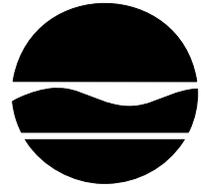


Department of Environmental Conservation  
Division of Air Resources



Joe Martens  
Commissioner

**NEW YORK  
STATE IMPLEMENTATION PLAN  
FOR THE  
INFRASTRUCTURE ASSESSMENT FOR  
NITROGEN DIOXIDE  
UNDER SECTIONS 110(a)(1) AND (2)  
OF THE CLEAN AIR ACT**

**FINAL PROPOSED REVISION**

**APRIL 2013**

New York State Department of Environmental Conservation  
*Andrew M. Cuomo, GOVERNOR*

*Joseph Martens, COMMISSIONER*

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# The New York State Department of Environmental Conservation's Infrastructure Assessment Pursuant to the Clean Air Act Sections 110(a)(1) and (2) as it Pertains to the 2010 NO<sub>2</sub> NAAQS

## Introduction:

On February 9, 2010, EPA strengthened its National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO<sub>2</sub>) by establishing a new, one hour primary NAAQS at the level of 100 parts per billion (ppb). Ensuring that ambient levels of NO<sub>2</sub> pollution remain below the 2010 standard is an important part of the EPA's commitment to a clean, healthy environment. This new standard will protect the public health by limiting exposures to short-term peak concentrations of NO<sub>2</sub> (which primarily occur near major roads) and by limiting community-wide NO<sub>2</sub> concentrations to levels below those that have been linked to respiratory-related emergency department visits and hospital admissions in the United States. In order to accomplish these goals, the new standard will modify the existing NO<sub>2</sub> monitoring network by requiring monitors in large urban areas and near major roads where the public might be exposed to unhealthy levels of NO<sub>2</sub>. The strengthened revision of the NAAQS also requires New York, as a partner with EPA in administering the Clean Air Act, to revise its State Implementation Plan (SIP).

On January 20, 2012, EPA completed the process of making area designations for the 2010 Primary Nitrogen Dioxide NAAQS, and made a determination that all of New York State would be designated as "unclassifiable/attainment." In making that determination, EPA noted that the available air-monitoring data from the years 2008-10 showed no violations of the new standard. In addition, no monitors indicating non-attainment were observed in the adjacent States of Connecticut and New Jersey as it affects the New York Metropolitan Area (NYMA).

Nevertheless, New York lacks the NO<sub>2</sub> monitoring data that meets EPA's monitoring requirements of "near road" and "community-wide" monitoring that is a key element of this NAAQS, hence the "unclassifiable/attainment" designation. New York does not, at this time, have a state-wide near-road monitoring network that meets the specific requirements under the new NAAQS that at least one monitor be located near a major road in urban areas with a population greater than or equal to 500,000 people, as well as having monitors located in other areas where maximum concentrations are expected.

EPA has not yet provided guidance to States pertaining to the CAA §110(a)(1) and (2) requirements for the NO<sub>2</sub> NAAQS; instead, it has advised States to use the October 14, 2011 guidance for the lead NAAQS in order to address the requirements of CAA §110(a)(1) and (2). Pursuant to that guidance, SIPs must include the following elements of CAA §110(a)(2) and meet the requirements of both CAA §110(a)(1) and (2):

SIP Element	CAA Section
Enforceable Emission Limitations and Other Control Measures	110(a)(2)(A)
Ambient Air Quality Monitoring, Compilation, Analysis and Reporting	110(a)(2)(B)
Programs for Enforcement, Prevention of Significant Deterioration (PSD), and New Source Review (NSR)	110(a)(2)(C)

