., manmade sources of air pollution would no longer impair visibility in Class I areas.

To track changes in visibility over time at each of the 156 Class I areas covered by the visibility program (40 CFR 81.401–437) and as part of the process for determining reasonable progress, the RHR requires states to calculate the degree of existing visibility impairment at each Class I area at the time of each regional haze SIP submittal and periodically review progress every five years midway through each 10-year planning period. To do this, the RHR requires states to determine the degree of impairment (in dv) for the average of the 20 percent least impaired (''best'') and 20 percent most impaired (''worst'') visibility days over a specified time period at each of their Class I areas. In addition, the RHR requires states to develop an estimate of natural visibility conditions for the purposes of comparing progress toward the national goal. Natural visibility is determined by estimating the natural concentrations of pollutants that cause visibility impairment and then calculating total light extinction based on those estimates. EPA has provided guidance to states regarding how to calculate baseline, natural and current visibility conditions.[4]

For the initial regional haze SIPs that were due by December 17, 2007, baseline visibility conditions were used as the starting points for assessing current visibility impairment. Baseline visibility conditions represent the degree of impairment for the 20 percent least impaired days and 20 percent most impaired days at the time the regional haze program was established. Using monitoring data for 2000 through 2004, the RHR required states to calculate the average degree of visibility impairment for each Class I area in the state, based on the average of annual values over the five year period. The comparison of initial baseline visibility conditions to natural visibility conditions indicates the amount of improvement necessary to attain natural visibility, while the future comparison of baseline conditions to the then current conditions will indicate the amount of progress made. In general, the 2000–2004 baseline period is considered the time from which improvement in visibility is measured.

C. Determination of Reasonable Progress Goals (RPGs)

The submission of a series of regional haze SIPs from the states that establish RPGs for Class I areas for each (approximately) 10-year planning period is the vehicle for ensuring continuing progress towards achieving the natural visibility goal. The RHR does not mandate specific milestones or rates of progress, but instead calls for states to establish goals that provide for ''reasonable progress'' toward achieving natural (i.e., ''background'') visibility conditions. In setting RPGs, states must provide for an improvement in visibility for the most impaired days over the (approximately) 10-year period of the SIP, and ensure no degradation in visibility for the least impaired days over the same period.

States have significant discretion in establishing RPGs, but are required to consider the following factors established in the Act and in EPA's RHR: (1) The costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources. States must demonstrate in their SIPs how these factors are considered when selecting the RPGs for the best and worst days for each applicable Class I area. (See 40 CFR 51.308(d)(1)(i)(A)). States have considerable flexibility in how they take these factors into consideration, as noted in our Reasonable Progress guidance.[5] In setting the RPGs, states must also consider the rate of progress needed to reach natural visibility conditions by 2064 (referred to as the ''uniform rate of progress'' or the ''glidepath'') and the emission reduction measures needed to achieve that rate of progress over the 10-year period of the SIP. In setting RPGs, each state with one or more Class I areas (''Class I State'') must also consult with potentially ''contributing states,'' i.e., other nearby states with emission sources that may be affecting visibility impairment at the Class I State's areas. (40 CFR 51.308(d)(1)(iv)).

D. Best Available Retrofit Control Technology (BART)

Section 169A of the Act directs states to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, the Act requires states to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the natural visibility goal, including a requirement that certain categories of existing stationary sources[6] built between 1962 and 1977 procure, install, and operate the ''Best Available Retrofit Control Technology (BART)'' as determined by the state. (CAA 169A(b)(2)(A)). States are directed to conduct BART determinations for such sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area. Rather than requiring source-specific BART controls, states also have the flexibility to adopt an emissions trading program or other alternative program as long as the alternative provides equal or greater reasonable progress towards improving visibility than BART.

On July 6, 2005, EPA published the *Guidelines for BART Determinations Under the Regional Haze Rule* at Appendix Y to 40 CFR Part 51 (hereinafter referred to as the ''BART Guidelines'') to assist states in

[3] The preamble to the RHR provides additional details about the deciview (64 FR 35714, 35725 (July 1, 1999)).

[4] *Guidance for Estimating Natural Visibility conditions under the Regional Haze Rule,* September 2003, (EPA–454/B–03–005 located at *http://www.epa.gov/ttncaaa1/t1/memoranda/rh_envcurhr_gd.pdf*), (hereinafter referred to as ''EPA's 2003 Natural Visibility Guidance''), and *Guidance for Tracking Progress Under the Regional Haze Rule* (EPA–454/B–03–004 September 2003 located at *http://www.epa.gov/ttncaaa1/t1/memoranda/rh_tpurhr_gd.pdf*), (hereinafter referred to as ''EPA's 2003 Tracking Progress Guidance'').

[5] *Guidance for Setting Reasonable Progress Goals under the Regional Haze Program,* (''EPA's Reasonable Progress Guidance''), July 1, 2007, memorandum from William L. Wehrum, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, EPA Regions 1–10 (pp. 4–2, 5–1).

[6] The set of ''major stationary sources'' potentially subject to BART are listed in CAA section 169A(g)(7).

determining which of their sources should be subject to the BART requirements and in determining appropriate emission limits for each applicable source. The BART Guidelines require states to use the approach set forth in the BART Guidelines in making a BART applicability determination for a fossil fuel-fired electric generating plant with a total generating capacity in excess of 750 megawatts. The BART Guidelines encourage, but do not require states to follow the BART Guidelines in making BART determinations for other types of sources.

The BART Guidelines recommend that states address all visibility impairing pollutants emitted by a source in the BART determination process. The most significant visibility impairing pollutants are sulfur dioxide (SO_2), nitrogen oxides (NO_X), and particulate matter (PM). The BART Guidelines direct states to use their best judgment in determining whether volatile organic compounds (VOCs), or ammonia (NH_3) and ammonia compounds impair visibility in Class I areas.

In their SIPs, states must identify potential BART sources, described as ''BART-eligible sources'' in the RHR, and document their BART control determination analyses. In making BART determinations, section 169A(g)(2) of the CAA requires that states consider the following factors: (1) The costs of compliance, (2) the energy and non-air quality environmental impacts of compliance, (3) any existing pollution control technology in use at the source, (4) the remaining useful life of the source, and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. States are free to determine the weight and significance to be assigned to each factor. (70 FR 39170, (July 6, 2005)).

A regional haze SIP must include source-specific BART emission limits and compliance schedules for each source subject to BART. Once a state has made its BART determination, the BART controls must be installed and in operation as expeditiously as practicable, but no later than five years after the date of EPA approval of the regional haze SIP, as required in the Act (section 169A(g)(4)) and in the RHR (40 CFR 51.308(e)(1)(iv)). In addition to what is required by the RHR, general SIP requirements mandate that the SIP must also include all regulatory requirements related to monitoring, recordkeeping, and reporting for the BART controls on the source. States have the flexibility to choose the type of control measures they will use to meet the requirements of BART.

E. Long-Term Strategy (LTS)

Consistent with the requirement in section 169A(b) of the Act that states include in their regional haze SIP a 10 to 15 year strategy for making reasonable progress, section 51.308(d)(3) of the RHR requires that states include a Long-Term Strategy (LTS) in their SIPs. The LTS is the compilation of all control measures a state will use to meet any applicable RPGs. The LTS must include ''enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals'' for all Class I areas within, or affected by emissions from, the state. (40 CFR 51.308(d)(3)).

When a state's emissions are reasonably anticipated to cause or contribute to visibility impairment in a Class I area located in another state, the RHR requires the impacted state to coordinate with the contributing states in order to develop coordinated emissions management strategies. (40 CFR 51.308(d)(3)(i)). In such cases, the contributing state must demonstrate that it has included in its SIP all measures necessary to obtain its share of the emission reductions needed to meet the RPGs for the Class I area. The RPOs have provided forums for significant interstate consultation, but additional consultations between states may be required to sufficiently address interstate visibility issues. This is especially true where two states belong to different RPOs.

States should consider all types of anthropogenic sources of visibility impairment in developing their LTS, including stationary, minor, mobile, and area sources. At a minimum, states must describe how each of the seven factors listed below is taken into account in developing their LTS: (1) Emission reductions due to ongoing air pollution control programs, including measures to address Reasonably Attributable Visibility Impairment (RAVI); (2) measures to mitigate the impacts of construction activities; (3) emissions limitations and schedules for compliance to achieve the RPG; (4) source retirement and replacement schedules; (5) smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the state for these purposes; (6) enforceability of emissions limitations and control measures; (7) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the LTS. (40 CFR 51.308(d)(3)(v)).

F. Coordinating Regional Haze and Reasonably Attributable Visibility Impairment (RAVI)

As part of the RHR, EPA revised 40 CFR 51.306(c) regarding the LTS for states with Class I areas to require that the RAVI plan must provide for a periodic review and SIP revision not less frequently than every three years until the date of submission of the state's first plan addressing regional haze visibility impairment, which was due December 17, 2007, in accordance with 51.308(b) and (c). On or before this date, the state must revise its plan to provide for review and revision of a coordinated LTS for addressing reasonably attributable and regional haze visibility impairment, and the state must submit the first such coordinated LTS with its first regional haze SIP revision. Future coordinated LTSs, and periodic progress reports evaluating progress towards RPGs, must be submitted consistent with the schedule for SIP submission and periodic progress reports set forth in 40 CFR 51.308(f) and 51.308(g), respectively. The periodic reviews of a state's LTS must report on both regional haze and RAVI impairment and must be submitted to EPA as a SIP revision, in accordance with 51.308.

G. Monitoring Strategy and Other Implementation Plan Requirements

If a state has a Class I Federal Area in the state, the requirements in Section 51.308(d)(4) of the RHR must be met. These requirements include a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the state and this strategy must be coordinated with the monitoring strategy required in section 51.305 for RAVI. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environment (IMPROVE) network. The monitoring strategy is due with the first regional haze SIP, and it must be reviewed every five years. Note that Section 51.308(d)(4) contains a list of additional items the implementation plan must address.

H. Consultation With States and Federal Land Managers (FLMs)

The RHR requires that states consult with FLMs before adopting and submitting their SIPs. (40 CFR 51.308(i)). States must provide FLMs an opportunity for consultation, in person

and at least 60 days prior to holding any public hearing on the SIP. This consultation must include the opportunity for the FLMs to discuss their assessment of impairment of visibility in any Class I area and to offer recommendations on the development of the RPGs and on the development and implementation of strategies to address visibility impairment. Further, a state must include in its SIP a description of how it addressed any comments provided by the FLMs. Finally, a SIP 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.

IV. What is EPA's analysis of New York's regional haze submittal?

On March 15, 2010, New York State submitted a revision to the New York SIP to address regional haze in Class I areas in nearby states as required by EPA's RHR.

A. Affected Class I Areas

New York does not contain any Class I areas, but it impacts several in nearby states based on MANE–VU's contribution analyses (as discussed in the TSD), including the Lye Brook Wilderness Area, VT, Brigantine Wildlife Refuge, NJ, Presidential Range-Dry River Wilderness Area and Great Gulf Wilderness Area, NH, Roosevelt-Campobello International Park, Acadia National Park, Moosehorn Wildlife Refuge, ME, and the Shenandoah National Park in VA. For these locations, the FLMs have identified visual impairment as an important value that must be addressed in regional haze plans. New York is responsible for developing a Regional Haze SIP that addresses visibility in these Class I areas, articulates New York's long-term emission strategy, describes the state's role in the consultation processes, and describes how its SIP meets the other requirements in EPA's regional haze regulations. However, since New York has no Class I areas within its borders, New York is not required to calculate baseline and natural visibility conditions, establish RPGs, meet monitoring or RAVI requirements as described by EPA's RHR for states that have Class I areas.

B. Long-Term Strategy/Strategies (LTS)

As described above, the Long Term Strategy (LTS) is a compilation of state-specific control measures relied on by the state to obtain its share of emission reductions to support the RPGs for the Class I areas impacted by New York. These impacted states develop the LTS for the first implementation period, which addresses the emissions reductions from Federal, state, and local controls that take effect in the baseline period starting in 2002 until 2018. New York participated in the MANE–VU RPO regional strategy development process. As a participant, New York supported a regional approach towards deciding which control measures to pursue for regional haze, which was based on technical analyses documented in the following reports: (a) Contributions to Regional Haze in the Northeast and Mid-Atlantic United States; [7] (b) Assessment of Reasonable Progress for Regional Haze in MANE–VU Class I Areas; [8] (c) Five-Factor Analysis of BART-Eligible Sources: Survey of Options for Conducting BART Determinations; [9] and (d) Assessment of Control Technology Options for BART-Eligible Sources: Steam Electric Boilers, Industrial Boilers, Cement Plants and Paper, and Pulp Facilities.[10]

The LTS was developed by New York, in coordination with MANE–VU, identifying the emissions units within New York that likely have the largest impacts currently on visibility at Class I areas, estimating emissions reductions for 2018, based on all controls required under Federal and state regulations for the 2002–2018 period (including BART), and comparing projected visibility improvement with the uniform rate of progress for the various Class I areas.

New York's LTS includes measures needed to achieve its share of emissions reductions agreed upon through the consultation process with New York and includes enforceable emissions limitations, compliance schedules, and other measures necessary to achieve the reasonable progress goals established for the Class I areas.

1. Emissions Inventory for 2018 With Federal and State Control Requirements

The emissions inventory used in the regional haze technical analyses was developed by the Mid-Atlantic Regional Air Management Association for MANE–VU with assistance from New York. The 2018 emissions inventory projected 2002 emissions to 2018, including emissions growth due to projected increases in economic activity as well as applying reductions expected from Federal and state regulations affecting the emissions of VOC and the visibility-impairing pollutants NO_X, PM_{10}, $PM_{2.5}$, and SO_2. The BART guidelines direct states to exercise judgment in deciding whether VOC and NH_3 impair visibility in their Class I area(s). Tables 1 and 2 are summaries of the 2002 baseline and 2018 estimated emissions inventories for New York. The 2018 estimated emissions include emission growth as well as emission reductions due to ongoing emission control strategies to meet RPGs and BART.

These emissions were used in the modeling that demonstrated that the Class I areas affected by emissions from New York and other states would meet the Reasonable Progress Goal set for 2018. New York adopted the emission reductions that are forecast to improve visibility to meet the goals for 2018, thus New York is projected to achieve its share of the emission reduction goal for the first implementation period, as long as its final permit modifications for BART sources are submitted to EPA in a timely fashion, and meet the emission limits described in EPA's FIP for these sources. If EPA's FIP is implemented, then the LTS would be approvable, since the EPA will have completed the implementation of BART for New York State's BART-eligible sources.

TABLE 1—MANE–VU MODELING INVENTORY SUMMARY: 2002 BASE INVENTORY FOR NEW YORK STATE—TONS PER YEAR

Sector	CO	NO_X	VOC	NH_3	SO_2	Primary PM_{10}	Primary $PM_{2.5}$
Area	356,287	98,804	502,797	67,198	113,978	356,348	85,841

[7] NESCAUM Report at *http://www.nescaum.org/documents/contributions-to-regional-haze-in-the-northeast-and-mid-atlantic--united-states/*

[8] MANE–VU Report at *http://www.otcair.org/manevu/Document.asp?fview=Reports.*

[9] NESCAUM Report at *http://www.nescaum.org/documents/bart-final-memo-06-28-07.pdf/.*

[10] NESCAUM Report at *http://www.nescaum.org/documents/bart-control-assessment.pdf/.*

TABLE 1—MANE–VU MODELING INVENTORY SUMMARY: 2002 BASE INVENTORY FOR NEW YORK STATE—TONS PER YEAR—Continued

Sector	CO	NO_X	VOC	NH_3	SO_2	Primary PM_{10}	Primary $PM_{2.5}$
Point	66,157	118,765	15,033	1,709	286,393	9,834	7,014
Nonroad	1,205,509	119,808	158,121	79	13,288	9,605	9,000
Onroad	2,942,730	313,888	179,731	14,439	10,229	7,599	5,402
Biogenic	63,436	8,313	492,483				
Totals	4,634,119	659,578	1,348,165	83,425	423,888	383,386	107,257

TABLE 2—MANE–VU MODELING INVENTORY SUMMARY: 2018 PROJECTION INVENTORY FOR NEW YORK STATE—TONS PER YEAR

Sector	CO	NO_X	VOC	NH_3	SO_2	Primary PM_{10}	Primary $PM_{2.5}$
Area	307,659	108,444	457,421	96,078	89,591	392,027	86,422
Point	101,118	55,681	13,091	2,767	118,936	17,062	13,460
Nonroad	1,474,727	72,400	104,562	103	1,686	5,830	5,349
Onroad	1,694,820	78,365	68,104	19,167	1,794	2,775	2,542
Biogenic	63,436	8,313	492,483				
Totals	3,641,760	323,203	1.135,662	118,115	263,824	417,694	107,773

As discussed further below, MANE–VU demonstrated that anthropogenic emissions of sulfates are the major contributor to $PM_{2.5}$ mass and visibility impairment at Class I areas in the Northeast and Mid-Atlantic regions. It was also determined that the total ammonia emissions in the MANE–VU region are extremely small. In addition, since VOC emissions are aggressively controlled through the New York ozone SIP, the pollutants New York considered under BART are NO_X, PM_{10}, $PM_{2.5}$, and SO_2.

In developing the 2018 reasonable progress goal, and the 2018 projection inventory, Class I area states relied primarily upon the information and analyses developed by MANE–VU to meet the requirements of EPA's regional haze rules. Based on information from the contribution assessment and additional emission inventory analyses, MANE–VU identified the following source categories for further examination for reasonable measures:

- Coal and oil-fired EGUs
- Point and area source industrial, commercial and institutional (ICI) boilers
- Cement and Lime Kilns
- Heating oil, and
- Residential wood combustion

MANE–VU, for its member states and tribes, analyzed these potential source categories based on the four factors listed in section 169A(g)(1) of the Act and in Section III.C of this action. New York and the MANE–VU states agreed with the analysis that determined that reasonable controls existed for coal and oil-fired EGUs, industrial, commercial and institutional (ICI) boilers, cement and lime kilns, and that reducing the sulfur content of heating oil was a reasonable strategy. Additionally, MANE–VU determined that due to the lack of specific data for the wide range of residential wood boilers, it was not reasonable to set particular reductions amounts for emissions from residential wood boilers.

New York adopted controls on EGUs, boilers and cement kilns. While New York's plan does not include emission reduction regulations for residential wood boilers, New York will consider state specific wood burning provisions, which was the strategy agreed to by the MANE–VU states. ICI boiler controls were implemented as an Ozone Transport Commission (OTC) regional measure for VOC and NO_X controls that have benefits for reducing regional haze. More details on the adopted controls are described later in this section.

After identifying potential control measures and performing the four factor analysis, MANE–VU performed initial modeling that showed the visibility impacts from the implementation of the measures. The initial modeling results showed that the projected 2018 visibility on the 20% worst days at the Class I areas affected by New York's emissions was at least as good at the uniform rate of progress. Details of MANE–VU's initial modeling were later documented in the MANE–VU Modeling for RPGs report.[11] Based on the modeling results and other analysis performed by MANE–VU, the MANE–VU states developed ''Asks,'' which are ''emission management'' strategies. These strategies served as the basis for the consultation with the other states.

As part of the modeling needed to assess the emission reductions needed to meet the RPG, MANE–VU developed emissions inventories for four inventory source classifications: (1) stationary point sources, (2) area sources, (3) off-road mobile sources, and (4) on-road mobile sources. The New York State Department of Environmental Conservation also developed an inventory of biogenic emissions for the entire MANE–VU region. Stationary point emission sources are those sources that emit greater than a specified tonnage per year, depending on the pollutant, with data provided at the facility level. Area source emissions are from stationary sources whose individual emissions are relatively small, but due to the large number of these sources, the collective emissions from the source category could be significant. Off-road mobile source emissions are from equipment that can move but do not use the roadways. On-road mobile source emissions are from automobiles, trucks, and motorcycles that use the roadway system. The emissions from these sources are estimated by vehicle type and road type. Biogenic sources emissions are from natural sources like trees, crops, grasses, and natural decay of plants. Stationary point sources emission data is tracked at the facility level. For all other source

[11] MANE–VU Modeling for Reasonable Progress Goals. February 7, 2008.

types emissions are summed on the county level.

There are many Federal and state control programs being implemented that MANE–VU and New York anticipate will reduce emissions between the baseline period and 2018. Emission reductions from these control programs were projected to achieve substantial visibility improvement by 2018 in the Class I areas affected by New York's emissions. To assess emissions reductions from ongoing air pollution control programs, BART, and controls required for reasonable progress, MANE–VU states developed emissions projections for 2018. The 2018 emissions inventory in Table 2 is a projection of emissions based on the measures the states need to adopt to achieve reasonable programs. The states submit SIPs that have adopted and enforceable requirements, as well as Federal programs, such as Federal motor vehicle control programs and maximum achievable control technologies (MACT).