SIP Element	CAA Section
Interstate Transport	110(a)(2)(D)
Assurance of Adequate Resources	110(a)(2)(E)
Stationary Source Monitoring System and Reporting	110(a)(2)(F)
Emergency Powers and Contingency Plans	110(a)(2)(G)
Authority for SIP Revisions for Revised NAAQS	110(a)(2)(H)
Authority for SIP Revisions for New Non-attainment Areas	110(a)(2)(I)
Consultation, Public Notification and Prevention of Significant Deterioration (PSD)/ Visibility	110(a)(2)(J)
Air Quality Monitoring and Reporting	110(a)(2)(K)
Permitting Fees	110(a)(2)(L)
Consultation/Participation with Affected Local Entities	110(a)(2)(M)

## Individual Infrastructure SIP Requirements:

### *Enforceable Emission Limitations and Other Control Measures: 110(a)(2)(A)*

*“Each such plan shall [. . .] include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter.”*

CAA §110(a)(2)(A) requires SIPs to include enforceable emission limits and other control measures, means or techniques, as well as schedules and timetables for compliance.

In the past, enforceable emission limitations and other control measures for ozone<sup>1</sup> in New York were developed for the 1990 one-hour and 1997 eight-hour ozone NAAQS, and were approved by EPA. These regulations control the emissions of nitrogen oxides (NO<sub>x</sub>) from stationary, area, and mobile sources and, therefore, serve as “enforceable emission limitations and other control measures, means, or techniques“ for NO<sub>2</sub>.

In addition, emissions have been controlled for both older sources, *e.g.*, Reasonably Available Control Technology (RACT) regulations, and new sources, *e.g.*, New Source Review (NSR) and Prevention of Significant Deterioration (PSD) requirements. The most recent regulations for these purposes were included in the eight-hour ozone SIP for the New York metropolitan area.

Enforceable emission limitations and other control measures for NO<sub>2</sub> in New York include the following (which is not intended to identify non-attainment area emission controls):

- 6 NYCRR Parts 243, 244, and 245 implement the Department of Environmental Conservation's (“Department”) *enforceable* plans to comply with the requirements of the federal CAIR rule;

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<sup>1</sup> NO<sub>2</sub> is a precursor to ozone.

- Part 243 establishes an ozone season NO<sub>2</sub> trading program that will be implemented in two phases, starting in 2009 and 2015. Part 243 will regulate the same large stationary sources that are currently subject to Part 204, "*NO<sub>2</sub> Budget Program*";
- Part 244 will establish an annual NO<sub>x</sub> trading program to reduce NO<sub>x</sub>.

The NO<sub>2</sub> trading programs will affect electric generating units (EGUs) by capping emissions. The requirements under these rules are crafted as enforceable emission limits on Title V permits for the subject facility, under New York’s version of the Clean Air Interstate Rule (“CAIR”).

6 NYCRR Parts 243 and 244 comply with 40 CFR Part 51.123, "*Findings and requirements for submission of State implementation plan revisions relating to emissions of oxides of nitrogen pursuant to the Clean Air Interstate Rule.*"

In addition, New York controls NO<sub>2</sub> emissions through other regulations. The following table summarizes how those additional regulations work to control NO<sub>2</sub> emissions in New York:

6 NYCRR Regulation Part	Summary
212	Imposes Reasonably Available Control Technology (RACT) on major stationary sources not otherwise covered by other regulations
217	Requires enhanced inspection and maintenance of light-duty motor vehicles
218	Establishes emission standards for motor vehicles and motor vehicle engines
219	Imposes controls on various incinerators
220	Imposes RACT on emissions from cement kiln stacks
224	Imposes controls on NO <sub>2</sub> emissions from nitric acid plants
227	Imposes RACT on stationary combustion installations
231	Implements New Source Review for new and modified facilities
249	Applies Best Available Retrofit Technology (BART) to any stationary source that has been determined to be BART-eligible and whose emissions require control

***Ambient Air Quality Monitoring, Compilation, Analysis and Reporting: 110(a)(2)(B)***

*“Each such plan shall [ . . . ] provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the Administrator.”*

New York is committed to operating an air quality monitoring network that complies with EPA requirements and to provide this data to EPA’s Air Quality System. New York measures air pollutants at more than 60 sites across the state, using continuous and/or manual instrumentation. These sites are part of the federally-mandated National Air Monitoring Stations Network (NAMS), and the State and Local Air Monitoring Stations (SLAMS) Network. Real time direct reading measurements include gaseous criteria pollutants (ozone, sulfur dioxide,

oxides of nitrogen, carbon monoxide), PM<sub>2.5</sub><sup>2</sup>, and meteorological data. In addition, the Department operates a toxics monitoring network which consists of eleven sites - two of which are part of the National Air Toxics Trends Stations (NATTS).

The near real-time data for gaseous pollutants and PM<sub>2.5</sub> are used for Air Quality Index (AQI) projections, and can be accessed by the public on the NYSDEC web site. New York also provides real-time data to EPA for AIRNow's live national ozone mapping. All ambient measurements undergo data validation and are subsequently submitted to EPA's Air Quality System (AQS) for public access.

As of July, 2007, each state (or where applicable, local) agency is required to "adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, CSN stations, state speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations."

New York prepares an Annual Monitoring Network Plan in partial fulfillment of these new requirements. The latest iteration, dated July 2, 2012, has been submitted to EPA. Should any changes be planned for the state's monitoring sites or the network plan, New York will provide notification to appropriate staff at EPA's Region 2 office.

To determine compliance with the new one-hour standard, the EPA is establishing new ambient air monitoring and reporting requirements for NO<sub>2</sub>:

- In urban areas, monitors are required near major roads as well as in other locations where maximum concentrations are expected.
- Additional monitors are required in large urban areas to measure the highest concentrations of NO<sub>2</sub> that occur more broadly across communities.
- Working with the States, EPA will site a subset of monitors in locations to help protect communities that are susceptible and vulnerable to NO<sub>2</sub>-related health effects.

EPA is setting new requirements for the placement of new NO<sub>2</sub> monitors in urban areas. These include:

### **Near Road Monitoring<sup>3</sup>**

- At least one monitor must be located near a major road in any urban area with a Core-Based Statistical Area<sup>4</sup> (CBSA) population greater than or equal to 500,000 people. A second monitor is required near another major road in areas with either:
  - Population greater than or equal to 2.5 million people, or
  - One or more road segments with an annual average daily traffic (AADT) count greater than, or equal to, 250,000 vehicles.

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<sup>2</sup> Fine particulate with a diameter less than 2.5 microns

<sup>3</sup> Federal Register / Vol. 75, No. 26 / Tuesday, February 9, 2010 / Rules and Regulations, p. 6508

<sup>4</sup> [http://ftp2.census.gov/geo/maps/metroarea/stcbsa\\_pg/Nov2004/cbsa2004\\_NY.pdf](http://ftp2.census.gov/geo/maps/metroarea/stcbsa_pg/Nov2004/cbsa2004_NY.pdf)

- These NO<sub>2</sub> monitors must be placed near those road segments ranked with the highest traffic levels by Annual Average Daily Traffic (“AADT”), with consideration given to fleet mix, congestion patterns, terrain, geographic location, and meteorology in identifying locations where the peak concentrations of NO<sub>2</sub> are expected to occur. Monitors must be placed no more than 50 meters (about 164 feet) away from the edge of the nearest traffic lane.
- EPA estimates that the new NO<sub>2</sub> monitoring requirements will result in a network of approximately 126 NO<sub>2</sub> monitoring sites near major roads in 102 urban areas.

### **Community Wide Monitoring**

- A minimum of one monitor must be placed in any urban area with a population greater than or equal to 1 million people to assess community-wide concentrations.
- EPA believes an additional 53 monitoring sites will be required to assess community-wide levels in urban areas.
- EPA also believes that some NO<sub>2</sub> monitors already in operation may meet the community-wide monitor siting requirements.