These measures are included in the MANE–VU modeling used to determine the amount of visibility improvement in Class I areas. MANE–VU States agreed to implement several measures at the state level. These measures are: A timely implementation of BART requirements, 90 percent or more reduction in sulfur dioxide at 167 EGU stacks identified by MANE–VU (or comparable alternative measures), and low sulfur fuel oil regulations (with limits specified for each state).

Controls from various Federal MACT regulations were also utilized in the development of the 2018 emission inventory projections. These MACTs include the industrial boiler/process heater MACT, the combustion turbine and reciprocating internal combustion engines MACTs, and the VOC 2-, 4-, 7-, and 10-year MACT standards.

EPA's industrial boiler/process heater MACT was vacated on June 8, 2007.[12] EPA proposed a new Industrial Boiler/Process Heater MACT (Industrial Boiler MACT) rule to address the vacatur on June 4, 2010 (75 FR 32006) and issued a final rule on March 21, 2011 (76 FR 15608). On May 18, 2011 EPA stayed the Industrial Boiler MACT rule. 76 FR 28662 (May 18, 2011). The stay was vacated and remanded by the court on January 9, 2012.[13] EPA published a reconsideration and proposed amendment to the Industrial Boiler MACT rule for major sources on December 23, 2011, 76 FR 80598.

The MANE–VU States, including New York, included these controls in modeling for their regional haze SIPs. EPA accepts these emission reductions in the modeling for the following reasons. In December 2011, EPA proposed a new Industrial Boiler MACT rule to address the vacatur and intends to issue a final rule, giving New York sufficient time to assure the required controls are in place prior to the end of the first planning period on July 31, 2018. In the absence of an established MACT for boilers and process heaters, the statutory language in section 112(j) of the Act specifies a schedule for the incorporation of enforceable MACT-equivalent limits into the Title V operating permits of affected sources. Should circumstances warrant the need to rely on section 112(j) of the Act for industrial boilers, compliance with case-by-case MACT limits for industrial boilers would occur no later than January 2015, which is well before the 2018 RPGs for regional haze. The RHR also provides that any resulting differences between emissions projections and actual emissions reductions that may occur will be addressed during the five-year review prior to the next regional haze SIP. In addition, the expected reductions due to the original, vacated Industrial Boiler MACT rule were relatively small compared to the State's projected total SO_2 emissions in 2018 (i.e., one to two percent of the projected 2018 SO_X, $PM_{2.5}$ and coarse particulate matter (PM_{10}) inventory), and are not likely to affect any of MANE–VU's modeling conclusions. Thus, even if there is a need to address discrepancies between the projected emissions reductions from the now vacated Industrial Boiler MACT and actual reductions achieved by the replacement MACT, we do not expect that this would be significant enough to affect the adequacy of New York's Regional Haze SIP.

The MANE–VU modeling predicts that these measures will result in emission reductions that will produce improved visibility, meeting the reasonable progress goal for the first period ending in 2018, with the following measures: BART controls on all BART-eligible facilities, 90 percent or more control at the 19 New York units from the 167 EGU units identified by MANE–VU (or comparable alternative measures), and adoption of the lower limits on sulfur in fuel oil. New York would fulfill its share of reductions needed to meet the reasonable progress goal only when it submits its outstanding finalized permits in a timely manner which meet the emission limits in EPA's proposed FIP for those BART sources.

The MANE–VU States' goal was to reduce SO_2 emissions from the largest emission units in the eastern United States by 90 percent or, if it was infeasible to achieve that level of reduction, states could identify an alternative that could include reductions from other point sources. Of the 167 units identified by MANE–VU as having the highest SO_2 emissions in the eastern United States, 19 are in New York. New York met the MANE–VU States' goal of reducing emissions from its portion of the 167 EGU stacks by 90 percent using emission reductions from 19 EGUs and other point sources in order to meet that portion of New York's contribution to meeting the reasonable progress goals.

In addition, New York is evaluating other control measures, including energy efficiency, alternative clean fuels, and other measures to reduce SO_2 and NO_X emissions from all coal-burning facilities by 2018 and new source performance standards for wood combustion. New York State developed a rulemaking and regulatory program to control outdoor wood boilers to address a category of sources that is of concern to many states, especially those in the Northeast. In addition to the above measures, a number of measures intended to reduce the emissions of VOCs and nitrogen oxides are being implemented as a part of the ozone SIPs that have been submitted to EPA.

Federal measures and other control programs relied upon by New York include EPA's NO_X SIP Call; measures adopted for New York's 1-hour and 8-hour ozone attainment demonstration SIPs, Federal 2007 heavy duty diesel engine standards for on-road trucks and busses; Federal Tier 2 tailpipe controls for on-road vehicles; Federal large spark ignition and recreational vehicle controls; and EPA's non-road diesel rules. New York also relied on emission reductions from a Federal MACT that was vacated, but, as described above, the expected reductions in SO_2 and PM resulting from both the vacated Industrial Boiler MACT and the proposed revisions to the revised Industrial Boiler MACT rule are relatively small components of the New York inventory. EPA expects the revised Industrial Boiler MACT rule to be adopted by 2018, and therefore the vacatur of the original Industrial Boiler MACT rule should not negatively affect fulfillment of the RPGs across the northeast. In addition, the RHR requires that any resulting differences between emissions projections and actual

[12] *See NRDC* v. *EPA,* 489 F.3d 1250 (D.C. Cir. 2007).

[13] *Sierra* v. *Jackson,* Civil Action No. 11–1278 (PLF) (D.C. Cir. 2012).

emissions reductions that may occur will be addressed during the five-year review prior to the next 2018 Regional Haze SIP.

2. Modeling To Support the LTS and Determine Visibility Improvement for Uniform Rate of Progress

MANE–VU performed modeling for the regional haze LTS for the states, the District of Columbia and tribal nations located in Mid-Atlantic and Northeast portions of the United States. The modeling analysis is a complex technical evaluation that began with selection of the modeling system. MANE–VU used a modeling system described below and discussed in more detail in the TSD.

The EPA's Models-3/Community Multiscale Air Quality (CMAQ) version 4.5.1 is a photochemical grid model capable of addressing ozone, PM, visibility and acid deposition on a regional scale. CMAQ modeling of regional haze in the MANE–VU region for 2002 and 2018 was carried out on a grid of 12 x 12 kilometer (km) cells that covers the 11 MANE–VU States and the District of Columbia and states adjacent to them. This grid is nested within a larger national CMAQ modeling grid of 36 x 36 km grid cells that covers the continental United States, portions of Canada and Mexico, and portions of the Atlantic and Pacific Oceans along the east and west coasts. Selection of a representative period of meteorology is crucial for evaluating baseline air quality conditions and projecting future changes in air quality due to changes in emissions of visibility-impairing pollutants. MANE–VU conducted an in-depth analysis that resulted in the selection of the entire year of 2002 (January 1–December 31) as the best period of meteorology available for conducting the CMAQ modeling. The MANE–VU States' modeling was developed consistent with EPA guidance.[14]

MANE–VU examined the model performance of the regional modeling for the areas of interest before determining whether the CMAQ model results were suitable for use in the regional haze assessment of the LTS and for use in the modeling assessment. The modeling assessment predicts future levels of emissions and visibility impairment used to support the LTS and to compare predicted, modeled visibility levels with those on the uniform rate of progress. In keeping with the objective of the CMAQ modeling platform, the air quality model performance was evaluated using graphical and statistical assessments based on measured ozone, fine particles, and acid deposition from various monitoring networks and databases for the 2002 base year. MANE–VU used a diverse set of statistical parameters from the EPA's Modeling Guidance to stress and examine the model and modeling inputs. Once MANE–VU determined the model performance to be acceptable, MANE–VU used the model to assess the 2018 RPGs using the current and future year air quality modeling predictions, and compared the RPGs to the uniform rate of progress.

In accordance with 40 CFR 51.308(d)(3), the Class I area states provided supporting documentation for all required analyses used to determine the State's LTS. The technical analyses and modeling used to develop the glide path and to support the LTS are consistent with EPA's RHR, and interim and final EPA Modeling Guidance. EPA accepts the MANE–VU technical modeling to support the LTS and determine visibility improvement for the uniform rate of progress because the modeling system was chosen and used in accordance with EPA Modeling Guidance. EPA agrees with the MANE–VU model performance procedures and results, and that the CMAQ is an appropriate tool for the regional haze assessments for the Class I areas in MANE–VU and the states' LTS and for New York's Regional Haze SIP.

3. Relative Contributions of Pollutants to Visibility Impairment

An important step toward identifying reasonable progress measures is to identify the key pollutants contributing to visibility impairment at each Class I area. To understand the relative benefit of further reducing emissions from different pollutants, MANE–VU developed emission sensitivity model runs using CMAQ to evaluate visibility and air quality impacts from various groups of emissions and pollutant scenarios in the Class I areas on the 20 percent worst visibility days.

MANE–VU's contribution assessment demonstrated that sulfate is the major contributor to $PM_{2.5}$ mass and visibility impairment at Class I areas in the Northeast and Mid-Atlantic Region. Sulfate particles commonly account for 50 to over 80 percent of particle-related light extinction at northeastern Class I areas. For example, for the Brigantine National Wildlife Refuge Class I area, on the 20 percent worst visibility days in 2000–2004, sulfate accounted for 66 percent of the particles responsible for light extinction. After sulfate, organic carbon (OC) consistently accounts for the next largest fraction of light extinction due to particles. Organic carbon accounted for 13 percent of light extinction on the 20 percent worst visibility days for Brigantine, followed by nitrate that accounts for 9 percent of light extinction. These findings are true, in general, for Class I areas across MANE–VU.

The emissions sensitivity analyses conducted by MANE–VU predict that reductions in SO_2 emissions from EGU and non-EGU industrial point sources will result in the greatest improvements in visibility in the Class I areas in the MANE–VU region, more than any other visibility-impairing pollutant. As a result of the dominant role of sulfate in the formation of regional haze in the Northeast and Mid-Atlantic Region, MANE–VU concluded that an effective emissions management approach should rely heavily on broad-based regional SO_2 control efforts in the eastern United States for the first planning period. EPA proposes to accept this conclusion as a reasonable strategy in the eastern United States where reductions in SO_2 emissions will result in the greatest improvements in visibility.

4. Reasonable Progress Goals

Since New York does not have a Class I area, it is not required to establish RPGs. However, emissions from New York that contribute to Regional Haze have been identified as influencing the visibility impairment at a number of Class I areas in the MANE–VU States. Particularly, New Hampshire and New Jersey have notified New York of their impact on Class I areas in their states, specifically, the Lye Brook Wilderness Area and the Brigantine National Wildlife Refuge, respectively. New York, as a MANE–VU state, participated in consultations to discuss the reasonable progress goals being considered by MANE–VU States for the affected Class I area. As a result, to meet the reasonable progress goals and the long-term goal of no anthropogenic obstruction to visibility, the MANE–VU States agreed to implement the following measures, or substitute a similar quantity of emission reductions in their place: Timely implementation of BART requirements; a 90 percent reduction in SO_2 emissions from each of the EGU stacks identified by MANE–VU

[14] EPA's *Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze*, located at *http://www.epa.gov/scram001/guidance/guide/final-03-pm-rh-guidance.pdf, (EPA-454/B-07-002), April 2007, and EPA document, Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations*, located at *http://www.epa.gov/ttnchie1/eidocs/eiguid/index.html, EPA-454/R-05-001, August 2005, updated November 2005 (''EPA's Modeling Guidance'').*

comprising a total of 167 stacks (19 are located in New York); adoption of a low sulfur fuel oil strategy; and continued evaluation of other control measures to reduce SO_2 and NO_X emissions.

a. Application of Modeling To Demonstrate Reasonable Progress

The modeling that supported these analyses of how to demonstrate reasonable progress predicted that these emission control regulations would result in improved visibility which would meet the reasonable progress goals at MANE–VU Class I areas by 2018. At the time of MANE–VU modeling, some of the other states with sources potentially impacting visibility in the Class I areas in the MANE–VU domain had not yet made final control determinations for BART, and thus, these controls are not included in the modeling prepared by MANE–VU and used by Class I area states to determine RPGs. At that time, not all of the emission reductions from New York's BART-eligible sources were included in the modeling. Any controls resulting from those determinations will provide additional emissions reductions and resulting visibility improvement, and improve the likelihood that RPGs will be met in the Class I areas in the northeast. This modeling demonstrates that the 2018 base control scenario provides for an improvement in visibility equal to the uniform rate of progress for the Class I areas in MANE–VU for the most impaired days over the period of the implementation plan and ensures no degradation in visibility for the least impaired days over the same period.

The modeling that supported the analysis of these RPGs is consistent with EPA guidance. The Regional Haze Rules specify that a state may not adopt a RPG that represents less visibility improvement than is expected to result from other CAA requirements during the implementation period. 40 CFR 51.308(d)(1)(vi). Therefore, states subject to CAIR with Class I areas and that are in MANE–VU, took into account emission reductions anticipated from CAIR in determining their 2018 RPGs. MANE–VU approximated the impact of CAIR by reducing emissions from 167 EGUs by ninety percent. But this reduction was larger, in total tons of emissions reduced, than the reductions expected from CAIR, so MANE–VU added emissions across the modeling domain to more closely approximate the emission reductions from CAIR. These 'add back' emissions, kept the MANE–VU States' modeling from overestimating the improvement in visibility from those states that use EPA transport reduction rules as their response to MANE–VU's ''ask'' of ninety percent reductions from the 167 EGUs in the eastern United States.

As discussed in Section I of this action, EPA anticipates that the CSAPR will result in similar or better improvements in visibility than those predicted from CAIR. Because the CSAPR was recently finalized, EPA does not know at this time how it will affect any individual Class I area and cannot accurately model future conditions based on its implementation. However, by the time New York is required to undertake its five year progress review, it is likely that the impact of the CSAPR's contribution to visibility impairment in Class I areas in MANE–VU States will be assessed. The reductions at New York's 19 EGU stacks, combined with additional reductions described later in this section, exceed 90 percent and are greater than the anticipated reductions from CAIR or CSAPR. Thus it is likely New York will have contributed its share of reductions that were modeled to produce the RPGs at Class I areas impacted by New York. However, New York must still submit its finalized permits in a timely manner, at the emission limits that EPA has proposed to approve in our FIP or EPA implements the FIP in place of New York's BART limits. If, for a particular Class I area, these reductions do not provide similar or greater benefits than CAIR and meeting the RPGs at one of its Class I areas is in jeopardy, the state will be required to address this circumstance in its five year review.

The RPGs for the Class I areas in states affected by emissions from New York are based on modeled projections of future conditions that were developed using the best available information at the time the analysis was completed. While MANE–VU's emission inventory, used for modeling, included estimates of future emission growth, projections can change as additional information regarding future conditions becomes available. It would be both impractical and resource-intensive to require a state to continually adjust the RPG every time an event affecting these future projections changed. At the same time, EPA established a requirement for a five-year, midcourse review and, if necessary, correction of the states' regional haze plans. See 40 CFR 52.308(g). New York committed to the midcourse review and submitting revisions to the regional haze plan where necessary.

b. How New York's Plan Addresses Its Share of Reductions Toward Meeting the Reasonable Progress Goal

Altogether, these emission controls—a 90 percent reduction in SO_2 emissions from EGUs, emission reductions from BART-eligible sources and a low sulfur fuel oil strategy—are reasonable measures for the reduction strategy required by EPA's RHR. EPA agrees that emission reductions from these measures or their equivalent, including when New York's BART program is implemented or when EPA's FIP alternative is in place, will provide the emission reductions New York needs to meet its share of the improvements in visibility needed to meet the RPG goals to assist visibility improvement at other Class I areas affected by New York's emissions.

To address the MANE–VU ''ask'', New York needs to reduce emissions at its 19 major source stacks by 90 percent or more or find equivalent emission reductions. Based on EPA's tabulation of emission reductions from these sources, the total reduction in emissions is less than 90 percent. In addition, New York has equivalent emission reductions from two non-EGU sources beyond the planned BART controls included in MANE–VU's modeling. These two sources, Kodak and LaFarge Building Materials, were modeled in the MANE–VU's modeling with reduced emissions based on an initial BART analysis. However, their emissions will be reduced further based on the recent New York proposed BART determinations for these facilities which will result in the shutdown of portions of these facilities that were to be subject to BART. These tons of sulfur emissions beyond the non-EGU BART modeled by MANE–VU fulfill the goal of 90 percent reduction from New York's share of the 167 major source stacks.

As explained in more detail in the TSD, New York's share of the 90 percent reduction from the 167 major emission stacks in the MANE–VU modeling is 90 percent of 132,959 tons per year of sulfur emissions modeled in the 2002 base case, or 13,296 tons per year.

As shown in the TSD, EPA calculated the remaining emissions from New York's 19 major EGUs after application of BART to total 22,406 tons per year of SO_2; that is a reduction of 83 percent or 9,110 tons per year short of the 90 percent reduction target. However, this remaining tonnage is more than made up for by the reduction of 11,195 tons of SO_2 beyond the modeled BART controls at the two non-EGU facilities discussed above.

Thus, New York State's emission reductions from its 19 EGUs and the additional reductions beyond BART from the two non-EGU sources are sufficient to exceed its share of the emission reductions in the MANE–VU modeling needed to meet the 90 percent emission reduction target for the MANE–VU ''ask''.

With respect to New York's low sulfur fuel strategy, this section describes how these programs fulfill the emission reductions projected in the modeling used to demonstrate reasonable progress by the end of the first period in 2018.

According to New York's Regional Haze SIP, the MANE–VU modeling projected a reduction of 71,759 ton per year resulting from a low sulfur fuel strategy in New York. New York enacted legislation to limit sulfur in number 2 oil to 15 ppm by 2012, providing a projected SO_2 emission reduction of 54,090 tons per year. Based on this information, to meet the MANE–VU ''ask'' New York would have to obtain additional emission reductions of 17,699 tons per year. New York anticipates expanding the low sulfur fuel limits to other types of oil to meet the specifications of the MANE–VU program. However, if New York does not implement this expanded program by the time EPA takes final action on this Haze SIP, New York's emissions will be 17,699 tons greater than the emissions modeled by MANE–VU which showed achievement of the 2018 progress goal.

While New York will obtain additional emission reductions through expansion of their low sulfur fuel strategy, EPA notes that MANE–VU added back into the modeling inventory 23,100 tons per year in New York to better approximate the likely reductions from EPA's proposed transport rules. These added back emissions of 23,100 tons per year of SO_2 are more than the needed 17,699 tons per year from New York's expanded Sulfur in Fuel rule.

Therefore, while New York did not implement all of the parts of the programs included in the MANE–VU 'ask', the overall reduction of emissions in New York State will achieve all of the emission reductions in the MANE–VU set of reasonable measures, and insure that New York emission reductions will meet the amount of emission reductions needed for its contribution toward attaining the reasonable progress goal in the period ending in 2018.

In summary, New York used the MANE–VU analysis which defined the reasonable progress goals, and reasonable measures needed to achieve emission reductions to meet these goals. The reasonable measures analyses considered the cost of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts, and the remaining useful life of the existing sources subject to such requirements. This led to the MANE–VU States' agreement to use a 90 percent reduction in EGU stacks, low sulfur fuel and BART as reasonable controls, or to determine equivalent amounts of reductions to reach the goals. EPA notes that letters from states with Class I areas affected by New York's emissions (New Jersey and New Hampshire), did not ask for any additional controls beyond those specified in the MANE–VU analyses. These MANE–VU controls, plus other existing measures and the input from the MANE–VU consultations, were modeled to project the 2018 visibility levels. These projections were used in setting the 2018 Reasonable Progress Goals. For the Class I areas in MANE–VU, these projections meet the Uniform Rate of Progress, an analytical requirement in the EPA's RHR. As described above, EPA proposes to concur that New York's emission reductions will provide its share of the reductions needed to achieve the RPGs at Class I areas in the Northeast United States, if New York submits its final permits for its BART sources as SIP revisions, matching the emission limits in EPA's FIP alternatives for New York's permits.

5. Section 19–0325 of the Environmental Conservation Law—Low Sulfur Fuel Oil Strategy

The MANE–VU low sulfur fuel oil strategy includes a reduction of distillate oil to 0.05% sulfur by weight (500 parts per million (ppm)) by no later than 2012; #4 residual oil to 0.25% sulfur by weight no later than 2012; #6 residual oil to 0.3–0.5% sulfur by weight no later than 2012; and to further reduce the sulfur content of distillate oil to 15 ppm by 2016.