### **Monitoring to Protect Susceptible and Vulnerable Populations**

Working with the States, EPA Regional Administrators will site at least 40 additional NO<sub>2</sub> monitors to help protect communities that are susceptible and vulnerable to NO<sub>2</sub>-related health effects.

In the original rule, EPA proposed that all new NO<sub>2</sub> monitors must begin operating no later than January 1, 2013. On October 19<sup>th</sup>, 2012, the EPA proposed to revise the deadlines established in the NAAQS for NO<sub>2</sub> for the near-road component of the NO<sub>2</sub> monitoring network and to implement a phased deployment approach. This approach would create a series of deadlines that would make the near road NO<sub>2</sub> network operational between January 1, 2014, and January 1, 2017. This would replace the 2010 rule requirement that all new NO<sub>2</sub> monitors are required to begin operating no later than January 1, 2013. The EPA is also proposing to revise the approval authority for annual monitoring network plans for NO<sub>2</sub> monitoring.

The proposed regulation does not change the requirement for the number of monitors for any State, and is fully funded on a delayed schedule:

January 1, 2013: 1 <sup>st</sup> Site in MSAs <sup>5</sup>	population > 2.5 Million
January 1, 2014: Sites in MSAs	population > 1 Million
January 1, 2015: 2 <sup>nd</sup> Site in MSAs	population > 2.5 Million and Sites in MSAs >500,000 with AADT > 250,000
January 1, 2017: Sites in MSAs	population > 500,000

The new standard must be taken into account when permitting new or modified major sources of NO<sub>x</sub> emissions such as fossil-fuel fired power plants, boilers, and a variety of other manufacturing operations.

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<sup>5</sup> Metropolitan Statistical Areas

Based on the above criteria, New York intends on making the following changes to its monitoring network in order to meet the requirements of the new one-hour NAAQS for NO<sub>2</sub>:

<b>Designated Metropolitan Statistical Area</b>	<b>Recommended Monitoring</b>	<b>Existing Monitoring</b>
Buffalo-Niagara Falls Population: 1,124,309	1 Near-road and 1 Community-based required	1 Community-based Monitor
New York-Northern New Jersey-Long Island Population: 19,006,798	1 Near-road in NJ 1 Near road in Queens and 1 Community-based required	1 Community-based Monitor (NCore NO <sub>y</sub> provides a conservative approximation for NO <sub>2</sub> )
Albany-Schenectady-Troy Population: 853,919	1 Near-road required	None
Poughkeepsie-Newburgh-Middletown Population: 672,525	1 Near-road required	None
Rochester Population: 1,034,090	1 Near-road required and 1 Community-based required (will utilize NO <sub>y</sub> data for community-based requirement)	NCore NO <sub>y</sub> provides a conservative approximation for NO <sub>2</sub>
Syracuse Population: 643,794	1 Near-road required	None

***Programs for Enforcement, Prevention of Significant Deterioration (PSD), and New Source Review (NSR): 110(a)(2)(C)***

*“Each such plan shall [. . .] include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that [NAAQS] are achieved, including a permit program as required in parts C and D of this subchapter.”*

The CAA (§110(a)(2)(C)) requires States to include a program providing for enforcement of all SIP measures and the regulation of construction of new or modified stationary sources to meet PSD and Non-attainment New Source Review (NNSR) requirements; New York’s SIP currently includes NNSR requirements.

Environmental Conservation Law (“ECL”) §19-0305 authorizes the Commissioner of the Department of Environmental Conservation (“Commissioner”) to enforce the codes, rules and regulations of the Department established in accordance with Article 19. Since the SIP is a compilation of rules and regulations that have been duly promulgated by the Department in accordance with its statutory authority and consistent with the State Administrative Procedures Act, the Department has the authority to enforce all SIP measures.

New York has a SIP-approved PSD/NSR program under 6 NYCRR Part 231, “*New Source Review of New and Modified Facilities.*” Part 231 includes eight-hour ozone and PM<sub>2.5</sub> PSD and NNSR permitting requirements for major stationary sources in the State. The most recent revision to Part 231 also added greenhouse gases to the list of regulated contaminants.

PSD regulates major sources located in attainment areas, while NSR regulates major sources in nonattainment

areas.<sup>6</sup> The current NNSR permitting program remains in effect and continues to apply to the State's major stationary sources.

New York ensures that all applicable federal PSD requirements that are included in PSD permits are incorporated into Title V operating permits, and that all federally-enforceable requirements are applied and enforced. Title V of the CAA requires States to implement a permitting program for major stationary sources (implemented under 40 CFR Part 70). As such, §9-0311 of Article 19 of the ECL directs the Department to establish a permitting program to implement Title V of the CAA. The Department's permitting regulations are set forth in 6 NYCRR Part 201, "*Permits and Certificates*." Major sources of air pollution are covered by State Facility permits (Subpart 201-5) and Title V permits (Subpart 201-6). In addition, the Department has implemented a permitting program for minor sources of air pollution; these sources are covered by minor facility registrations (6 NYCRR Subpart 201-4).

With the above permitting requirements in place, New York affirms that the current NSR and PSD permitting programs continue to apply to the state's major stationary sources, and that the requirements for these programs are federally enforceable.

### ***Interstate Transport: 110(a)(2)(D)***

110(a)(2)(D)(i): *"Each such plan shall [...] contain adequate provisions: prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will:*

- *contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any such primary or secondary [NAAQS], or*
- *(II) interfere with measures required to be included in the applicable implementation plan for any other state under part C of this subchapter to prevent significant deterioration of air quality to protect visibility."*

In accordance with the EPA guidance issued on August 15, 2006,<sup>7</sup> States may continue to rely on their existing NNSR and PSD permitting programs to prevent significant deterioration of air quality within their own boundaries and in adjacent States.

However, EPA has not designated any areas in the country as non-attainment for NO<sub>2</sub>; likewise, there are no maintenance areas for attainment in the eastern United States – therefore, interstate transport of NO<sub>2</sub> is not a relevant issue for New York to the extent that it is an issue that must be addressed in the infrastructure SIP.

Nevertheless, New York affirms its commitment to the continued enforcement of all SIP measures and the regulation of construction of new or modified stationary sources to meet NNSR requirements and mitigate interstate transport of NO<sub>2</sub>. Again, New York will ensure that all applicable federal PSD requirements that are included in PSD permits are incorporated into Title V operating permits, and that all federally-enforceable requirements are applied and enforced. The discussion above, under §110(a)(2)(C), affirms that New York has

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<sup>6</sup> Major stationary sources are defined in Part 201 as sources with the potential to emit 100 tons per year (tpy) or more of NO<sub>x</sub> and 50 tpy of VOC (except in a severe ozone nonattainment area, where the thresholds are lowered to 25 tpy of NO<sub>x</sub> or VOC).

<sup>7</sup> U.S. EPA "Guidance for State Implementation Plan (SIP) Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards." August 15, 2006.

a SIP-approved PSD and NNSR permitting program that remains in effect and continues to apply to the State's major stationary sources.

In addition, in order to reduce concentrations of ozone and PM<sub>2.5</sub> in New York and downwind States, the Department revised 6 NYCRR Subpart 227-2, "*Reasonably Available Control Technology (RACT) for Major Facilities of Oxides of Nitrogen (NO<sub>x</sub>)*" in the year 2010. This regulation imposes NO<sub>x</sub> emission limits on seven categories of stationary combustion installations, lowered the size thresholds for two categories of sources, and increased the stringency of emission limits for six categories of sources.