New York satisfied a commitment included in the Regional Haze SIP through legislation. New York amended the Environmental Conservation Law (ECL) to require a reduction in sulfur for heating oil used in New York State, which will aid in reducing sulfates that cause decreased visibility. Specifically, Bill Number S1145C amends the ECL by adding a new section 19–0325 to require that on or after July 1, 2012, all number two heating oil sold for use in residential, commercial, or industrial heating within New York State shall not have a sulfur content greater than 15 ppm. This requirement was established through state legislation rather than rulemaking and is presently in effect without a need for rule promulgation.

In addition, New York is planning to revise 6 NYCRR Subpart 225–1, Fuel Composition and Use—Sulfur Limitations to lower current distillate and residual oil sulfur-in-fuel limitations. ECL section 19–0325 establishes the limits for heating oil throughout the State beginning on July 1, 2012. New York is including these provisions, and plans to establish additional more stringent requirements in Subpart 225–1 for the remainder of fuel oils. By reducing the sulfur in the fuel oils, sulfur oxide emissions and particulate emissions will be reduced which will improve visibility and help to attain the PM 2.5 national ambient air quality standard. EPA notes that existing provisions of Subpart 225–1 are incorporated in the current SIP, and Subpart 225–1 contains provisions regarding enforcement and compliance, recordkeeping, emissions and fuel monitoring, reporting, recordkeeping, sampling and analysis.

Major SO_2 emission reductions are obtained as a result of the legislation being implemented. These reductions are occurring in 2012, well before the 2016 requirement in MANE–VU's ''ask.'' As discussed above, New York expects to achieve the remaining SO_2 reductions upon amending Subpart 225–1 to establish the additional more stringent fuel oil requirements. In the meantime, EPA proposes to determine New York's low sulfur fuel oil strategy in combination with the other planned reductions will provide the necessary reductions from New York for other Class I areas to meet their respective RPGs, as described above.

6. BART

BART is an element of New York's LTS, as well as a requirement to evaluate controls for older sources that affect Class I areas. The BART regional haze requirement consists of three steps: (a) Identification of all the BART eligible sources; (b) an assessment of whether the BART eligible sources are subject to BART; and (c) the determination of the BART controls.

a. BART-Eligible Sources in New York

The first component of a BART evaluation is to identify all the BART eligible sources. In its March 2010 SIP submittal, New York preliminarily identified twenty sources as BART eligible. Subsequently, after further review, New York determined that two sources, the Poletti Power Project (Astoria, NY) and the Port Jefferson Energy Center (Port Jefferson, NY) were not BART eligible; and New York

further determined that certain sources at Con Edison's Ravenswood Steam Plant were BART eligible. The nineteen sources in Table 3 were identified by New York either in its March 2010 Regional Haze SIP submittal or in its proposed permits and met the following criteria to be classified as BART eligible:

- One or more emissions units at the facility are within one of the 26 categories listed in the BART Guidelines (70 FR 39158–39159);
- The emission unit(s) was in existence on August 7, 1977 and begun operation after August 6, 1962;
- Potential emissions of SO_2, NO_X, and PM_{10} from subject units are 250 tons or more per year.

These criteria are from section 169A(b)(2)(A) of the Act, codified in 40 CFR Part 51, Appendix Y.

TABLE 3—BART-ELIGIBLE FACILITIES IDENTIFIED BY THE STATE OF NEW YORK

Facilities	Units	Pollutants	Location (county)	Permit I.D
National Grid EF Barrett Power Station	Boiler 2	NO_X, SO_2, PM	Nassau	1–2820–00553
National Grid Northport Power Station	Boilers 1,2,3,4	NO_X, SO_2, PM	Suffolk	1–4726–00130
Con Ed 59th Street Station	Steam Boilers 114, 115	NO_X, SO_2, PM	New York	2–6202–00032
NRG Arthur Kill GS	Boiler 30	NO_X, SO_2, PM	Richmond	2–6403–00014
TC Ravenswood LLC Ravenswood GS	Boilers 10, 20, 30	NO_X, SO_2, PM	Queens	2–6304–00024
Trans Canada/Con Ed Ravenswood Steam Plant.	Boiler 2	NO_X, SO_2, PM	Queens	2–6304–01378
GenOn (Miriant) Bowline GS	Boilers 1 and 2	NO_X, SO_2, PM	Rockland	3–3922–00003
Dynegy Danskammer GS	Boiler 4	NO_X, SO_2, PM	Orange	3–3346–00011
Dynegy Roseton GS	Boilers 1 and 2	NO_X, SO_2, PM	Orange	3–3346–00075
Holcim (US) Inc Catskill Plant	Wet Process Kiln (cement plant).	NO_X, SO_2, PM	Green	4–1926–00021
Lafarge Building Materials Ravena Plant	Wet Process Kilns 1 and 2 (cement plant).	NO_X, SO_2, PM	Albany	4–0124–00001
Owens Corning Insulating Systems, LLC—Delmar Plant.	Emission Units EU2, EU3, EU12, EU13, EU14.	NO_X, SO_2, PM	Albany	4–0122–00004
International Paper Ticonderoga Mill	Power Boiler, Recovery Boiler.	NO_X, SO_2, PM	Essex	5–1548–00008
Lehigh Northeast Cement	Process Kiln (cement plant).	NO_X, SO_2, PM	Warren	5–5205–00013
Alcoa Massena Operations West Plant	Potline, Baking Furnace, Package Boilers.	NO_X, SO_2, PM	St. Lawrence	6–4058–00003
NRG Oswego Harbor Power	Units 5, 6	NO_X, SO_2, PM	Oswego	7–3512–00030
GDF Suez Syracuse Energy Corp.	Boiler 1	NO_X, SO_2, PM	Onondaga	7–3132–00052
Eastman Kodak/Duke Energy GS Kodak Park Division.	Boilers 41, 42, 43	NO_X, SO_2, PM	Monroe	8–2614–00205
Jamestown BPU Samuel A Carlson GS	Boiler 12	NO_X, SO_2, PM	Chautauqua	9–0608–00053

The BART Guidelines recommend addressing SO_2, NO_X, and PM_{10} as visibility-impairment pollutants. The Guidelines note that states can decide whether to evaluate VOC or ammonia emissions. New York did not develop additional strategies for VOC or ammonia emissions in its SIP. EPA proposes to agree with New York's determination because of the relative uncertainty to estimate emissions and model VOC and ammonia effects on visibility, and because New York is aggressively addressing VOCs through its approved ozone SIPs. In summary, EPA agrees with New York's determination that SO_2, NO_X, PM_{10}, and $PM_{2.5}$ are the pollutants reasonably anticipated to contribute to visibility impairment to target under BART.

The second component of the BART evaluation is to identify those BART eligible sources that may reasonably be anticipated to cause or contribute to visibility impairment at any Class I area. As discussed in the BART guidelines, a state may choose to consider all BART eligible sources to be subject to BART (70 FR 39.161). The MANE–VU Board decided in June 2004 that because of the collective importance of BART sources, BART determinations should be made by the MANE–VU States for each BART eligible source. New York followed this approach by identifying each of its BART eligible sources as subject to BART, (see Table 3 above).

b. BART Evaluations for Sources Identified as BART by New York

The final component of a BART evaluation is making BART determinations for all BART subject sources. In making BART determinations, section 169A(g)(2) of the Act requires that states consider the following factors: (1) The costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility that may reasonably be anticipated to result from the use of such technology. However, a source that implements the maximum feasible level of control for its emissions has met the BART requirements, and no further analysis is needed. Conversely, a source that limits its emissions via an enforceable permit limit no longer needs to be subject to BART review.

New York properly determined that the nineteen facilities listed in Table 3 are subject to BART review. The following summarizes New York's BART analyses and EPA's evaluation of New York's analysis for each of the nineteen BART facilities. For further details the reader is referred to the owner's BART analyses and New York's BART determinations located in the docket for this proposal at EPA's Web site at *www.regulations.gov.* References below to New York's draft Title V or draft Air Facility permit means that the State has issued the permit for public comment over a 30-day period.

BART Eligible Units That Will Cap Out of BART—One Facility

Owens Corning Insulating Systems, LLC

Owens Corning is reducing its annual combustion emissions limit to bring the five BART units'(Emission Units EU2 (DM1 Oxy Fuel Furnace), EU3 (DM1Forming/Cooling Unit), EU12 (DM2 Oxy Fuel Furnace), EU13 (DM2 Mixing Chamber), and EU14 (DM2 Smoke Stripper/Cooling Section)) cumulative potential to emit each pollutant (NO_X, SO_2, and PM) to less than 250 tons per year (tpy) by the effective date of the Title V permit, which New York expects to be by mid -2012. As a result, none of the three pollutants will exceed the BART threshold and Owens Corning will not be subject to further BART analyses. EPA proposes approval of this BART evaluation since it conforms to EPA Guidance that allows a source to cap out of BART by reducing emissions from BART eligible sources to below the BART threshold of 250 tpy. The implementation date for the cap out, emission limits, monitoring, record keeping and reporting requirements will be included in New York's final Title V permit.

BART Eligible Units That Will Permanently Shut Down—Four Facilities

Owners of BART eligible units at four of the nineteen facilities listed in Table 3 above have decided to shut down those units rather than install BART to control emissions of NO_X, SO_2, and PM. The four facilities include Lafarge Building Materials Inc, Syracuse Energy Corporation, Samuel A. Carlson Generating Station, and Holcim (US) Inc—Catskill Plant. New York will be including the compliance shutdown dates in either final State Facility permits or final Title V permits and submitting them to EPA for approval as a SIP revision by mid-2012, after the opportunity for public comment. These permit conditions become federally enforceable when the State submits the BART portions of the permits to EPA for approval as a supplement to the RH SIP. The Lafarge facility is under an existing federal consent decree and the shutdown date for the BART eligible units is therefore already federally enforceable. Therefore EPA proposes approval of the permanent shut down of the BART eligible units for the purpose of meeting BART at the four facilities discussed immediately below. Should New York not submit the final Title V permit for each applicable facility (except the Lafarge facility) in a timely manner, EPA proposes that the aforementioned BART requirements be considered as federal requirements as part of a FIP.

Lafarge Building Materials, Inc

Lafarge Building Materials Inc owns a facility that manufactures Portland cement that is located near Ravena, NY. New York determined that the two existing long wet kilns, kilns 1 and 2 (Emission Unit 0–41000; Emission sources 4KLN1 and 4KLN2, respectively), are BART eligible. In January 2010, Lafarge entered into a Consent Decree with EPA [15] which contains a compliance schedule for the Ravena Plant to either modernize the existing plant, retrofit the existing kilns with NO_X and SO_2 controls, or retire the kilns. In a letter to New York dated September 30, 2011, Lafarge informed the State of its intent to modernize the existing plant by replacing the two existing long wet kilns with a new short dry kiln and pre-heater pre-calciner tower in compliance with the consent decree. In accordance with the consent decree, kilns 1 and 2 are to be retired within 180 days after commencement of operation of the new kiln; and the latest date to start operation of the new kiln is January 1, 2015. Therefore, the latest date that kilns 1 and 2 can be in operation is June 30, 2015. Therefore, EPA is proposing to approve New York's BART determination that Lafarge's two existing long wet kilns, kilns 1 and 2, will permanently shut down in accordance with conditions set forth in the existing federally enforceable consent decree announced in January 2010. Should the existing federally enforceable consent decree be revised under agreement by all parties, New York must submit any revisions to EPA as a SIP revision for the purpose of complying with BART.

Syracuse Energy Corporation

The Syracuse Energy Corporation (SEC), located in Geddes, NY, owns and operates a coal-fired boiler (Unit 1) with a heat input greater than 250 million BTUs per hour (mm BTU/hr) that is BART eligible. In a letter to New York dated September 22, 2010, SEC stated that it would either accept NESCAUM/New York's visibility modeling results if they showed an insignificant impact or otherwise shut down the boiler by January 1, 2014, the BART compliance date established by 6 NYCRR Part 249, NY's BART regulation. New York subsequently decided that SEC's Unit 1 was BART eligible and accepted SEC's decision to permanently shut down Unit 1. The shutdown compliance schedule for Unit 1 is included in the facility's draft Title V permit. EPA expects to receive the final Title V permit from New York as a SIP revision by mid-2012. Therefore, EPA is proposing to approve New York's decision that SEC's Unit 1 will permanently shut down by January 1, 2014 and is exempt from implementing any BART controls.

Samuel A. Carlson Generating Station

The Samuel A. Carlson (SAC) Generating Station is a municipal electric power generating plant owned and operated by the Jamestown Board of Public Utilities (JBPU). The facility operates three coal fired boilers (Boilers #9, #10 and #12) with a combined output of 49 megawatts. New York has determined that Boiler 12 is BART eligible and JBPU has decided to permanently shut down Boiler 12 by January 1, 2014 in order to be exempt from the BART requirements for that unit. This shut down compliance date for Boiler 12 is included in the New York's final Title V permit. Therefore, EPA is proposing to approve New York's decision that SAC's Unit 12 will permanently shut down by January 1, 2014 and is exempt from implementing any BART controls.

Holcim (US) Inc—Catskill Plant

The Holcim (US)—Catskill Plant owns a Portland cement and quarry operation located in Catskill, NY. New York has determined that Emission Unit U–00K18, Emission Source 0KILN is BART eligible. This BART eligible source includes a wet process kiln along with a clinker cooler and finish mill air separators. The wet process kiln accounts for virtually all of the gaseous emissions (e.g., NO_X and SO_2) from the plant and the majority of the plant's PM emissions. The clinker cooler and finish mill air separators are primarily sources of PM emissions. In an email dated January 31, 2012, New York informed EPA that the owner has decided to permanently shut down the BART eligible units and will surrender their permits. New York has informed EPA that the wet process kiln has not been in operation since October 2010 and the Title V permit has expired, effective February 13, 2012. Therefore, EPA is proposing to approve New York's decision that Holcim's wet kiln and clinker cooler are now permanently shutdown.

[15] On January 21, 2010, EPA announced that the U.S. filed Clean Air Act settlements to reduce air emissions from container glass and Portland cement plants throughout the country. (Case 3:10–cv–000440JPG–CJP) This settlement includes Portland cement plants owned by Lafarge Company, including one located at Ravena, NY that has two wet kilns that New York has identified as BART-eligible.

Fourteen Facilities Will Implement BART Requirements

Con Ed—59th Street Station

This facility, owned by Consolidated Edison Company of New York (Con Ed), operates two very large boilers,[16] Boilers 114 (Emission Unit 5–90020; Emission source 00114) and 115 (Emission Unit 5–90020; Emission source 00115), as well as other boilers and a combustion turbine at its 59th Street Station in New York City. New York has determined that Boilers 114 and 115 are both BART eligible units. Boilers 114 and 115 are each fixed-tangential units with a design maximum heat input capacity of 805 mm BTU/hr. Both boilers combust (primarily) low sulfur (0.30 percent sulfur by weight) residual oil (Number 6 fuel oil), with natural gas used for ignition. New York indicates that these two boilers are used to generate steam only and do not generate electricity but follow a steam load which results in limited operation and significant unused capacity. Con Ed's BART submittal indicates that the average annual capacity for the years 2007–2009 is about 55%.

Con Ed submitted a BART determination to New York and the State agreed with the owner's recommendations that the current operations constitute BART. For control of SO_2 emissions, New York is proposing that the current use of low sulfur (0.30% by weight) No. 6 fuel oil represents BART.

For control of NO_X emissions, New York reviewed Con Ed's BART analysis that considered seven different controls (two of which are technically infeasible), including Selective Catalytic Reduction (SCR), and the State is proposing that the current use of off-stoichiometric firing with an emission limit of 0.32 lb/mm BTU (on a 30-day rolling average), when combusting either No. 6 fuel oil or natural gas, represents BART for each boiler. New York's BART analysis for NO_X concluded that each of the technically feasible control options is not cost effective (in the range of $8,717 to $31,825) because each boiler typically operates at only 55% capacity. New York also reports that Con Ed demonstrated that visibility improvement was very low (0.04 dv maximum cumulative at 7 Class I areas) when evaluating the NO_X control option (''water injection'' option) that was the closest to, but still higher than, New York's $5,500/ton cost effectiveness threshold.

For control of PM emissions, New York reviewed Con Ed's BART analysis that considered three potential add-on control technologies but Con Ed determined, and New York agreed, that these technologies do not appear to be demonstrated in practice for a utility boiler that combusts oil as the primary fuel. New York has determined that BART control of PM emissions is the continued use of current operations that includes good combustion practices and the use of low sulfur fuel, with an emission limit of 0.10 lb/mm BTU (by stack tests) representing BART for each boiler. The aforementioned BART requirements for each boiler are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York finalized the draft Title V permit on March 20, 2012 and expects to submit it as a SIP revision for EPA approval by mid-2012.

Con Ed—Ravenswood Steam Plant

This facility, owned by Consolidated Edison Company of New York (Con Ed), operates one very large boiler, Boiler 2 (Emission Source ESAH2), as well as three other boilers at its Ravenswood Steam Plant in Queens County, a borough of New York City. New York has determined that Boiler 2 is a BART eligible unit. Boiler 2 is a front-wall fired unit with a design maximum heat input capacity of 424 mm BTU/hr. Boiler 2 combusts (primarily) low sulfur (0.30 percent sulfur by weight) residual oil (Number 6 fuel oil), with natural gas used for ignition. New York indicates that Boiler 2 is used to generate steam only and does not produce electricity but follows a steam load which results in limited operation and significant unused capacity. Con Ed's BART submittal indicates that the average annual capacity for the years 2007–2009 is about 21%.

Con Ed submitted a BART determination to New York and the State agreed with the owner's recommendations that the current operations constitute BART. For control of SO_2 emissions, New York is proposing that the current use of low sulfur (0.30% by weight) No. 6 fuel oil represents BART.

For control of NO_X emissions, New York reviewed Con Ed's BART analysis that considered seven control options (two of which are technically infeasible), including Selective Catalytic Reduction (SCR), and the State is proposing that the current operation with good combustion/operating practices with an emission limit of 0.32 lb/mm BTU (on a 30-day rolling average), when combusting either No. 6 fuel oil or natural gas, represents BART for Boiler 2. New York's BART analysis for NO_X concluded that each of the technically feasible control options is not cost effective because each boiler operates at a low annual capacity. New York also reports that Con Ed demonstrated that visibility improvement was very low (0.01 to 0.02 dv) when assuming a NO_X control reduction of 30%.

For control of PM emissions, New York reviewed Con Ed's BART analysis that considered three potential add-on control technologies but Con Ed determined, and New York agreed, that these technologies are not demonstrated in practice for a utility boiler that combusts oil as the primary fuel. New York has determined that BART control of PM emissions is the continued use of current operations that includes good combustion practices and the use of low sulfur fuel, with an emission limit of 0.10 lb/mm BTU representing BART for Boiler 2.

The aforementioned BART requirements for Boiler 2 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York finalized the draft Title V permit on March 20, 2012 and expects to submit it as a SIP revision for EPA approval by mid-2012.

Trans Canada (TC) Ravenswood LLC—Ravenswood Generating Station

This facility, owned by TC Ravenswood LLC, operates three very large boilers, Boilers 10 (Emission Unit U–00010; Emission Source ES10H/ES10R), 20 (Emission Unit U–00020; Emission Source ES20H/ES20R), and 30 (Emission Unit U–00030; Emission Source ES30H/ES30R), as well as combustion turbines at its Ravenswood Generating Station in Queens County, a borough of New York City. New York has determined that Boilers 10, 20 and 30 are each BART eligible units. Each unit combusts primarily natural gas but low sulfur No. 6 fuel oil is occasionally combusted in order to maintain system reliability whenever natural gas is unavailable. These units have maximum heat input rates of 4204 mm BTU/hr, 4171 mm BTU/hr, and 9370 mm BTU/hr, respectively and have a combined nominal rating of 1752 MW. For controlling air emissions, all three units are equipped with close coupled over fire air (CCOFA) systems and low NO_X burners (LNBs) for NO_X control while

[16] At 6 NYCRR Part 200—General Provisions, New York defines a very large boiler as ''a boiler with a maximum heat input capacity greater than 250 million British thermal units (BTU) per hour,'' i.e. 250 mm BTU/hr.

SO_2 emissions are limited by the use of low sulfur (0.30%) fuel oil.

TC submitted a BART determination to New York and the State agreed with the owner's recommendations. For control of SO_2 emissions, TC proposed, and New York agreed, that the current permitted condition that limits the maximum sulfur content of the fuel oil to 0.30% represents BART for each of the three BART eligible boilers.

For control of NO_X emissions, New York reviewed TC's BART analysis that considered five control options, including SCR, and the State is proposing that the current operation using natural gas as the primary fuel with an emission limit of 0.15 lb/mm BTU (on a 30-day rolling average) represents BART. TC conducted a BART analysis for the 100% oil-firing case since the owners considered this condition as the highest emission case for all haze-causing emissions. The BART control option for NO_X having the lowest emission limit (reduction from 0.24 lb/mm BTU to 0.15 lb/mm BTU) as well as being technically and economically feasible is the addition of both separated over fire air (SOFA) and selective non-catalytic reduction (SNCR). However, since the three BART units combust primarily natural gas and combust low sulfur fuel oil primarily for reliability purposes, it is unlikely that this control option would be cost effective for the few periods when only fuel oil is combusted. Therefore BART is determined to be the continued operational mode of primarily combusting natural gas. EPA's Clean Air Markets Division reports that average NO_X emissions for the five year period from 2006–2010 for natural gas firing varies from 0.06 to 0.09 lb/mm BTU for these boilers.

For control of PM emissions, New York reviewed TC's BART analysis that considered three potential add-on technologies and one operational change switching to low sulfur distillate fuel oil but TC determined, and New York agreed, that these add-on technologies and operational change are either technically or economically infeasible. New York has determined that current operations represent BART for PM on the three BART eligible boilers with an emission limit of 0.10 lb/mm BTU.

The aforementioned BART requirements for Boilers 10, 20, and 30 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York finalized the draft Title V permit on April 6, 2012 and expects to submit it as a SIP revision for EPA approval by mid-2012.

National Grid—EF Barrett Power Station

This facility, owned by National Grid Generation LLC, operates one very large boiler, Boiler 2 (Emission Unit U–00002; Emission Source ES002), as well as another boiler and several combustion turbines at its EF Barrett Power Station located in the town of Hempstead in Nassau County. New York has determined that Boiler 2 is a BART eligible unit. Boiler 2 is a tangentially fired unit rated at a maximum heat input of 1825 mm BTU/hr and has a generating capacity of 185 MW. Boiler 2 is capable of combusting natural gas or oil, though it fires natural gas almost exclusively, with low sulfur oil serving as a backup in case of gas shortages. National Grid reports that this boiler is no longer a base loaded unit but rather a load following unit which can cycle from minimum load to full load and back to minimum load daily.

National Grid submitted a BART determination to New York and the State agreed with the owner's recommendations that the current operations constitute BART. For control of SO_2 emissions, New York is proposing that the current use of low sulfur (0.37%) fuel oil represents BART. EPA requested that the State evaluate a BART option to limit the amount of fuel oil combusted but New York indicated that National Grid is unable to accept a permit condition limiting the amount of fuel oil burned, which would limit sulfur emissions, because it would detract from the operational flexibility needed to meet the requirements of The New York State Reliability Council reliability rule I–R5 (the ''minimum oil burn rule'') which promotes reliability of the electrical grid within the local New York City area.

For control of NO_X emissions, New York reviewed National Grid's BART analysis that considered the addition of SCR and SNCR controls beyond the existing control technology of separated over fire air (SOFA) that was installed in the mid-1990s. National Grid determined that SCR is economically infeasible and SNCR is economically and technically infeasible due to the load swinging operation of the boiler and projected low operating capacity factor of 25%. New York also indicated low NO_X burners were less effective than SOFA. Therefore, the State is proposing that SOFA control technology with emission limits of 0.10 lb/mm BTU when firing natural gas and 0.20 lb/mm BTU when firing low sulfur fuel oil, both on a 24-hour average, represent BART for Boiler 2.

For control of PM emissions, National Grid evaluated two control technologies and determined that both were economically infeasible. Since natural gas is the primary fuel combusted in this boiler, New York agreed with this BART analysis and is proposing that current operation (no controls), with an emission limit of 0.10 lb/mm BTU represents BART for Boiler 2. For this boiler, New York indicates that PM from ''unspeciated PM_{10}'' emissions is approximately 0.013 lb/mm BTU.

The aforementioned BART requirements for Boiler 2 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York finalized the draft Title V permit on March 27, 2012 and expects to submit it as a SIP revision for EPA approval by mid-2012.

National Grid—Northport Power Station

This facility, owned by National Grid Generation LLC, operates four very large boiler, Boilers 1 (Emission Unit U–00001; Emission Source ES001), 2 (Emission Unit U–00002; Emission Source ES003), 3 (Emission Unit U–00003; Emission Source ES005), and 4 (Emission Unit U–00004; Emission Source ES007), as well as a combustion turbine at its Northport Power Station located in the town of Northport in Suffolk County. New York has determined that Boilers 1 through 4 are BART eligible units. Each of the four BART eligible boilers are identical in design: each is a tangentially fired unit rated at a maximum heat input of 3695 mm BTU/hr and each has a generating capacity of 385 MW. Each boiler is capable of combusting natural gas or oil, although these units primarily combust natural gas with backup oil firing capability. National Grid reports that these boilers are no longer base loaded units but rather load following units which can cycle from minimum load to full load and back to minimum load daily.

National Grid submitted a BART determination to New York and the State agreed with the owner's recommendations. For control of SO_2 emissions New York is proposing that BART is the lowering of the sulfur content of fuel oil used for combustion in each boiler to 0.70% from 1.00% for Boilers 1 through 3 and from 0.75% for Boiler 4. EPA requested that the State evaluate a BART option to limit the amount of fuel oil combusted but New York indicated that National Grid is unable to accept a permit condition limiting the amount of fuel oil burned, which would limit sulfur emissions,

because it would detract from the operational flexibility needed to meet the requirements of The New York State Reliability Council reliability rule I–R5 (the ''minimum oil burn rule'') which promotes reliability of the electrical grid within the local New York City area.

For control of NO_X emissions, New York reviewed National Grid's BART analysis that considered the addition of SCR, SNCR, and SOFA controls beyond the existing control technology of close coupled over fire air (CCOFA). National Grid determined that SCR is economically infeasible and SNCR is economically and technically infeasible due to the load swinging operation of the boiler and projected low operating capacity factor of 25%. Therefore, the State is proposing that SOFA control technology with emission limits of 0.10 lb/mm BTU when firing natural gas and 0.20 lb/mm BTU when firing fuel oil, both on a 24-hour average, represent BART for each of the four BART eligible boilers.

For control of PM emissions, National Grid determined that there is no feasible or cost effective PM control technology beyond the existing electrostatic precipitator (ESP) control on each boiler since the boilers are predominantly natural gas fired with only a relatively small percentage of oil fired. New York agreed with this BART analysis and is proposing that the current ESP control with an emission limit of 0.10 lb/mm BTU represents BART for each of the four BART eligible boilers. For these boilers, New York indicates that PM from ''unspeciated PM_{10}'' emissions range from approximately 0.017 to 0.027 lb/mm BTU.

The aforementioned BART requirements for Boiler 2 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York finalized the draft Title V permit on March 27, 2012 and expects to submit it as a SIP revision for EPA approval by mid-2012.

NRG—Arthur Kill Generating Station

This facility, owned by NRG Energy and permitted to Arthur Kill Power LLC, operates two very large boilers, Boiler 20 and 30, as well as a combustion turbine and two emergency generators at its Arthur Kill Generating Station located in Richmond County in the city of New York. New York has determined that Boiler 30 (Emission Unit A–K0001; Emission Source 00030) is a BART eligible unit. Boiler 30 is a tangentially fired unit rated at a maximum heat input of 5502 mm BTU/hr and has a generating capacity of 536 MW. Boiler 30 is capable of combusting natural gas or oil, though it has combusted only natural gas for the past 10 years. New York's fuel oil regulation, Part 225, restricts the sulfur content of residual fuel oil and distillate oil to 0.30% (equivalent to about 0.33 lb/mm BTU) and 0.20%, respectively, for sources located in New York City.

NRG submitted a BART determination to New York and the State agreed with the owner's recommendations. Since NRG's original BART determination, New York has proposed Title V permit conditions that are more stringent than NRG's BART proposal in that New York's proposed Title V permit limits Boiler 30 to the combustion of natural gas and no longer allows the use of fuel oil. Therefore, with the combustion of only natural gas, New York expects that SO_2 emissions from Boiler 30 will be limited to the current emission rate of 0.0006 lb/mm BTU, and the State is proposing a BART SO_2 limit of 0.15 lb/mm BTU. EPA does not have a presumptive SO_2 BART limit for boilers that combust natural gas.

For control of NO_X emissions, New York's draft Title V permit requires the combustion of only natural gas and sets a limit of 0.15 lb/mm BTU based on a 24-hour weighted average during the ozone season (May 1 through September 30) and on a 30-day rolling average outside the ozone season. New York indicates that the current NO_X emission rate is 0.088 lb/mm BTU when Boiler 30 combusts natural gas. NRG's BART analysis did not evaluate other control technologies.

For control of PM emissions, NRG evaluated two control technologies and determined that both were economically infeasible. Since natural gas is the primary fuel combusted in this boiler, New York agreed with this BART analysis and the draft Title V permit proposes that current operation (no controls), with an emission limit of 359 tons per year (tpy) represents BART for Boiler 30. NRG's five year (2005 through 2009) look back at emissions from Boiler 30 indicates 329 tpy PM represents the maximum mass emission over a 12 month period. New York's limit of 359 tpy provides a reasonable margin of safety to NRG over actual emissions.

The aforementioned BART requirements for Boiler 30 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York finalized the draft Title V permit on March 20, 2012 and expects to submit it as a SIP revision for EPA approval by mid-2012. New York's draft permit commits NRG to combusting only natural gas which will minimize emissions of SO_2, NO_X, and PM from Boiler 30.

NRG—Oswego Harbor Power

This facility, owned by NRG Energy and permitted to Oswego Harbor Power LLC, operates two very large boilers, Boiler 5 and 6, as well as two smaller packaged boilers at its Oswego Harbor Power Station located in Oswego County. New York has determined that Boilers 5 (Emission Unit U–00005; Emission Source S0005) and 6 (Emission Unit U–00006; Emission source S0006) are BART eligible units. Boilers 5 and 6 are nearly identical in size (rated maximum heat input of 8033 and 8088 mm BTU/hr, respectively) and each is a wall-fired boiler rated at a gross generating capacity of 870 MW. Boilers 5 and 6 are capable of combusting fuel oil (sulfur content of 1.5% and 0.75%, respectively) and Boiler 6 has the capability to co-fire natural gas up to a generating capacity of 150 MW. New York indicates that both units are essentially ''peaking'' units, with actual recent operating capacity being much lower than rated capacity. Each unit had a capacity factor of 3.2% or less during the baseline period (2007–2009), and neither boiler had a capacity factor above 10% since 2001. New York and NRG took these operational characteristics into account in their BART analysis.

NRG submitted a BART determination to New York and the State agreed with the owner's recommendations. For control of SO_2 emissions, New York is proposing that Boiler 5 combust fuel oil with a sulfur content of not more than 0.75% (lowered from current sulfur limit of 1.5%) with an SO_2 emission limit of 0.80 lb/mm BTU (on a 3-hour rolling average) as representing BART. For Boiler 6, New York is proposing that the current fuel oil sulfur limit of 0.75%, with an SO_2 emission limit of 0.80 lb/mm BTU (on a 3-hour rolling average), represents BART. In addition, New York's draft Title V permit proposes that NRG shall not purchase or obtain any fuel oil for combustion, including Boilers 5 or 6, which has a sulfur content of more than 0.50%.

For control of NO_X emissions, New York reviewed NRG's BART analysis that considered seven standard and four innovative control technologies, including SCR and SNCR, and the State concluded that none of the technically feasible control options are economically feasible because each boiler operates at a low annual capacity. New York concluded that BART is the continued use of existing NO_X controls including low NO_X burners (LNB), over

fire air (OFA), and flue gas recirculation (FGR) and the State's draft Title V permit requires that NO_X emissions shall not exceed 383 tpy and 665 tpy from Boilers 5 and 6, respectively, based upon a 12 month rolling total. These NO_X emission limits were established below the threshold that would make an additional control option economically feasible and are based upon baseline emission rates 0.22 and 0.19 lb/mm BTU and annual capacity factors of approximately 5% and 10% for Boilers 5 and 6, respectively.

For control of PM emissions, New York reviewed NRG's BART analysis that considered two potential add-on control technologies but NRG determined, and New York agreed, that these two technologies are not cost effective. New York's draft Title V permit proposes that current PM control with electrostatic precipitators (ESP) with an emission limit of 0.10 lb/mm BTU for Boilers 5 and 6 represents BART. New York reports that the most recent stack tests measured total PM rates of approximately 0.03 lb/mm BTU for each boiler.

The aforementioned BART requirements for Boilers 5 and 6 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York expects to finalize the draft Title V permit and to submit it as a SIP revision for EPA approval by mid-2012. New York's draft permit commits NRG to lower emissions of SO_2, NO_X, and PM due to lower fuel sulfur limits and expected low annual capacity factors for Boilers 5 and 6.

Dynegy—Roseton Generating Station

This facility, owned by and permitted to Dynegy Northeast Generation Inc, operates two very large boilers, Boilers 1 and 2, as well as one smaller auxiliary boiler, at its Roseton Generating Station in Orange County, in the city of Newburgh. New York has determined that Boilers 1 (Emission Unit U–R0001) and 2 (Emission Unit U–R0002) are BART eligible units. Boilers 1 and 2 are both nearly identical in design, each tangentially fired and each rated to generate 600 MW electricity. Both boilers are capable of firing No. 6 fuel oil and natural gas as the primary fuels. Boiler 1 has a heat input rating of 7927 mm BTU/hr when burning No. 6 fuel oil and 7369 mm BTU/hr when firing natural gas. For Boiler 2, the heat input rating is 7691 mm BTU/hr when firing No. 6 fuel oil and is the same as Boiler 1 when firing natural gas. Both boilers have the same air emissions controls: the NO_X controls employ a combination of fuel oil steam atomization, burners out of service (BOOS) and/or wind-box flue gas recirculation (FGR); PM emissions are controlled with a multiclone mechanical collector; and SO_2 emissions are controlled through limitations on the sulfur content (1.3%) of No. 6 fuel oil. Dynegy has indicated that both boilers have operated at low capacity factors over the past few years and the owner projects that the rated capacity factors in 2014 for each boiler will be similar as in recent past years. New York and Dynegy took these operational characteristics into account in their BART analysis.

Dynegy submitted a BART determination (with 1.3% sulfur fuel oil as the base case) to New York and the State agreed with the owner's recommendations. For control of SO_2 emissions, New York is proposing that BART for Boilers 1 and 2 is the combustion of fuel oil with an annual weighted average sulfur limit of 1.0%. Dynegy's five factor BART analysis evaluated eight SO_2 control options, including wet flue gas desulfurization, combustion of lower sulfur fuel oils, as well as 100% gas firing and gas co-firing with fuel oil. Dynegy determined cost effectiveness with the projected low capacity factors since Dynegy determined that a baseline made on the assumption of ''potential to emit'' is not indicative of future operations. As a result of the BART analysis, Dynegy concluded for each boiler, and New York agreed, that the modeled visibility impacts indicate excessive cost per deciview values for all options modeled, with the exception of gas firing and gas co-firing with fuel oil. Dynegy and New York also concluded that although gas co-firing (and 100% gas firing) appears to be feasible with negative annualized costs [17] (cost/ton and cost/dv), it was ruled out as a control option due to high price volatility of natural gas and potential reliability concerns on the State's electric system due to limited supply of natural gas, particularly during the winter.

For control of NO_X emissions, New York reviewed Dynegy's BART analysis that considered fourteen control technologies, including SCR and SNCR, and the State concluded that none of the technically feasible control options are economically feasible because each boiler is projected to operate at a low annual capacity. In addition, Dynegy's visibility analysis also concluded economic infeasibility. New York concluded that BART is the optimization of the wind-box controls and the State's November 2, 2011 final Title V permit requires lowering the permitted NO_X limit from 0.25 lb/mm BTU to 0.20 lb/MM BTU based upon a 30-day average during the non-ozone season and on a 24-hour average during the ozone season.

For control of PM emissions, New York reviewed Dynegy's BART analysis that considered four potential control options, including electrostatic precipitators (ESPs) and gas co-firing, but Dynegy determined, and New York agreed that ESPs are not cost effective and gas co-firing is not practical for the same reasons discussed above for the SO_2 BART determination. Dynegy expects secondary condensable PM emission reductions that will result from its proposed NO_X and SO_2 BART control measures. New York's final Title V permit proposes that current PM control with multiclone mechanical collectors and the current permitted emission limit of 0.10 lb/mm BTU (by stack tests) for Boilers 1 and 2 represents BART.

Although EPA agrees with New York's BART determination for NO_X and PM, EPA disagrees with New York's determination that the use of fuel oil with a sulfur content of 1.0% is BART for controlling SO_2 emissions. Instead, EPA is proposing a Federal plan requiring that the SO_2 emissions from Roseton's Units 1 and 2 meet an emission limit of 0.55 lb/mm BTU on a 24 hour average. EPA proposes that Dynegy's BART eligible units, Roseton Units 1 and 2, comply with EPA's proposed SO_2 emission limit no later than January 1, 2014 which is the compliance date required by New York's BART regulation at Part 249. EPA has estimated that No. 6 fuel oil containing 0.50% sulfur by weight is equivalent to EPA's proposed SO_2 emission limit of 0.55 lb/mm BTU.[18] EPA's proposed emission limit provides flexibility to Dynegy because it allows the operators to combust the following fuels or any combination thereof: (1) 100% fuel oil with a sulfur content of not more than 0.50% by weight; (2) 100% natural gas; and (3) cofiring natural gas and fuel oil with a sulfur content either higher or lower than 0.50%. It is EPA's understanding that New York plans to propose this year a

[17] Dynegy notes that a negative annualized cost for gas co-firing (including 100% gas firing) result from the current lower prices of natural gas compared to No. 6 fuel oil (which is the base case for the SO_2 BART analysis).

[18] EPA did not have the fuel analysis used at the Roseton Generating Station. To estimate this emission limit, EPA used an average heating value for No. 6 fuel oil of 18,200 BTU per pound as found in ''Useful tables for engineers and steam users,'' Fourteenth edition 1984, by The Babcock and Wilcox Company.

revision to 6 NYCRR Part 225, the state's sulfur in fuel regulation that is applicable to industrial boilers, requiring that fuel oil containing sulfur content of more than 0.50% no longer be purchased in a few years.

EPA proposes to determine this flexibility of combusting various fuel combinations in meeting EPA's proposed SO_2 emission limit should alleviate any concerns Dynegy has on natural gas being susceptible to extreme price volatility and limited supply (especially during the winter months) that might result in negative reliability impacts on the electrical grid. As explained further below, EPA believes that an SO_2 emission limit of 0.55 lb/mm BTU, equivalent to No. 6 fuel oil containing 0.50% sulfur, is cost effective on a dollars per ton of SO_2 reduced basis and will provide significant improvement in visibility in the range of 1.0 dv or more at Lye Brook, and about 4.0+ dv cumulative at the seven Class I areas, depending upon the fuel type combusted. EPA considers a visibility impact of 1.0 dv as causing visibility impairment and therefore EPA's proposed emission limit will significantly reduce visibility impairment in the Lye Brook and seven Class I areas. The following paragraph provides further details that led to EPA's decision.

In comparison with Dynegy's baseline (1.3% sulfur fuel oil), it is clear from Dynegy's BART analysis that there is significant visibility improvement at Lye Brook and seven Class I areas as the SO_2 emissions are reduced as illustrated in Dynegy's BART control options of combusting natural gas, cofiring natural gas with oil and combusting fuel oil with sulfur contents lower than 1.3%. From Dynegy's BART analysis, the control options for combusting 100% gas and cofiring gas/oil are cost effective in terms of dollars per ton of SO_2 ($/ton) reduced from the baseline and in terms of dollars per deciview improvement from the baseline. Dynegy's BART recommendation of 1.0% sulfur fuel oil is actually less cost effective in terms of $/ton and $/dv when compared to Dynegy's other low sulfur fuel oil options of 0.70% sulfur, 0.50% sulfur and 0.30% sulfur. In addition the visibility is improved over the base case (1.3% sulfur oil) by as much as 1.42 ddv (i.e., delta deciview) at the 98 percentile and 0.97 ddv maximum at Lye Brook for the control option using 0.50% sulfur fuel. Even better visibility improvements are achieved for the control option of 60% gas cofiring with oil. The visibility improvement for the Dynegy BART recommendation (combusting 1% sulfur fuel oil) is only 0.57 dv at the 98th percentile and 0.57 dv maximum at Lye Brook. The visibility and cost comparisons for the various fuel control options discussed here are for the Roseton Unit 2 boiler but the results for Unit 1 are similar. The reader is referred to the following tables for both boilers that summarize the previous discussion as taken directly or derived from Dynegy's BART analysis.

TABLE 4—ROSETON UNIT 2 (600 MW)—SUMMARY BART EVALUATION FOR SO_2

Baseline SO_2 Emissions (tpy)	Dynegy Control Technology Options Evaluated (partial list)	Emissions, SO_2 (tpy)	Cost Effectiveness ($/ton)	Visibility Improvement Max/8th high from baseline DDV (Lye Brook)	Visibility Improvement Max/8th high from baseline DDV (7 Class I areas)	Cost (mm$/dv) (max/8th high) (Lye Brook)	Cost (mm$/dv) (max/8th high) (7 Class I areas)	Current Controls	New York's BART Determination
A	B	C	D	E	F	G	H	I	J
6766 tpy	0.30% S oil ...	1559 tpy	$3,107	Not Deter	Not Deter	Not Deter	Not Deter	Low sulfur (1.3%) fuel oil.	Use 1.0% S fuel oil instead of current 1.3% S fuel oil.
	0.5% S oil	2600 tpy	3,324	0.97/1.42	8.25/3.96	95/65	11.2/23.3.		
	0.70% oil	3642 tpy	3,684	Not Deter	Not Deter	Not Deter	Not Deter.		
	1.0% S oil	5204 tpy	5,819	0.46/0.57	3.04/1.50	131/106	19.9/40.4.		
	Gas cofire (35%).	4333 tpy	−6,909	1.02/0.971	Not Deter	−110/−115 ..	Not Deter.		
	Gas cofire (60%).	2638 tpy	−8,506	1.68/1.64	Not Deter	−138/−143 ..	Not Deter.		
	100% gas	0 tpy	−9,518	2.8/2.48	16.43/7.13	−153/−173 ..	−26/−60		

Note: In columns E and F, DDV means delta-deciview, i.e. visibility improvement.

TABLE 5—ROSETON UNIT 1 (600 MW)—SUMMARY BART EVALUATION FOR SO_2

Baseline SO_2 Emissions (tpy)	Dynegy Control Technology Options Evaluated (partial list)	Emissions, SO_2 (tpy)	Cost Effectiveness ($/ton)	Visibility Improvement Max/8th high from baseline DDV (Lye Brook)	Visibility Improvement Max/8th high from baseline DDV (7 Class I areas)	Cost (mm$/dv) (max/8th high) (Lye Brook)	Cost (mm$/dv) (max/8th high) (7 Class I areas)	Current Controls	New York's BART Determination
A	B	C	D	E	F	G	H	I	J
1860 tpy	0.30% S oil ...	429 tpy	$43,107	Not Deter	Not Deter	Not Deter	Not Deter	Low sulfur (1.3%) fuel oil.	Use 1.0% S fuel oil instead of current 1.3% S fuel oil.
	0.5% S oil	715 tpy	3,324	0.853/1.370 ...	8.45/4.01	111/69	11.3/23.7.		
	0.70% oil	1001 tpy	3,684	Not Deter	Not Deter	Not Deter	Not Deter.		
	1.0% S oil	1431 tpy	5,646	0.339/0.501 ...	3.17/1.41	179/121	19.1/42.9.		
	Gas cofire (35%).	1179 tpy	−9,908	0.946/0.932 ...	Not Deter	−178/−181 ..	Not Deter.		
	Gas cofire (60%).	713 tpy	10,078	1.644/1.622 ...	Not Deter	−176/−178 ..	Not Deter.		
	100% gas	0 tpy	−10,361	2.8/2.48	15.3/17.3	−172/−194 ..	−27/−58.		

Note: In columns E and F, DDV means delta-deciview, i.e. visibility improvement.

The aforementioned BART requirements for NO_X and PM for Boilers 1 and 2 are included in New York's final Title V permit (dated November 2, 2011) which also includes requirements for monitoring, record keeping and reporting, and includes a compliance date of January 1, 2014. New York expects to submit the permit

as a SIP revision for EPA approval by mid-2012. Once the SIP revision is approved by EPA, the BART requirements for NO_X and PM for each boiler become federally enforceable. Should New York not submit the final Title V permit for Boilers 1 and 2 in a timely manner, EPA proposes that the aforementioned BART requirements for NO_X and PM be considered as federal requirements as part of a FIP.

In addition, as discussed above, EPA is proposing a FIP for controlling SO_2 emissions from Boilers 1 and 2. EPA proposes that SO_2 emissions from Boilers 1 and 2 not exceed the limit of 0.55 lb/mm BTU on a 24-hour average not later than January 1, 2014. EPA further proposes that the same requirements for monitoring, recordkeeping and reporting as described in New York's final Title V permit be required to comply with EPA's proposed BART emission limit for SO_2.

In summary, EPA is proposing partial approval and partial disapproval of New York's BART determinations for Boilers 1 and 2 at Dynegy's Roseton Generating Station. EPA is proposing to approve New York's BART determination for NO_X and PM because it was conducted in a manner consistent with EPA's BART Guidelines. EPA is proposing to disapprove New York's BART determination for SO_2 because, as discussed above, a different control strategy as proposed by EPA, will result in improved visibility that is cost effective over what New York and Dynegy are proposing for BART.

Dynegy—Danskammer Generating Station

Dynegy Northeast Generation Inc. owns and is permitted to operate a 235 megawatt electrical generating unit at its Danskammer Generating Station in Orange County, in the city of Newburgh. New York has determined that Boiler Unit 4 (Emission Unit U–D0004) is a BART eligible unit. Boiler 4 is a tangentially coal-fired steam generating boiler and is capable of firing coal, No. 6 fuel oil and natural gas, with coal as the primary fuel. Boiler 4 has a heat input rating of 2,512 mmBTU/hr when burning coal, 2,004 mmBTU/hr when combusting No. 6 fuel oil and 2,397 mmBTU/hr when firing natural gas. Boiler 4 has existing NO_X emission controls of low excess air, combustion air manipulation, separated overfire air, burners out of service, and low NO_X burners; PM emissions are controlled with an existing cold side electrostatic precipitator; and SO_2 emissions are controlled through limitations on the sulfur content (0.7%) of coal.

Dynegy submitted a BART determination (with 2,512 mmBTU per hour while burning coal as the base case) to New York and the State agreed with the owner's recommendations. On November 2, 2011, New York proposed the Title V permit modification to incorporate Dynegy's BART determinations into their permit and to provide for public comment. New York has not yet issued this permit modification as final. For control of SO_2 emissions, New York is proposing that BART for Boiler 4 is the lowering of the current SO_2 permit limit from 1.10 lbs/mmBTU to 0.50 lbs/mmBTU, resulting in an emission reduction of 6,602 tons per year, or 55%. Dynegy's five factor BART analysis evaluated thirteen SO_2 control options including, Flue Gas Desulfurization options with Lime Based Spray Dryer; Circulating Dry Scrubber and Wet Limestone; Dry Sorbent Injection of Trona options; combustion of alternative coals; 100% combustion of natural gas; co-firing natural gas; and a 0.5 lbs/mmBTU emission limit on a 24-hour basis.

Dynegy determined the annualized costs and the annualized control costs per ton of emission reductions of SO_2 (based on 100% capacity factor) for each BART control option. All of the BART controls were shown to be cost effective according to New York's guidance, at or below $5,500 per ton. The annualized costs were in the range of $20 to 30 million for flue gas desulfurization options, $2 to 3 million for dry sorbent injection options, $8 to 25 million for gas firing options, and $7 to 46 million for alternative coal options. The annualized costs for complying with a 0.5 lb/mmBTU emission limit, New York's proposed BART determination emission limit, are $11 million with a cost effectiveness of $1,683 per ton.

According to Dynegy's analysis, the flue gas desulfurization and dry sorbent injection control options all have energy and adverse non-air quality environmental impacts, including solid waste disposal issues. Wet limestone FGD creates a waste water stream that requires additional treatment prior to release into the water system. The gas firing options could be susceptible to price volatility and limited supply, creating an adverse impact on electric grid reliability, which may also have non-air quality environmental impacts.

Visibility impacts were modeled for selected BART control options. For FGD for example, maximum predicted visibility improvement of 4.749 deciviews and eighth highest improvement of 2.174 deciviews would occur at the nearby seven Class I areas. For gas co-firing at 60% for example, maximum visibility improvement of 4.364 deciviews and eighth highest improvement of 1.522 deciviews would occur. Complying with New York's proposed 0.50 lb/mmBTU BART emission limit was predicted to result in a 2.759 maximum deciview improvement and a 1.015 eighth highest deciview improvement.

Dynegy concluded that:

- Although the FGD options are cost-effective, have high control efficiencies, and would result in visibility improvements, there are many non-air quality environmental concerns and these controls would yield additional power requirements.
- While dry sorbent injection options are also cost-effective, they have lower control efficiencies, non-air quality environmental concerns, and result in less visibility improvement than the 0.50 lb/mmBTU emission limit option.
- Although gas co-firing (and 100% gas firing) appears to be feasible and cost effective, it was ruled out as a control option due to high price volatility of natural gas and potential reliability concerns on the state's electric system due to limited supply of natural gas, particularly during the winter.
- Alternative coal options were also ruled out due to lower heating content, which would require more coal to be shipped and result in more solid waste products.

For control of NO_X emissions, New York is proposing that BART for Boiler 4 is the lowering of the current NO_X permit limit from 0.42 lbs/mmBTU to 0.12 lbs/mmBTU, resulting in an emission reduction of 3,300 tons per year, or 71%. Dynegy's BART analysis considered nineteen control technologies, including Selective Catalytic Reduction; Selective Non-Catalytic Reduction; hybrid SNCR/SCR system; SNCR Trim; Gas Reburn; Flue gas recirculation options; combustion of alternative coals; 100% combustion of natural gas; co-firing natural gas; and a 0.12 lbs/mmBTU emission limit.

Dynegy determined the annualized costs and the annualized control costs per ton of emission reductions of NO_X (based on 100% capacity factor) for each BART control option. The annualized costs were $12 million for SCR, $66 million for SNCR, $9 million for the hybrid SCR/SNCR, $56 million for SNCR Trim, in the range of $7 to 46 million for alternative coal options, in the range of $8 to $25 million for gas firing options, and $348,655 to $9 million for flue gas recirculation options.

The following BART controls were shown to be cost effective according to

New York's guidance, at or below $5,500 per ton: SCR, Hybrid SCR/SNCR, Alternative Chinese Coal, and the FGR options. Dynegy determined SCR and the Hybrid SCR/SNCR option to be technically infeasible due to the ammonia handling issues and other non-air quality environmental impacts. The gas firing options could be susceptible to price volatility and limited supply, creating an adverse impact on electric grid reliability, which may also have non-air quality environmental impacts. Alternative coal options were also ruled out due to lower heating content, which would require more coal to be shipped and result in more solid waste products. FGR options were not necessarily ruled out, but they had minimal visibility improvement and the proposed 0.12 lbs/mmBTU BART emission limit compliance option was more effective in reducing emissions than the other cost-effective options.

Visibility impacts were modeled for selected BART control options. For the Hybrid SCR/SNCR option, maximum predicted visibility improvement of 2.244 deciviews and eighth highest improvement of 0.689 would occur at all of the Class I area. For FGR, maximum visibility improvement of 0.215 deciviews and eighth highest improvement of 0.084 would occur. For FGR and SCR, maximum visibility improvement of 2.477 deciviews and eighth highest improvement of 0.651 deciviews would occur. For gas firing at 100% at 0.08 lbs/mmBTU, maximum visibility improvement of 8.577 deciviews and eighth highest improvement of 2.896 deciviews would occur. Complying with a 0.12 lb/mmBTU emission limit was predicted to result in a 1.943 maximum deciview improvement and a 0.569 eighth highest deciview improvement.

Dynegy concluded that:

- SCR and Hybrid SCR/SNCR while cost-effective were not technically feasible due to several non-air quality environmental concerns. Hybrid SCR/SNCR also had minimal visibility improvement.
- SNCR was ruled out as not cost-effective and also presented many non-air quality environmental concerns.
- Alternative coal options were also ruled out due to lower heating content, which would require more coal to be shipped and result in more solid waste products.
- Other gas co-firing options and 100% gas firing appears not to be cost-effective, and were ruled out as a control option due to high price volatility of natural gas and potential reliability concerns on the state's electric system due to limited supply of natural gas, particularly during the winter.
- While FGR options were not necessarily ruled out, they had minimal visibility improvement and the proposed 0.12 lbs/mmBTU BART emission limit compliance option was more effective in reducing emissions than the other cost-effective options.

Therefore, New York proposes for the control of NO_X emissions, BART for Boiler 4 is the lowering of the current NO_X permit limit from 0.42 lbs/mmBTU to 0.12 lbs/mmBTU. This BART control option is based on optimizing the existing low NO_X burners, co-firing with natural gas, installation of post combustion controls, use of alternative coals, or any combination thereof. The proposed NO_X emission limit is 0.12 lbs/mmBTU (24-hour average during ozone seasons, 30-day average during non-ozone seasons).

For the control of PM emissions, Danskammer Unit 4 currently has a cold side electrostatic precipitator (ESP). This ESP achieved an average 99.98% control efficiency in recent stack tests and is a state-of-the-art technology for PM control for Danskammer Unit 4. Other control technologies such as a mechanical collector, baghouse, or wet particulate scrubbers could be considered as additional feasible PM control options. According to Dynegy's analysis, a search of available control technology research and industry knowledge, any other commonly applied PM control, such as fabric filter or wet scrubber, would be expected to achieve a maximum control efficiency of up to 99% and an average control efficiency of 95%. Therefore, New York proposes the existing ESP to represent the maximum control for BART for Danskammer Unit 4, and completion of the five-step BART process, including visibility modeling, is not required. The proposed BART PM emission rate is 0.060 lbs/mmBTU.

The reader is referred to the following table for Unit 4 that summarizes this discussion as taken directly or derived from Dynegy's BART analysis.

TABLE 6—DANSKAMMER UNIT 4 (235 MW)—SUMMARY BART EVALUATION

	Source and size	Baseline Emissions (tpy)	Possible Control Technology of Interest (partial list)	Emission Rate with this control (lb/mmBTU or other)	Cost Effectiveness ($/ton)	Visibility Improvement (7 Class I areas) max/8th high DV	Cost (mm$/dv) Max/8th high	Current Controls	New York's proposed BART Determination
	A	B	C	D	E	F	G	H	I
SO_2	Unit 4, coal-fired boiler 235 MW. Can burn coal, oil, gas.	12,103 tpy	Lime-Based Spray Dryer FGD with Baghouse 91.5% control efficiency.	1029 tpy; 234.9 lb/hr. 0.09 lb/mmBtu	1840	4.749 max 2.174 high 8	4.29 max 9.37 high 8	None. Currently uses 0.7% sulfur coal.	0.50 lb/mmBtu.
			Gas Cofiring 60%. 59.97% control efficiency.	4712 tpy 1075.8 lb/hr 0.43 lb/mmBtu	2072	4.364 max 1.522 high 8	3.5 max 10.0 high 8		
			0.50 lb/mmBtu 55% control efficiency.	5501 tpy 1256 lb/hr 0.50 lb/mmBtu	1683	2.759 max 1.015 high 8	4.02 max 10.9 high 8.		
NO_X		4621 tpy	SCR ~ 83% control efficiency. SNCR ~ 35% control efficiency.	786 tpy 3004 tpy	3151 41345	Not provided Not provided	Not provided Not provided	low excess air, OFA, BOOS, LNBs.	0.12 lb/mmBTU.

TABLE 6—DANSKAMMER UNIT 4 (235 MW)—SUMMARY BART EVALUATION—Continued

	Source and size	Baseline Emissions (tpy)	Possible Control Technology of Interest (partial list)	Emission Rate with this control (lb/mmBTU or other)	Cost Effectiveness ($/ton)	Visibility Improvement (7 Class I areas) max/8th high DV	Cost (mm$/dv) Max/8th high	Current Controls	New York's proposed BART Determination
	A	B	C	D	E	F	G	H	I
			Hybrid SCR/ SNCR. 60% control efficiency.	1848 tpy ..... 422 lb/hr 0.17 lb/mmBtu	3353	2.244 max ..... 0.689 high 8	4.1 max 13.5 high 8..		
			Alternative coal options.	2773 to 3656 tpy.	4509 to 47753	Not provided	Not provided.		
			Gas firing 100%. 81% control efficiency.	880 tpy ..... 201 lb/hr 0.08 lb/mmBtu	6824	8.577 max ..... 2.896 high 8	2.98 max 8.81 high 8.		
			FGR ..... 8% control efficiency.	4251 tpy ..... 970.6 lb/hr .... 0.39 lb/mmBtu	943	0.215 max ..... 0.084 high 8	1.62 max 4.15 high 8.		
			FGR + SCR .. 91% control efficiency.	4216.5 tpy ..... 962.7 lb/hr .... 0.38 lb/mmBtu	2012	2.477 max ..... 0.651 high 8	3.42 max 12.99 high 8.		
			0.12 lb/MMBtu ~71% control efficiency.	1320 tpy ..... 301.4 lb/hr .... 0.12 lb/mmBtu	6088	1.943 max ..... 0.569 high 8	10.3 max 35.3 high 8.		
PM	.....	660 tpy	N.A.	N.A.	N.A.	N.A.	N.A.	ESP ..... 99.98% efficient.	0.06 lb/mmBtu Existing control is max control.

EPA is proposing partial approval and partial disapproval of New York's proposed BART determinations for Unit 4 at Dynegy's Danskammer Generation Station. EPA is proposing to approve New York's proposed NO_X BART emission limit of 0.12 lb/mmBTU and proposed PM BART emission limit of 0.06 lb/mmBTU. EPA is proposing to disapprove a portion of New York's proposed BART determination for Danskammer Unit 4 with respect to SO_2 emissions because other BART control options as presented by Dynegy are also technically feasible, cost-effective and provide additional visibility improvement.

In its proposed BART determination, New York and Dynegy considered several SO_2 control technology options including Flue Gas Desulfurization, combustion of alternative coals, and combusting different percentages of natural gas. New York and Dynegy proposed that the SO_2 emission limit of 0.5 lb/mmBTU on a 24-hour average is BART, and that this emission limit will be achieved through some post combustion control, switching of fuels or a combination of these or other options. The result of our own evaluation of Dynegy's analysis is that these same control option strategies can achieve a more stringent SO_2 emission limit than the 0.5 lb/mmBTU limit, on a more cost-effective basis, and therefore result in more visibility improvement. Based on the information contained in Dynegy's BART analysis, and specifically on the emission rate information (also summarized in Table 6), EPA is proposing to establish an SO_2 BART emission limit of 0.09 lb/mmBTU on a 24-hour average. Our proposed disapproval is based in large part on Dynegy's own BART analysis, showing that FGD controls and/or combusting natural gas are cost effective and would result in enough incremental visibility improvement at a single Class I area to justify the incremental cost of the control strategies.

In addition, the results of our own analysis of the visibility improvement differ from Dynegy's analysis in that Dynegy's proposed BART determination appears to be based on the highest visibility improvements that may occur at only one of the seven Class I areas that could be impacted. In making BART determinations, EPA also recommends the consideration of cumulative impacts and improvements that could occur at all of the Class I areas a particular facility might impact. EPA's analysis of the cumulative visibility improvements at all 7 Class I areas justifies a more stringent BART emission limit. While our analysis differs from Dynegy's analysis and New York's proposed BART determination in this respect, we concur with the other portions of the analysis regarding achievable emission reductions and cost-effectiveness.

Since New York's proposed BART determination and permit modification has not been issued as final, there is the possibility that additional information may be provided for New York to evaluate which may influence New York to consider other options for BART. Likewise, additional information may be provided to further support New York's proposed BART determination. EPA is aware that New York has received comments from the public on the proposed BART permit modification. Therefore EPA is similarly providing for the possibility that New York may consider other options for BART before issuing a final BART permit.

While EPA is proposing to disapprove New York's proposed SO_2 BART determination for Danskammer Unit 4, EPA is also proposing two options for the SO_2 BART FIP for Danskammer. (Because we are proposing to disapprove this provision of the SIP, we are concurrently proposing a FIP.) Based on the discussion in this section, our FIP proposes promulgating two options for an SO_2 BART emissions limit for Danskammer Unit 4:

Option 1: EPA proposes to approve New York's proposed SO_2 BART emission limit of 0.50 lb/mmBTU on a 24-hour average in the event additional information is submitted to support this emission limit.

Option 2: EPA proposes to establish an SO_2 BART emission limit of 0.09 lb/mmBTU on a 24-hour average.

EPA is requesting comment on these two options in order to provide for the opportunity for submittal of additional

documentation or information that might be considered by EPA to approve either of the two options as BART.

In summary, we are proposing to approve New York's proposed determination for NO_X and PM BART for Danskammer Unit 4. We are proposing to disapprove New York's proposed SO_2 BART determination for Danskammer Unit 4 to meet an emission limit of 0.5 lb/mmBTU. Because we are proposing to disapprove this provision of the SIP, we are concurrently proposing a FIP. Our FIP proposes promulgating two options for an SO_2 BART emissions limit for Danskammer Unit 4. For option 1 we propose to approve New York's proposed SO_2 BART emission limit of 0.50 lb/mmBTU on a 24-hour average in the event additional information is submitted to support this emission limit. For option 2 we propose to establish an SO_2 BART emission limit of 0.09 lb/mmBTU on a 24-hour average.

The aforementioned BART requirements proposed by New York for Unit 4 are included in New York's proposed Title V permit, which also includes requirements for monitoring, recordkeeping and reporting and includes a compliance date of January 1, 2014. EPA expects New York will issue a final BART determination and submit the permit as a SIP revision for EPA approval. If EPA is able to approve the BART determination, then the permit requirements for the boiler become federally enforceable. Should New York not submit the final Title V permit for Boilers 4 in a timely manner, or adequately demonstrate that the proposed BART determination is BART, EPA proposes that the aforementioned BART requirements be considered as federal requirements as part of a FIP.

GenOn (Mirant)—Bowline Generating Station

This facility, owned and permitted to GenOn Bowline LLC, operates two very large boilers, Boilers 1 and 2, as well as an emergency generator at its Bowline Generating Station located in the town of Haverstraw, Rockland County. New York has determined that Boiler 1 (Emission Unit 1–00001; Emission source 00UN1) and 2 (Emission Unit 1–00002; Emission source 00UN2) are BART eligible units. Boilers 1 and 2 are nearly identical in size (rated maximum heat input of 5546 and 5374 mm BTU/hr, respectively) and each has a nominal electric generating capacity of 570 MW. Boiler 1 is a tangentially-fired boiler that can fire either natural gas or No. 6 fuel oil with a maximum sulfur content of 0.37%. In 2009, Boiler 1 operated only 568 hours (6.5% of the year) during which time No. 6 fuel oil was combusted for 95 hours (or 17% of operating hours). Boiler 2 is an opposed wall-fired boiler that combusts the same fuels as Boiler 1. In 2009, Boiler 2 operated for only 187 hours (2.1% of the year) during which time No. 6 fuel oil was combusted for 24 hours (or 13% of operating hours). New York indicates that both boilers operate very infrequently and are essentially ''peaking'' units under current and expected future operations. New York and NRG took these operational characteristics into account in their BART analysis.

GenOn (Mirant) submitted a BART determination to New York and the State agreed with the owner's recommendations. For control of SO_2 emissions, New York is proposing that the current fuel oil sulfur limit of 0.37% (maximum, not to be exceeded at any time) represents BART for Boilers 1 and 2. This fuel oil sulfur limit is proposed for BART in New York's draft Title V permit. GenOn's (Mirant's) five factor BART analysis evaluated three SO_2 control options, including wet flue gas desulfurization (FGD), spray dryer absorber, and dry sorbent injection. Only wet FGD was determined to be technically feasible however not cost effectiveness due to the low operating hours and low sulfur fuel oil.

For control of NO_X emissions, New York reviewed GenOn's (Mirant's) BART analysis that considered a broad spectrum of control options including combustion controls, post-combustion controls (including SCR and SNCR), and combinations of controls and the State concluded that none of the technically feasible control options are economically feasible. New York concluded that BART is the continued use of existing NO_X controls and the State's draft Title V permit requires the NO_X emissions for Boilers 1 and 2 each be limited to 0.15 lb/mm BTU (24-hour average during the ozone season and 30 day rolling average during the non-ozone season). The existing NO_X controls include off-stoichiometric firing for both boilers and additional controls for Boiler 2 including overfire air (OFA) and windbox flue gas recirculation (FGR).

For control of PM emissions, New York reviewed GenOn's (Mirant's) BART analysis that considered combustion controls, fabric filter, wet electrostatic precipitator, and wet scrubbing. GenOn (Mirant) and New York determined that additional combustion controls and fabric filters are technically infeasible; wet scrubbing is less efficient than ESPs and fabric filters; and wet ESP is technically feasible but not economically feasible. GenOn (Mirant) and New York note that the visibility impacts of PM emissions for Boilers 1 and 2 are relatively low in that PM contributes less than 10% of the total visibility impact on Class I areas for each case modeled. New York concluded that no further control is required as BART for PM. New York's draft Title V permit proposes that current PM emission limit of 0.10 lb/mm BTU for Boilers 1 and 2 represents BART.

The aforementioned BART requirements for Boilers 1 and 2 are included in New York's draft Title V permit including requirements for monitoring, recordkeeping and reporting and includes a compliance date of January 1, 2014. New York expects to finalize the draft Title V permit and to submit it as a SIP revision for EPA approval by mid-2012.

Alcoa, Inc—Alcoa Massena Operations (West Plant)

This aluminum production facility, owned by and permitted to Alcoa Inc, operates an Aluminum Production Cell (Potline), two Anode Baking Furnaces, Four Packaged Boilers and various other processing units at its Massena Operations (West Plant) in St. Lawrence County, in the city of Massena. New York has determined that the Potline (Emission Unit S–00001; Emission Source SS198), Anode Baking Furnaces (Emission Unit S–00002; Emission Source SS78) and four Package Boilers (Emission Unit B–00001; Emission Sources B0001 through B0004) are BART eligible units. Alcoa submitted a BART analysis to New York and the State agreed with the owner's recommendations. The following describes the State's BART determination for each BART eligible unit.

A. Potline

Aluminum metal is produced by electrolytic reduction of alumina in these shallow rectangular cells, or ''pots.'' There is no combustion of any fuels for this unit. Carbon electrodes extending into the pots serve as the anodes and carbon lining of the cells as the cathode. The carbon anodes, which contain sulfur impurities, are continuously depleted during the electrolytic reduction of the alumina and SO_2 is emitted during this process as the anodes are depleted. The current Potline control device is a dry alumina injection system followed by a fabric filter to control fluoride emissions; the system has 98% capture efficiency and a PM collection efficiency of greater than 95%.

For control of SO_2 emissions, New York is proposing that BART for the Potline is limiting the sulfur content of the coke raw material used to produce anodes to 2.5%, which is the limit included in New York's Air State Facility permit that was issued final on March 20, 2012. Alcoa's BART analysis evaluated two types of wet flue gas desulfurization systems but it was determined that both are not economically feasible. In addition, Alcoa determined that any visibility improvement from reduction of SO_2 emissions would be minimal. As a result of this BART analysis, Alcoa concluded, and New York agreed, that BART for the Potlines is limiting the sulfur content of the anodes to not more than 2.5% determined on an annual average rolled monthly.

For control of NO_X emissions, Alcoa determined, and New York agreed, that there are no technically feasible controls that represent BART. Alcoa evaluated two add-on controls, including SCR and SNCR, but these were determined to be technically infeasible due to the low temperatures of the exhaust gas. All combustion modification techniques were eliminated from a BART analysis because there are no conventional burners or combustion points in the Potline operation. New York's final Air State Facility permit includes a BART limit of 50 TPY NO_X.

For control of PM emissions, Alcoa determined, and New York agreed, that the existing dry alumina injection system and fabric filter represents BART for the Potline. Alcoa points out that PM emissions represent only about 1.5% of the total facility visibility impact which is 0.83 dv. New York's final Air State Facility permit includes a BART limit of 168 TPY PM–10.

B. Anode Baking Furnaces

Anodes used in the Potline are manufactured in an on-site production plant. Coke, containing sulfur impurities, is used in the production of the anodes. Alcoa has two anode baking furnaces that are commonly controlled by a single dry alumina injection system and a pulse jet fabric filter which has a control efficiency greater than 95%. These furnaces are fueled with natural gas.

For control of SO_2 emissions, New York is proposing that BART for these two furnaces is limiting the sulfur content of the anode coke to 2.5%, which is the limit included in New York's final Air State Facility permit. Alcoa's BART analysis evaluated wet flue gas desulfurization system but it was determined that it is not economically feasible. As a result of this BART analysis, Alcoa concluded, and New York agreed, that BART for the Anode Baking Furnaces is limiting the sulfur content of the anode coke to not more than 2.5% determined on an annual average rolled monthly.

For control of NO_X emissions, Alcoa determined, and New York agreed, that there are no technically feasible controls that represent BART. Alcoa evaluated two add-on controls, including SCR and SNCR, but these were determined to be technically infeasible due to the low temperatures of the exhaust gas. Combustion modification techniques were also determined to be not technically feasible. New York's final Air State Facility permit includes a BART limit of 203 tpy NO_X.

For control of PM emissions, Alco determined, and New York agreed, that the existing dry alumina injection system with a pulse jet fabric filter satisfies BART for the Anode Baking Furnaces. New York's final Air State Facility permit includes a BART limit of 24 TPY PM–10.

C. Four Package Boilers

These four units are virtually identical boilers fired by either natural gas or oil. Each boiler has one wall-fired burner which has a maximum rated heat capacity of 200 mm BTU/hr for natural gas and approximately 200 mm BTU/hr for No. 6 fuel oil using atomized steam. Current NO_X controls include low NO_X burners (LNB) and flue gas recirculation (FGR).

For control of SO_2 emissions, New York is proposing that BART is limiting the sulfur content of the fuel oil to 1.5% which is the limit included in the State's final Air State Facility permit. Alcoa's BART analysis evaluated the cost of fuel oil with sulfur content from 1.5% down to 0.5% and determined that it was not economically feasible to purchase fuel oil with sulfur content lower than 1.5%. As indicated above for the Dynegy Roseton BART analysis, New York plans to propose this year revisions to it sulfur in fuel regulation, Part 225, by limiting the sulfur content of residual oil to 0.50% to be effective within a few years. New York indicated that recent (2011) deliveries to the plant had fuel oil sulfur content in the range of 0.60 to 0.90%. Alcoa's BART analysis indicates that sulfur emissions from the boilers contribute a visibility impact of only about 0.18 dv. As a result of this BART analysis, Alcoa concluded, and New York agreed, that BART for these four boilers is limiting the sulfur content of the fuel oil to not more than 1.5% for any fuel delivery.

For control of NO_X emissions, Alcoa determined, and New York agreed, that the current control technologies (LNB and FGR) and current permitted emission limit represents BART. Alcoa evaluated other control options, including SCR and SNCR, but these were determined to be economically infeasible. New York took into consideration that recent testing indicates that NO_X emissions are reported to be 0.08 lb/mm BTU for gas and 0.27 lb/mm BTU for oil. New York's final State Facility permit includes a BART limit of 0.30 lb/mm BTU NO_X.

For control of PM emissions, Alco determined, and New York agreed, that the current permit emission limit represents BART. New York indicates that compliance tests conducted in March 2006 show measured total particulate emissions of 0.045 lb/mm BTU when firing No. 6 fuel oil.

Additionally, Alcoa's BART analysis indicated that PM emissions from the boilers have a small impact on visibility. Consequently, New York's final State Facility permit includes a PM–10 BART limit of 0.10 lb/mm BTU.

The aforementioned BART requirements for the Potline, Anode Baking Furnaces and four Package Boilers are included in New York's final (on March 20, 2012) Air State Facility permit including requirements for monitoring, record keeping and reporting and includes a compliance date of January 1, 2014. New York expects to submit the permit as a SIP revision for EPA approval by mid-2012.

Lehigh Northeast Cement Company

This facility, owned by and permitted to Lehigh Northeast Cement Company, operates a rotary kiln and associated clinker cooler as part of this Portland cement manufacturing operation, and associated quarry, located at Glens Falls, Warren County. New York has determined that the rotary kiln (Emission Unit: 0–UKILN) and the associated clinker cooler are BART eligible units. Lehigh submitted a BART analysis to New York and the State agreed with the owner's recommendations. The following describes the State's BART determination for each of the BART eligible units.

A. Rotary Kiln

This unit is a short, dry preheater kiln rated at 160 tons per hour. Coal is the primary fuel used in the kiln, with natural gas used as a startup or backup fuel. Currently, PM emissions from the kiln are controlled by an electrostatic precipitator (ESP) and a lime slurry system is used for detached plume abatement and for SO_2 control.

For control of SO_2 emissions, New York is proposing that current operations represent BART. The rotary kiln currently reduces SO_2 emissions through an inherent dry scrubbing (IDS) process which entails the operation of a raw mill that is part of the kiln operation. The raw mill typically operates as part of the kiln operation for about 80% of the time and SO_2 emissions from the kiln are reduced to about 20 ppm (typically) whenever the raw mill is operated. New York indicates that SO_2 reduction from the kiln is approximately 85% when the raw mill is in operation. When the raw mill is not operating, Lehigh currently employs a lime spray drying system to reduce SO_2 emissions and for purposes of abatement of an ammonium sulfate plume (detached plume abatement). This lime spray drying system typically achieves up to 74% SO_2 reduction[19] during periods when the raw mill is not operating. Lehigh's BART analysis evaluated four other SO_2 control options including fuel substitution, raw material substitution, dry lime injection and wet lime scrubbing (WLS) and Lehigh determined, and New York agreed, that the evaluated control options are either not cost effective (WLS), not technically feasible (upgrade the existing lime spray dryer), have no appreciable improvement in SO_2 reduction over the existing system or have no appreciable improvement in visibility (WLS and lime spray dryer upgrade). New York's Title V permit was issued final on February 28, 2012 and includes the following currently effective SO_2 emission limits for the rotary kiln: (1) 5.0 lbs/mm BTU of fuel measured on a daily basis; and (2) 3.8 lb/mm BTU of fuel measured on a monthly rolled 3 month calendar basis; and (3) 3.4 lb/mm BTU of fuel on a monthly rolled 12 calendar month period. The Title V permit states that the SO_2 emission limits become effective upon Lehigh's certification of a future SO_2 CEMS to be located on the rotary kiln exhaust stack(s). Until the SO_2 CEMS system is certified, the sulfur limits in the coal fired in the rotary kiln are enforceable by the State. The Title V permit includes the following currently effective limits on the sulfur content of the coal fired in the kiln: (1) 2.5 lb/mm BTU maximum at any time; (2) 1.9 lb/mm BTU on a 90-day average; and (3) 1.7 lb/mm BTU annual maximum rolled monthly. New York's Title V permit indicates that the sulfur limits in the coal will expire once Lehigh has certified successful operation of the SO_2 CEMS. However, New York has clarified to EPA that the installation of SO_2 CEMS is optional and not a permit requirement. It should also be noted that SO_2 emissions also result from sulfur in the raw materials fed to the kiln. Although the permitted SO_2 emissions seem high, EPA expects that actual emissions from the kiln will be much lower given that Lehigh states in its BART analysis that SO_2 reductions with the raw mill in operation is about 85%; and is about 74% when the lime slurry system becomes operational as the raw mill stops operating.

For the control of NO_X emissions, New York is proposing that BART for the rotary kiln is the installation of selective non-catalytic reduction (SNCR) technology. Lehigh's BART analysis evaluated five potential NO_X control technologies, including SCR and SNCR, and concluded that only two control technologies are technically feasible, i.e., SNCR and low NOx burners (LNB). Lehigh concluded that SNCR technology is cost effective ($1,145/ton NO_X removed) and results in greater reduction in NO_X emissions from the rotary kiln than LNB and therefore SNCR is considered BART. The SNCR manufacturer provides a guarantee NO_X removal of 50%. New York's final Title V permit establishes a BART NO_X emission limit of 2.88 lb/ton clinker produced with a compliance date of January 1, 2014.

For control of PM emissions, Lehigh determined, and New York agreed, that the removal and replacement of the existing ESP with a fabric filter to meet the requirements of EPA's Portland cement MACT (40 CFR part 63, Subpart LLL) also represents BART. Lehigh's BART analysis for PM evaluated four potential control options including ESP, fabric filter, cyclones and a wet scrubber. The wet scrubber was deemed technically infeasible for a cement plant for PM control. Although the fabric filter was deemed the most effective PM control technology, Lehigh determined it to be not cost effective for BART but committed to replace the existing ESP with a fabric filter to comply with EPA's Portland cement MACT. New York's final Title V permit requires that PM emissions from the rotary kiln meet a limit of 0.30 lb/ton feed. Additional PM reductions are expected to occur in the future as required to meet the new Portland Cement MACT standards, since the PM limit promulgated in the Portland Cement MACT standard for existing cement kilns is 0.04 lb/ton clinker.

B. Clinker Cooler

The clinker cooler is a portion of the kiln processing system. When the clinker has been fully formed in the kiln, it is conveyed to the clinker cooler, which consists of a series of grates over which the clinker travels and is exposed to forced ambient air for cooling. Hence, only PM is emitted from the clinker cooler. The current PM control on the clinker cooler is a baghouse. Lehigh proposed, and New York agreed, that the existing baghouse represents BART for the clinker cooler. Because the unit is required to meet the Portland Cement MACT standard for clinker coolers, Lehigh contends that the compliance with the applicable PM emission limits in the Portland Cement MACT rule and the use of the existing baghouse represents BART. Lehigh did not evaluate other technologies since there are no other new technologies subsequent to the MACT standard. New York's final Title V permit requires that PM emissions from the clinker cooler meet a BART limit of 0.10 lb/ton feed. Additional PM reductions are expected to occur in the future as required to meet the new Portland Cement MACT standards, since the PM limit promulgated in the Portland Cement MACT standard for an existing clinker cooler is 0.04 lb/ton clinker.

The aforementioned BART requirements for the rotary kiln and associated clinker cooler are included in New York's final (on February 28, 2012) Title V permit including requirements for monitoring, recordkeeping and reporting and includes a compliance date of January 1, 2014. New York expects to submit the final Title V permit as a SIP revision for EPA approval by mid-2012. Once the SIP revision is approved by EPA, the BART requirements for the kiln and clinker cooler become federally enforceable. Should New York not submit the final Title V permit for the kiln and clinker cooler in a timely manner, EPA proposes that the aforementioned BART requirements be considered as federal requirements as part of a FIP. Should the existing final Title V permit be revised under New York's permitting procedures, New York must submit any revisions to EPA as a SIP revision for the purpose of complying with BART.

Kodak—Eastman Business Park

This facility, owned by and permitted to Eastman Kodak Co, operates three very large boilers, Boiler 41 (Emission Unit U–00015; Emission Source 321AG), Boiler 42 (Emission Unit U–00015; Emission Source 321AH), Boiler 43 (Emission Unit U–00015; Emission

[19] Lehigh's BART analysis states (p3–5) that the designer of the lime spray drying system indicates that this system is adequately sized and sufficient to control SO_2 to 125 ppm.

Source 321AI) as well as one other large boiler, four package boilers, and miscellaneous small units at its Eastman Business Park in Monroe County, in the city of Rochester. New York has determined that Boilers 41, 42 and 43 as well as the four package boilers and the miscellaneous small (non-boiler) units are BART eligible units. The most significant BART eligible units (based upon emissions of SO_2, NO_X and PM) are Boilers 41, 42 and 43. The remaining BART eligible units have smaller emissions than Boilers 41–43 and the visibility impacts are small. Each of the three large BART eligible boiler units are used for generating steam and electricity for the Kodak facility. Each of the three units are cyclone type boilers that combust bituminous coal with a maximum sulfur content of 2.5%. The boilers are also capable of combusting Number 6 fuel oil with up to 1.5% sulfur content. Each of the three boiler units are equipped with electrostatic precipitators (ESP) to control PM emissions and natural gas reburn to control emissions of NO_X and SO_2. Kodak submitted a BART determination to New York and the State agreed with the owner's recommendations.

A. Boilers 41, 42, 43

Kodak provided a five factor BART analysis dated September 29, 2010 and a supplemental five factor analysis dated October 11, 2012. Kodak concluded that BART for these three boilers are as follows: (1) Boiler 41 is to be permanently retired; (2) Boiler 42 will either permanently retire or repower with natural gas; and (3) Boiler 43 will meet current permit emission limits, given the likelihood that Boiler 43 will install emission control equipment, as required, to comply with EPA's Boiler MACT rule. Typical controls to meet Boiler MACT requirements may be the installation of a dry lime injection system for acid gas (e.g., hydrogen chloride) and a fabric filter for PM control. A lime injection system designed for acid gas removal will also typically reduce SO_2 emissions. Since EPA is currently reconsidering the Boiler MACT rule,[20] it is uncertain what the MACT compliance date and emission limits will be.

[20] ''National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters,'' published March 21, 2011 (76 FR 15608). Also referred to as 40 CFR part 63, subpart DDDDD. This rule is in effect but under reconsideration. EPA plans to issue a revised Boiler MACT rule in the spring of 2012. On February 7, 2012, EPA notified owners of affected sources that the agency would not take enforcement action for violations of notification requirements for the Major Source Boiler rule issued in March 2011.

Therefore New York proposes in its draft Title V permit, issued for public comment on April 4, 2012, that the final BART requirements and compliance dates are as follows:

—(1) Boiler 41 is to permanently retire by December 31, 2013; and

—(2) Boiler 42 is to either permanently retire or repower by the Boiler MACT compliance date but not later than August 16, 2017. New York's draft Title V permit does not include any emission limits and

—(3) for Boiler 43, New York's draft Title V permit reiterates the following current emission limits as BART: (a) SO_2: Fuel sulfur limits for coal at 2.5% and for oil at 1.5%; (b) NO_X: 0.60 lb/mm BTU; (c) PM: 0.24 lb/mm BTU when combusting coal and 0.10 lb/mm BTU when combusting fuel oil.

EPA has reviewed New York's draft Title V permit and in a letter dated April 11, 2012, EPA states that the agency agrees with the permit's BART requirements except that an emission limit for NO_X is required for Boiler 42 should Kodak decide to repower this boiler with natural gas. EPA's comment letter to New York requires that the NO_X emission limit be set at 0.20 lb/mm BTU. This is the required limit, starting on July 1, 2014, for a very large gas/oil fired cyclone boiler established by New York's adopted regulation Subpart 227–2 (Reasonably Available Control Technology (RACT) for Major Sources on Oxides of Nitrogen (NO_X)). Subpart 227–2 requires compliance with this limit on 24-hour basis during the ozone season and on a 30-day rolling average during the non-ozone season.

Should Boiler 42 repower with natural gas, EPA is not requiring emission limits for SO_2 and PM. New York has stated that it does not include emission limits for SO_2 and PM for gas fired boilers since these emissions are small and limiting these contaminants is not practically enforceable. New York estimates that if this boiler repowers with natural gas, the emission reductions will be about 4591 tpy SO_2 (99% reduction), 220 tpy PM (90% reduction), and 607 tpy NO_X (67% reduction). EPA agrees that New York's analysis is reasonable and therefore EPA is not requiring emission limits for SO_2 and PM if Boiler 42 repowers with natural gas.

Since New York's draft Title V permit does not include an emission limits for NO_X for Boiler 42, EPA proposes to disapprove New York's BART determination for this boiler except that EPA is approving the draft compliance date for either retiring or repowering. EPA proposes a federal plan establishing a NO_X emission limit of 0.20 lb/mm BTU if Boiler 42 is repowered with natural gas.

Kodak's BART analysis for Boiler 43 included an evaluation of selective catalytic reduction (SCR) to reduce NO_X emission by almost 67% to reach an emission limit of approximately 0.20 lb/mm BTU. Kodak's evaluation indicated that it is cost effective ($5,358/ton) to install SCR to reduce NO_X emissions by 67% at this cyclone type boiler. However Kodak's visibility analysis indicates that the visibility improvement at the Lye Brook Class I area is about 0.254 dv (8th high) and 0.273 dv (8th high) cumulative at seven Class I areas even when full Boiler MACT controls (lime scrubber and a fabric filter) and SCR are evaluated together. Since the visibility improvement is small, EPA agrees with Kodak's evaluation that the current control technology (natural gas reburn) and limits summarized above for NO_X represent BART for Boiler 43.

Kodak's BART analysis for Boiler 43 also included an evaluation of lime spray dryer absorber (SDA) to reduce SO_2 emission by 90%. Lime SDA or an equal control technology is what may be required to meet the future Boiler MACT requirement for removal of the acid gas such as hydrogen chloride (HCl). Kodak's evaluation indicated that it is cost effective ($788/ton) to install such a control to remove SO_2 emissions. However, as indicated above for the SCR evaluation, Kodak's expected visibility analysis on a cumulative basis is only 0.273 dv (8th high) when SDA and SCR controls are evaluated together. Since this visibility improvement is small, EPA agrees with Kodak's evaluation and agrees that the current control limits for SO_2 summarized above represents BART for Boiler 43.

Kodak's BART analysis for Boiler 43 did not include an evaluation of additional PM controls beyond the existing electrostatic precipitators. When the future Boiler MACT is implemented, the typical control retrofit will be the installation of a fabric filter, especially if a dry lime scrubber is installed. EPA agrees with Kodak's evaluation and agrees that the current control limits summarized above for PM represent BART for Boiler 43.

B. Four Package Boilers and Miscellaneous Small Sources

New York has determined that four package boilers and numerous small (non-boiler) miscellaneous sources at the Kodak facility are BART eligible. Kodak conducted visibility modeling to demonstrate that the four BART eligible

package boilers, having low emissions, had visibility impacts below 0.10 dv in Class I areas. The largest emissions from the numerous small non-boiler units were comparable to the emissions from the package boilers but were emitted from much shorter stacks. New York concluded therefore that these numerous small sources would have similar minimal visibility impacts on downwind Class I areas.

With respect to the other smaller emission sources, EPA's BART Guidelines provide for exempting a BART-eligible source from being subject to BART if the source's impact on visibility impairment from SO_2, NO_X, and PM at any Class I area is de minimis. New York's rule established de minimis in this case as less than 0.1 deciviews. Analysis and modeling of the four packaged boilers and small numerous miscellaneous sources demonstrated maximum impacts of less than 0.10 dv. Therefore New York determined these units have negligible impacts on visibility and exempted them from further BART analysis. Since EPA's BART Guidelines for exempting a BART-eligible source applies to the entire facility and not individual units, and EPA did not set a specific visibility level as a cutoff for a required BART analysis, EPA does not agree that these units are exempted from a BART analysis. However, EPA agrees with New York that a study of possible BART controls for these miscellaneous sources with negligible visibility impacts would only result in the conclusion that BART control is economically infeasible on a dollar per deciview basis. Therefore EPA proposes to accept New York's determination that current operations with no additional control is BART.

The aforementioned BART requirements for Boilers 41, 42 and 43 are included in New York's draft Title V permit including requirements for monitoring, record keeping and reporting and includes compliance dates as indicated above. New York expects to finalize the draft Title V permit and to submit it as a SIP revision for EPA approval by mid-2012.

In addition, as discussed above, EPA is proposing a FIP for establishing a NO_X emission limit of 0.20 lb/mm BTU for Boiler 42 should Kodak decide to repower this boiler with natural gas. The compliance date is by the Boiler MACT compliance date but not later than August 16, 2017.

In summary, EPA is proposing partial approval and partial disapproval of New York's BART determinations for Boilers 41, 42 and 43 at Kodak's Eastman Business Park facility. EPA is proposing to approve New York's BART determination for Boilers 41 and 43 and the compliance date for Boiler 42 to either permanently retire or repower because this BART determination was conducted in a manner consistent with EPA's Guidelines. EPA is proposing to disapprove a portion of New York's BART determination for Boiler 42 because it does not include an emission limit for NO_X should this boiler be repowered with natural gas.

International Paper Ticonderoga Mill

The International Paper Company operates the Ticonderoga Mill, a Kraft Paper Mill, in Essex County. BART-eligible emission units at the Ticonderoga Mill are a Power Boiler and a Recovery Boiler. New York determined other smaller emission sources at the Mill consisting of a smelt dissolving tank, a lime kiln, and PM emission sources (a starch silo and two wood chip cyclones) to be exempt from further BART analysis based on modeling results showing that these units have less than 0.1 deciview impacts.

The power boiler is rated at 855 mmBTU/hr heat input and designed to combust wood residue and No. 6 fuel oil at 1.5% sulfur and typically operates with a fuel mix of 80% oil and 20% wood/bark. The power boiler is currently equipped with low NO_X burners, a wet scrubber and a multicyclone unit and subject to SO_2, NO_X and PM emission limits as a result of BACT, RACT, MACT and New York State regulations. The recovery boiler is a kraft recovery furnace used to recover chemicals from spent pulping liquor and to produce steam for the mill. The recovery boiler processes black liquor and combusts No. 6 fuel oil as an auxiliary fuel less than 10% of the time. The boiler operates with a three-level staged combustion air supply system and an electrostatic precipitator control.

A. Power Boiler

The power boiler currently operates with a wet-alkaline sodium hydroxide scrubber to control SO_2 emissions at a rate of approximately 65 percent efficiency. New York identified wet or dry scrubbing, the use of a lower sulfur fuel oil and combustion of natural gas as potential control technologies in the reduction of SO_2 emissions from the power boiler. The use of natural gas was not feasible due to the 70 miles distance to the nearest gas pipeline. Using a lower sulfur content fuel oil was shown to result in emission rates at or above the existing 309 lb/hr emission rate. In addition, the BART determination demonstrated insignificant visibility improvement (from 0.02 to 0.07 deciviews) with any lowering of the sulfur fuel oil, and any upgrades or improved operation of the existing control devices.

New York determined that current operation of the wet-alkaline sodium hydroxide scrubber and the existing SO_2 emission limit of 309 lb/hr on a 24-hour rolling average (approximately 1,350 tons per year) to be BART for the power boiler. In the future, the boiler will need to comply with the ICI Boiler MACT acid gas control requirements. In response to EPA and FLM comments, New York also analyzed increasing the rate of caustic to the existing wet scrubber as a potential control technology for addressing BART. While this alternative is technically feasible and appears to be cost-effective, it results in an insignificant visibility improvement ranging from 0.02 to 0.11 deciviews at the Lye Brook Wilderness Area, the closest Class I Area. In addition, any physical modifications to the scrubber would adversely affect PM control. Therefore, New York determined that existing controls and current emission limits represent BART for the control of SO_2 emissions from the power boiler.

The power boiler presently operates with low NO_X burners, over fired air and flue gas recirculation. The existing emission limit for NO_X emissions is 0.25 lb/mmBTU (approximately 936 tons per year). The boiler is also subject to 40 CFR 63 subpart DDDDD for Industrial, Commercial and Institutional Boilers and Process Heaters which may require additional emissions monitoring and control in the future. The BART determination considered lowering the emission rate to 0.20 lb/mmBTU and 0.15 lb/mmBTU; however these emission rates were shown to result in an insignificant visibility improvement. Meeting a 0.20 lb/mmBTU emission rate resulted in maximum and eighth-highest visibility improvements of only 0.08 to 0.09 dv and 0.03 to 0.04 dv, respectively. Meeting a 0.15 lb/mmBTU emission rate resulted in maximum and eighth-highest visibility improvements of 0.17–0.18 dv and 0.07 dv, respectively. New York's BART determination notes that EPA's BART rule did not set specific presumptive NO_X limits for oil-fired boilers, but should generally consider ''current combustion control technology.''

New York determined that current operation of the low NO_X burners, over fired air and flue gas recirculation controls and the existing NO_X emission limit of 0.25 lb/mmBTU to be BART for the power boiler. In addition the power boiler will need to comply with the ICI Boiler MACT and the Department's NO_X

RACT regulation. Under EPA Guidance, states have wide discretion as to how they assess the BART five factors. Although EPA does not generally recommend that states rely solely on the visibility improvement consideration in making BART determinations, EPA does not believe that broader analysis of the costs and visibility benefits associated with installation of other post-combustion controls, such as SNCR and SCR, would have resulted in a different BART determination in this case. EPA proposes to find the current controls as being sufficient for BART is reasonable. For informational purposes, EPA notes that separate from International Paper's BART analysis, International Paper also evaluated possible controls to meet New York's NO_X RACT requirements. Based on International Paper's January 2, 2012 analysis, SCR was found to not be technically feasible. SNCR would only achieve a 21% emission reduction from the current potential emission rate of 0.25 lb/mmBTU and therefore was not cost-effective.

Filterable PM emissions from the power boiler are controlled by a multicyclone and the wet scrubber. Filterable PM emissions are limited to 0.10 lb/mmBTU. The maximum modeled visibility impact on a Class I area due to PM is 0.03 dv. Additional PM reductions are expected in the future to be required to meet new MACT standards. The proposed Industrial Commercial Institutional Boilers and Process Heaters MACT standard (40 CFR 63 subpart DDDDD) that would apply to the Power Boiler is 0.02 lb/mmBTU. New York found that PM emissions from the power boiler are low and have minimal impact on visibility.

B. Recovery Boiler

Operation of the recovery boiler differs from that of conventional steam boilers in that the primary objective is to recover and re-use the sulfur. Proper operation of a recovery boiler itself results in inherent control of SO_2 emissions. Additionally, this unit is a non-direct evaporation recovery furnace which inherently results in low SO_2 emissions. The available retrofit technologies for SO_2 control from kraft mill recovery boilers are staged combustion systems and wet scrubbers. The recovery boiler is already equipped with a three-level staged combustion air control system. New York determined it is technically infeasible to install a wet scrubbing device downstream of the existing ESP. There are only three recovery boilers in the U.S. equipped with wet scrubbers in addition to ESPs. New York determined that current operation of the three-level staged combustion air control system with ESPs be considered as BART for SO_2 emissions for the recovery boiler. EPA proposes to find that other control technologies were not found to have been applied to other recovery boilers, and the current controls of the recovery boiler could be considered the maximum control for BART with a permitted emission limit of 4 parts per million dry volume.

The majority of NO_X formed in the recovery boiler is believed to be primarily fuel NO_X due to the low temperatures in the boiler's combustion zone. Fuel NO_X emissions from recovery furnaces are typically low due to the low nitrogen content of black liquor solids. The boiler's three-level staged combustion system can also be operated to minimize NO_X formation/emissions. New York considered other potential NO_X control technologies to be staged combustion systems, selective catalytic reduction (SCR), selective non-catalytic reduction (SNCR), low NO_X burners, and flue gas recirculation (FGR). Based on the unique nature of recovery boiler operation, each of these traditional boiler controls was ruled out as being technically infeasible. New York determined compliance with BART for NO_X is the currently installed three-level staged combustion air control system with ESPs. The current permitted NO_X emission rate for the Recovery Boiler is 100 ppm (by volume) corrected to 8% O_2. Since there have been no applications of SCR or SNCR on recovery boilers in the United States, EPA proposes to find the current controls as being sufficient for BART is reasonable. Particulate emissions from the recovery boiler are currently controlled with a three-chamber ESP. In addition to ESPs, New York considered wet scrubbers and fabric filters as potential PM controls, however it is technically infeasible to install a wet scrubber downstream of the existing ESP on the recovery boiler, and fabric filters have not been applied to any recovery boilers at kraft pulp mills. The recovery boiler complies with the Chemical Recovery MACT standard (40 CFR 63, subpart MM). Therefore New York determined that current PM controls and emission limits for the recovery boiler satisfy BART. Since EPA states in its BART rule, ''* * * you may rely upon MACT standards for purposes of BART,'' EPA proposes to find the current controls as being sufficient for BART is reasonable.

With respect to the other smaller emission sources, EPA's BART Guidelines provide for exempting a BART-eligible source from being subject to BART if the source's impact on visibility impairment from SO_2, NO_X and PM at any Class I area is de minimis. New York's rule established de minimis in this case as less than 0.1 deciviews. Modeling of the smelt dissolving tank, lime kiln, and PM emission sources demonstrated maximum impacts of 0.017 dv, 0.001 dv and 0.008 dv, respectively. Therefore New York determined these units have negligible impacts on visibility and exempted them from further BART analysis. Since EPA's BART Guidelines for exempting a BART-eligible source applies to the entire facility and not individual units, and EPA did not set a specific visibility level as a cutoff for a required BART analysis, EPA does not agree that these units are exempted from a BART analysis. However, EPA agrees with New York that a study of possible BART controls for these miscellaneous sources with negligible visibility impacts would only result in the conclusion that BART control is economically infeasible on a dollar per deciview basis. The highest emitting of these smaller sources, the smelt dissolving tank, is already equipped with a wet scrubber and meets the MACT standard for PM. Therefore, EPA proposes to accept New York's determination that current operations with no additional control is BART.

EPA has reviewed New York's analyses for all of the International Paper BART-eligible sources and concluded they were conducted in a manner consistent with EPA's BART Guidelines. EPA proposes to approve New York's BART determinations for the International Paper facility and specifically proposes to approve the following emission limits for the power boiler: 309 lbs SO_2/hr; 0.25 lbs NO_X/mmBTU; 0.1 lbs PM/mmBTU; and for the recovery boiler: 4 ppmdv total reduced sulfur; 100 ppmdv for NO_X; and 0.03 grains per dry standard cubic foot for PM. Though New York's Part 249 requires BART controls to be installed and implemented by January 1, 2014, International Paper must presently comply with these BART emission limits since they represent existing permit conditions.

EPA proposes approval of the International Paper BART determination as a revision to the SIP. If New York does not submit all of the BART determinations and associated documents and permits to EPA as source-specific SIP revisions, then this proposal also serves as EPA's proposed federal plan for determining BART for BART-eligible sources at International Paper.

In summary, all of the aforementioned BART requirements for each unit of all

19 BART sources are included in New York's draft or final Title V permits including requirements for monitoring, record keeping and reporting. Compliance is due by the effective date of the Title V permit. New York expects to finalize all draft Title V permits and to submit all final Title V permits as a SIP revision for EPA approval by mid-2012. Once the SIP revision is approved by EPA (EPA final action for all 19 BART sources is scheduled for August 16, 2012) the BART requirements for each unit become federally enforceable. Should New York not submit the final Title V permit for each unit in a timely manner, EPA proposes that the BART requirements be considered as federal requirements as part of a FIP as discussed above.

c. Enforceability of BART

New York's BART requirements must be included as operating permit conditions in accordance with 40 CFR part 70, and the State regulations promulgated at 6 NYCRR Part 249. All of the BART facilities submitted permit modification applications to incorporate the BART requirements. New York has approved the permit modifications for National Grid's EF Barrett Power Station, National Grid's Northport Power Station, Con Ed's 59th Street Station, NRG's Arthur Kill's Generating Station, TC Ravenswood's Ravenswood Generating Station, Con Ed's Ravenswood Steam Plant, Dynegy's Roseton Generating Station, Holcim US's Catskill Plant, Lafarge Building Materials' Ravena Plant, International Paper's Ticonderoga Mill, Lehigh Northeast Cement's Glens Falls Plant, Alcoa Massena Operation's West Plant, Johnstown BPU's Samuel A Carlson Generating Station, and has proposed the permit modifications for GenOn's Bowline Generating Station, Dynegy's Danskammer Generating Station, Owens Corning's Delmar Plant, NRG's Oswego Harbor Power, GDF Suez's Syracuse Energy Corporation, Eastman Kodak/Duke Energy's Kodak Park Division. When all permit modifications are completed, New York will submit all of the BART determinations and associated documents and permits to EPA as source-specific SIP revisions.

EPA has reviewed New York's BART determinations for all of the BART eligible sources, including all supporting documentation, information and proposed permit modifications. New York has requested public comment on the proposed permit modifications, which identify the required BART controls, and in many cases the comment periods have closed. New York is in the process of addressing any comments received and issuing the permit modifications in final form. EPA proposes in the alternative to approve New York's BART determinations and emissions limits should New York submit final permit modifications to EPA as SIP revisions and the revisions match the terms of our proposed FIP. EPA is proposing approval of New York's BART determinations because they were conducted in a manner consistent with EPA's BART Guidelines. In the event New York does not submit a SIP revision with final permit modifications for all BART sources, EPA will publish a final rulemaking with a FIP for those BART sources, as proposed in this action.

Should New York submit all of the final BART permit modifications as a SIP revision, and the revisions match the terms of our proposed FIP, EPA proposes to approve New York's BART requirements based on the BART determinations discussed above and the respective BART limitations on emissions, source operation and fuel use. New York's BART determinations contain the appropriate regulatory requirements related to monitoring, recordkeeping, and reporting for the BART controls on the sources. Lastly, New York's BART determinations require BART controls be installed and in operation as expeditiously as practicable, but no later than five years after the date of EPA approval of the Regional Haze SIP, as required in the CAA and in the RHR.

d. New York's Part 249—Best Available Retrofit Technology (BART)

On August 2, 2010, New York submitted to EPA as a revision to its SIP, rule changes to Part 249 ''Best Available Retrofit Technology (BART)'' and amendments to Part 200 ''General Provisions'' of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR). New York completed all the administrative requirements for these rule changes, including a public hearing and response to comments. The effective date for Part 249 and amendments to Part 200 is May 6, 2010.

Part 249 was adopted pursuant to the Clean Air Act Section 169A and the federal Regional Haze Rule to reduce the emissions of pollutants which contribute to regional haze in Federal Class I areas. New York was obligated to promulgate Part 249 in order to require New York sources which contribute to haze issues in Class I areas in downwind states to control emissions which contribute to haze. Part 249 required BART eligible facilities to perform an analysis of potential controls for each visibility-impairing pollutant. The analysis of controls was due to New York by October 1, 2010. The compliance date contained in Part 249 is January 1, 2014—within EPA's BART Guidance for compliance within five years of EPA's approval of the state's Regional Haze SIP. Part 249 also provides that each BART determination established by New York will be submitted to EPA for approval as a revision to the SIP.

New York completed all the administrative requirements for this rule, including a public hearing and addressed the public comments. EPA has evaluated New York's BART rule submittal for consistency with the Clean Air Act, EPA regulations, and EPA policy and the rule meets administrative requirements. Therefore, EPA proposes to approve New York's Part 249 as part of the SIP.

C. Consultation With States and Federal Land Managers

On May 10, 2006, the MANE–VU State Air Directors adopted the Inter-RPO State/Tribal and FLM Consultation Framework that documented the consultation process within the context of regional haze planning, intended to create greater certainty and understanding among RPOs. MANE–VU States held ten consultation meetings and/or conference calls from March 1, 2007 through March 21, 2008. In addition to MANE–VU members attending these meetings and conference calls, participants from VISTAS, Midwest RPO, and the relevant Federal Land Managers also attended. In addition to the conference calls and meeting, the FLMs were given the opportunity to review and comment on each of the technical documents developed by MANE–VU. No additional measures beyond those developed as part of the MANE–VU ''ask'' were recommended by other states or the FLMs.

New York State provided the FLMs a copy of the draft SIP. The FLM's comments and New York State's responses are included in Appendix B, Summary of Federal Land Manager Comments and Responses. New York committed to coordinate and consult with the FLMs on implementation of emission strategies, by providing summaries of major new source permits, upcoming rulemakings that may contribute to visibility impairment, and any revisions to the haze plans. Based on these actions and commitments, EPA has determined that New York has fulfilled the requirements for consultation with the FLMs. In addition,

in New York's attempts to implement the MANE–VU emission control agreements, New York fulfills the requirement for consultation with states with Class I areas.

New York State held public hearings on this proposed SIP revision, its BART rule and implementation of New York's legislation on sulfur content in fuels. The hearings occurred in Albany, Avon and New York City on the first three days in December. Written comments relevant to the proposal were accepted through December 24, 2009. The State responded to the comments in its public comments document. Comments came from the EPA, potential BART sources and organizations of industry groups.

D. Periodic SIP Revisions and Five-Year Progress Reports

In Section 11.0 of its haze SIP, New York commits to revise and submit a regional haze implementation plan by July 31, 2018 to address the next ten years of progress toward the national goal in the Act of eliminating manmade haze by 2064, and to submit a plan every ten years thereafter, in accordance with the requirements listed in 40 CFR 51.308(f) of the Federal rule for regional haze. New York commits to submitting the required Mid-Course Review report every five years after the initial submittal of the haze SIP. New York's commitment includes continuing to consult with the FLMs on the implementation of Section 51.308 and this SIP, including development and review of SIP revisions and five-year progress reports, and on the implementation of other programs affecting the impairment of visibility in Class I areas. Finally, New York commits to meet the required periodic updates of the emission inventory as required under 51.308(d)(4)(v).

Since there are no Class I areas in the State, New York does not have to address the RAVI and monitoring strategy requirements of the RHR.

V. What action is EPA proposing to take?

EPA is proposing to partially approve and partially disapprove the revision to the New York SIP addressing regional haze submitted on March 15, 2010, and supplemented on August 2, 2010. EPA proposes to disapprove the following BART determinations:

- New York's SO_2 BART determinations and emissions limits for Roseton Units 1 and 2.
- New York's SO_2 BART determinations and emissions limits for Danskammer Unit 4.
- New York's SO_2, NO_X and PM emissions limits for Kodak's Boiler 42.

EPA proposes to disapprove the following facility BART determinations and emission limits because while New York has proposed permit modifications, New York has not issued final permit modifications or submitted them to EPA as a SIP revision: Bowline Point Generating Station; Danskammer Generating Station; Owens Corning Delmar Plant; Oswego Harbor Power; Syracuse Energy Corporation; Kodak Park Division.

EPA proposes to disapprove the following facility BART determinations and emission limits because New York has not submitted final permit modifications to EPA as a SIP revision: EF Barrett Power Station; Northport Power Station; 59th Street Station; Arthur Kill Generating Station; Ravenswood Generating Station; Ravenswood Steam Plant; Roseton Generating Station; Holcim (US) Inc—Catskill Plant; Lafarge Building Materials; International Paper Ticonderoga Mill; Lehigh Northeast Cement; ALCOA Massena Operations (West Plant); Samuel A Carlson Generating Station.

EPA is proposing a FIP to address the deficiencies identified in our proposed partial disapproval of New York's Regional Haze SIP. In lieu of this proposed FIP, or a portion thereof, we are proposing approval of a SIP revision if the State submits such a revision in a timely way, and the revision matches the terms of our proposed FIP, or relevant portion thereof.

EPA proposes to approve the remaining aspects of New York's Regional Haze SIP revision as follows: New York's determination under the reasonable progress requirements that all measures found to be reasonable have been enacted and implemented; New York's Long Term Strategy, will be approvable, only if New York submits all of the final permit modifications in a timely manner, and with the level of control in EPA's proposed FIP; New York's SIP revision consisting of New York's 6 NYCRR Part 249.

EPA proposes in the alternative to approve all of the facility BART determinations and emissions limits should New York submit final permit modifications to EPA as SIP revisions, and the revisions match the terms of our proposed FIP.

EPA is taking this action pursuant to those provisions of the Act. EPA is soliciting public comments on the issues discussed in this document and will consider these comments before taking final action.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

This proposed action is not a ''significant regulatory action'' under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011). As discussed in detail in section C below, the proposed FIP applies to only nine facilities. It is therefore not a rule of general applicability.

B. Paperwork Reduction Act

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. Under the Paperwork Reduction Act, a ''collection of information'' is defined as a requirement for ''answers to * * * identical reporting or recordkeeping requirements imposed on ten or more persons. * * *'' 44 U.S.C. 3502(3)(A). Because the proposed FIP applies to just nine facilities, the Paperwork Reduction Act does not apply. See 5 CFR 1320(c).

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. The OMB control numbers for our regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant

economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's proposed rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this proposed action on small entities, I certify that this proposed action will not have a significant economic impact on a substantial number of small entities. The Regional Haze FIP that EPA is proposing for purposes of the regional haze program consists of imposing federal controls to meet the BART requirement for SO_2, NO_X, and PM emissions on specific units at nine facilities in New York. The net result of this FIP action is that EPA is proposing direct emission controls on selected units at only nine facilities. The facilities in question are either large electric generating plants or large industrial boilers that are not owned by small entities, and therefore are not small entities. The proposed partial approval of the SIP, if finalized, merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. *See Mid-Tex Electric Cooperative, Inc.* v. *FERC,* 773 F.2d 327 (DC Cir. 1985)

D. Unfunded Mandates Reform Act (UMRA)

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more (adjusted for inflation) in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 of UMRA do not apply when they are inconsistent with applicable law. Moreover, section 205 of UMRA allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Under Title II of UMRA, EPA has determined that this proposed rule does not contain a Federal mandate that may result in expenditures that exceed the inflation-adjusted UMRA threshold of $100 million by State, local, or Tribal governments or the private sector in any 1 year. In addition, this proposed rule does not contain a significant Federal intergovernmental mandate as described by section 203 of UMRA nor does it contain any regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

Federalism (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.'' Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely addresses the State not fully meeting its obligation to prohibit emissions from interfering with other states measures to protect visibility established in the CAA. Thus, Executive Order 13132 does not apply to this action. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled *Consultation and Coordination with Indian Tribal Governments* (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' This proposed rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments. Thus, Executive Order 13175 does not apply to this rule. EPA specifically solicits additional comment on this proposed rule from tribal officials.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045: *Protection of Children from Environmental Health Risks and Safety Risks* (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be economically significant as defined under Executive Order 12866; and (2) concerns an environmental health or safety risk that we have reason to believe may have a

disproportionate effect on children. EPA interprets E.O. 13045 as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the E.O. has the potential to influence the regulation. This action is not subject to E.O. 13045 because it implements specific standards established by Congress in statutes. However, to the extent this proposed rule will limit emissions of SO_2, NO_X, and PM the rule will have a beneficial effect on children's health by reducing air pollution.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, EPA must consider and use ''voluntary consensus standards'' (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical.

The EPA believes that VCS are inapplicable to this action. Today's action does not require the public to perform activities conducive to the use of VCS.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994), establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

We have determined that this proposed rule, if finalized, will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. This proposed rule limits emissions of SO_2, NO_X, and PM from nine facilities in New York. The partial approval of the SIP, if finalized, merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law.

List of Subjects in 40 CFR Part 52

Air pollution control, Environmental protection, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: April 16, 2012.

Judith A. Enck,

Regional Administrator, Region 2.

Part 52, chapter I, title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart HH—New York

2. New § 52.1686 is added to read as follows:

§ 52.1686 Federal implementation plan for regional haze.

(a) *Applicability.* This section applies to each owner and operator of the following electric generating units (EGUs) and large industrial boilers in the State of New York: Danskammer Generating Station, Unit 4; Roseton Generating Station, Units 1 and 2; Syracuse Energy Corporation, Unit 1; Bowline Point Generating Station, Units 1 and 2; Eastman Kodak Business Park, Units 41, 42, and 43; Delmar Plant, Units EU2, EU3, EU12, EU13 and EU14; Oswego Harbor Power, Units 5 and 6; and Ravenswood Generating Station, Units 10, 20 and 30; EF Barrett Power Station, Northport Power Station, 59th Street Station, Arthur Kill Generating Station, Ravenswood Steam Plant, Roseton Generating Station, Holcim Catskill Plant, Lafarge Building Materials, International Paper Ticonderoga Mill, Lehigh Northeast Cement Plant, ALCOA Massena Operations (West Plant), Samuel A Carlson Generating Station.

(b) *Definitions.* Terms not defined below shall have the meaning given them in the Clean Air Act or EPA's regulations implementing the Clean Air Act. For purposes of this section:

Boiler operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the EGU, boiler or emission unit. It is not necessary for fuel to be combusted for the entire 24-hour period.

Continuous emission monitoring system or CEMS means the equipment required by this section to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of SO_2, NO_X, and PM emissions, other pollutant emissions, diluent, or stack gas volumetric flow rate.

SO_2 means sulfur dioxide.

NO_X means nitrogen oxides.

PM means particulate matter.

Owner/operator means any person who owns, leases, operates, controls, or supervises an EGU or boiler identified in paragraph (a) of this section.

Unit means any of the EGUs or boilers identified in paragraph (a) of this section.

(c) *Emissions limitations*—(1) The owners/operators subject to this section shall not emit or cause to be emitted SO_2, NO_X, and PM in excess of the following limitations, averaged over a rolling 30-day period unless otherwise indicated below:

Facilities	BART Unit	BART Controls/Limits		
		NO_X	SO_2	PM
Danskammer Generating Station—Dynegy.	4	0.12 lb/mm BTU, 24 hr avg ozone season, 30 day avg rest of yr. Compliance 7/1/2014.	Option 1: 0.50 lb/mm BTU, 24 hr avg. Compliance 7/1/2014. Option 2: 0.09 lb/mm BTU, 24 hr avg. Compliance 7/1/2014.	0.06 lb/mm BTU, 1 hr avg. Compliance 7/1/2014.
Roseton Generating Station—Dynegy.	1 & 2	0.20 lb/mm BTU, 24 hr avg ozone season, 30 day avg rest of yr.	0.55 lb/mm BTU, 24 hr avg.	0.10 lb/mm BTU.
Syracuse Energy Corporation—GDF Suez.	1	Retire 1/1/2014	Retire 1/1/2014	Retire 1/1/2014.
Bowline Point Generating Station—GenOn.	1 & 2	0.15 lb/mm BTU, 24 hr avg ozone season, 30 day avg rest of yr.	0.37% sulfur fuel oil	0.10 lb mm BTU.
Kodak Operations at Eastman Business Park—Kodak.	41	Retire 12/31/2013	Retire 12/31/2013	Retire 12/31/2013.
	42	Retire or repower with natural gas by the Boiler MACT compliance date but not later than 8/16/2017. 0.20 lb/mm Btu, 24 hr avg ozone season, 30 day avg rest of yr.	Retire or repower with natural gas by the Boiler MACT compliance date but not later than 8/16/2017.	Retire or repower with natural gas by the Boiler MACT compliance date but not later than 8/16/2017.
	43	0.60 lb/mm BTU, 24 hr avg ozone season, 30 day avg rest of yr.	Coal 2.5% sulfur Oil 1.5% sulfur.	Coal 0.24 lb/mm BTU, Oil 0.10 lb/mm BTU.
Owens Corning Delmar Plant—Owens Corning.	EU2, EU3, EU12, EU13 & EU14.	Emit <250 tons per year, cumulative.	Emit <250 tons per year, cumulative.	Emit <250 tons per year, cumulative.
Oswego Harbor Power—NRG.	5	383 tpy, 12 month rolling total.	0.75% sulfur fuel, 0.80 lb/mm BTU, 3 hr rolling avg.	0.10 lb/mm BTU.
	6	665 tpy, 12 month rolling total.	0.75% sulfur fuel, 0.80 lb/mm BTU, 3 hr rolling avg.	0.10 lb/mm BTU.
Ravenswood Generating Station—Trans Canada.	10, 20, 30	Natural gas primary fuel, 0.15 lb/mm BTU.	0.30% sulfur fuel oil	0.1 lb/mm BTU.
EF Barrett Power Station—NG.	2	0.10 lb/mm BTU, when firing natural gas and 0.20 lb/mm BTU when firing low sulfur fuel oil, both on a 24-hour avg.	0.37% sulfur fuel	0.10 lb/mm BTU.
Northport Power Station—NG.	1–3	0.10 lb/mm BTU, when firing natural gas and 0.20 lb/mm BTU when firing fuel oil, both on a 24 hr avg.	0.70% sulfur fuel	0.10 lb/mm BTU.
	4	0.10 lb/mm BTU, when firing natural gas and 0.20 lb/mm BTU when firing fuel oil, both on a 24 hr avg.	0.75% sulfur fuel	0.10 lb/mm BTU.
59th Street Station—Con Ed.	114 & 115	0.32 lb/mm BTU, 30-day rolling average.	0.30% sulfur fuel	0.10 lb/mm BTU, by stack tests.
Arthur Kill Generating Station—NRG.	30	Natural gas combustion, 0.15 lb/mm BTU, 24 hr avg ozone season, 30 day avg rest of yr.	Natural gas combustion 0.15 lb/MM BTU.	359 tpy.
Ravenswood Steam Plant—Con Ed.	2	0.32 lb/mm BTU, 30-day rolling average.	0.30% sulfur fuel	0.10 lb/mm BTU.
Catskill Plant—Holcim (US) Inc.	0KILN	Retire 2/13/2012	Retire 2/13/2012.	
Lafarge Building Materials	1 & 2	Retire 6/30/2015	Retire 6/30/2015	Retire 6/30/2015.
International Paper Ticonderoga Mill—International Paper.	Power	0.25 lb/mm BTU	309 lb/hr on a 24-hr rolling average.	0.10 lb/mm BTU.
	Recovery	100 ppm dry volume, corrected to 8% O_2.	4 ppm dry volume Total reduced sulfur.	0.03 grains per dry standard cubic foot.

Facilities	BART Unit	BART Controls/Limits		
		NO_X	SO_2	PM
Lehigh Northeast Cement—Lehigh Cement.	kiln	2.88 lb/ton clinker produced.	2.5 lb/mm BTU max, 1.9 lb/mm BTU on a 90-day average, 1.7 lb/mm BTU max on a 12 month rolling average, When CEMS certified: 5.10 lb/mm BTU daily, 3.8 lb/mm BTU on a 90-day average, 3.4 lb/mm BTU on a 12 month rolling average	0.03 lb/ton feed.
	Clinker cooler			0.10 lb/ton feed.
ALCOA Massena Operations (West Plant)—Alcoa.	Potlines	Emit ≤50 tpy	2.5% sulfur anode coke, 12 month rolling avg.	Emit ≤168 tpy PM–10.
	Baking furnaces	Emit ≤203 tpy	2.5% sulfur anode coke, 12 month rolling avg.	Emit ≤24 tpy PM–10.
	Boilers	0.30 lb/mm BTU	1.5% sulfur fuel	0.10 lb/mm BTU.
Samuel A Carlson Generating Station—Jamestown Board of Public Utilities.	12	Retire 1/1/2014	Retire 1/1/2014	Retire 1/1/2014.

(2) These emission limitations shall apply at all times, including startups, shutdowns, emergencies, and malfunctions.

(d) *Compliance date.* The owners and operators subject to this section shall comply with the emissions limitations and other requirements of this section by January 1, 2014 unless otherwise indicated in paragraph (c).

(e) *Compliance determination using CEMS*—(1) *CEMS.* At all times after the compliance date specified in paragraph (d) of this section, the owner/operator of each unit shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR part 75, to accurately measure SO_2, NO_X, and PM, diluent, and stack gas volumetric flow rate from each unit. The CEMS shall be used to determine compliance with the emission limitations in paragraph (c) of this section for each unit.

(2) *Method.* (i) For any hour in which fuel is combusted in a unit, the owner/operator of each unit shall calculate the hourly average SO_2, NO_X, and PM concentration in lb/MMBtu at the CEMS in accordance with the requirements of 40 CFR part 75. At the end of each boiler operating day, the owner/operator shall calculate and record a new average emission rate, consistent with paragraph (c) averaging period, in lb/MMBtu from the arithmetic average of all valid hourly emission rates from the CEMS for the current boiler operating day.

(ii) An hourly average SO_2, NO_X, or PM emission rate in lb/MMBtu is valid only if the minimum number of data points, as specified in 40 CFR part 75, is acquired by the SO_2, NO_X, or PM pollutant concentration monitor and the diluent monitor (O_2 or CO_2).

(iii) Data reported to meet the requirements of this section shall not include data substituted using the missing data substitution procedures of subpart D of 40 CFR part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR part 75.

(f) *Compliance determination using fuel certification*—

The owner or operator of each affected facility subject to a federally enforceable requirement limiting the fuel sulfur content may use fuel supplier certification to demonstrate compliance. Records of fuel supplier certification, as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable, shall be maintained and reports submitted as required under paragraph (h). In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g) *Compliance determination with an annual emission limit*—The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual emissions shall calculate the annual emissions individually for each fuel combusted, as applicable. The annual emission limitation is determined on a 12-month rolling average basis with a new annual emission limitation calculated at the end of the calendar month, unless a different reporting period is identified in paragraph (c).

(h) *Recordkeeping.* Owner/operator shall maintain the following records for at least five years:

(1) All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.

(2) All fuel supplier certifications and information identified in paragraph (f)(1), (2), (3), or (4) of this section, as applicable.

(3) Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 75.

(4) Records of all major maintenance activities conducted on emission units, air pollution control equipment, and CEMS.

(5) Any other records required by 40 CFR part 75.

(i) *Reporting.* All reports under this section shall be submitted to the Director, Division of Enforcement and Compliance Assistance, U.S. Environmental Protection Agency, Region 2, 290 Broadway, New York, New York 10007–1866.

(1) Owner/operator shall submit quarterly excess emissions reports no later than the 30th day following the end of each calendar quarter. Excess emissions means emissions that exceed the emissions limits specified in paragraph (c) of this section. The reports shall include the magnitude, date(s), and duration of each period of excess emissions, specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

(2) Owner/operator shall submit quarterly CEMS performance reports, to include dates and duration of each period during which the CEMS was inoperative (except for zero and span adjustments and calibration checks), reason(s) why the CEMS was inoperative and steps taken to prevent recurrence, any CEMS repairs or adjustments, and results of any CEMS performance tests required by 40 CFR part 75 (Relative Accuracy Test Audits, Relative Accuracy Audits, and Cylinder Gas Audits).

(3) When no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted during the reporting period, such information shall be stated in the report.

(4) Owner/operator shall submit semi-annual fuel certification reports no later than the 30th day following the end of each six month period.

(5) Owner/operator shall submit an annual emissions limitation calculation report no later than the 30th day following the end of the calendar year or quarter if a rolling average is required in paragraph (c).

(j) *Notifications.* (1) Owner/operator shall submit notification of commencement of construction of any equipment which is being constructed to comply with the NO_X emission limits in paragraph (c) of this section.

(2) Owner/operator shall submit semi-annual progress reports on construction of any such equipment.

(3) Owner/operator shall submit notification of initial startup of any such equipment.

(k) *Equipment operation.* At all times, owner/operator shall maintain each unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

(l) *Credible Evidence.* Nothing in this section shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with requirements of this section if the appropriate performance or compliance test procedures or method had been performed.

[FR Doc. 2012–9839 Filed 4–24–12; 8:45 am]

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