Major facilities existing prior to June 1, 2010 must comply with the new NO<sub>x</sub> RACT emission limits which must be met by July 1, 2014. A summary of the NO<sub>x</sub> RACT emission limits in Subpart 227-2, expressed in pounds of NO<sub>x</sub> per million BTU's<sup>8</sup>, are as follows:

**Very Large Boilers:**  
*Boiler Configuration*

<b>Fuel Type</b>	<b>Tangential</b>	<b>Wall</b>	<b>Cyclone</b>	<b>Stokers</b>
<i>Gas Only</i>	0.08	0.08	na	na
<i>Gas/Oil</i>	0.15	0.15	0.43	na
<i>Coal Wet Bottom</i>	0.08	0.08	0.08	na
<i>Coal Dry Bottom</i>	0.08	0.08	na	0.08 <sup>9</sup>

**Large Boilers**

<b>Fuel Type</b>	<b>Emission Limit</b>
Gas only	0.06
Gas/Oil	0.15
Pulverized Coal	0.12
Coal	0.08 <sup>10</sup>

**Mid-Size Boilers**

<b>Fuel Type</b>	<b>Emission Limit</b>
Gas only	0.05
Distillate Oil/Gas	0.08
Residual Oil/Gas	0.20

<sup>8</sup> British Thermal Units

<sup>9</sup> This emission limit also applies to fluidized bed boilers that combust no more 30 percent other solid fuels (e.g. tire-derived fuel, waste wood), on a BTU basis.

<sup>10</sup> This emission limit also applies to fluidized bed boilers that combust no more 30 percent other solid fuels (e.g. tire-derived fuel, waste wood), on a Btu basis.

Based on the historic operation and compliance assumptions made by the Department, it is expected that the proposed NO<sub>x</sub> RACT limitations will result in NO<sub>x</sub> emission reductions of 28,796 tons per year, or 78.9 tons per day, from 2007 levels.

The Department has also promulgated rules for NO<sub>x</sub> RACT from Portland Cement Plants (6 NYCRR Subpart 220-1), Glass Plants (6 NYCRR Subpart 220-2), Asphalt Production (6 NYCRR 212.12), Minor Sources (6 NYCRR Subpart 227-3) and other general process emission sources (6 NYCRR 212.12). Preliminary inventory work shows that these additional control measures are expected to result in total NO<sub>x</sub> emissions of 49,758 tons per year from point sources in the year 2020 - 21,290 tons per year from EGUs<sup>11</sup> and 28,468 tons per year from other point sources - for a total annual reduction of 33,345 tons per year from the year 2007 forward.<sup>12</sup>

### **2020 Emissions Inventory Projection for Point Sources in New York**

<b>Point Source Type</b>	<b>2007 NO<sub>x</sub> Emissions (tons per year)</b>	<b>2020 NO<sub>x</sub> Emissions (tons per year)</b>	<b>Percent Reduction</b>
POINT - EGU	35,583	21,290	40
POINT - NONEGU	47,520	28,468	40
POINT -TOTAL	83,103	49,758	40

In addition to limiting point source emissions of NO<sub>x</sub>, the DEC has promulgated regulations that limit the emission of volatile organic compounds (VOC) from major and area sources. These regulations are as follows:

- 6 NYCRR Part 205: Architectural and Industrial Maintenance (AIM) Coatings
- 6 NYCRR Part 226: Solvent Metal Cleaning Processes
- 6 NYCRR Part 228: Surface Coating Processes, Commercial and Industrial Adhesives, Sealants and Primers
- 6 NYCRR Part 229: Petroleum and Volatile Organic Liquid Storage and Transfer
- 6 NYCRR Part 230: Gasoline Dispensing Sites and Transport Vehicles
- 6 NYCRR Part 233: Pharmaceutical and Cosmetic Manufacturing Processes
- 6 NYCRR Part 234: Graphic Arts
- 6 NYCRR Part 241: Asphalt Pavement and Asphalt Based Surface Coating

The Department has also implemented the California low emission vehicle standards under the provisions of §177 of the CAA; these are the strictest motor vehicle emission control programs in the nation, which result in significantly reduced emissions of PM, NO<sub>x</sub> and VOC's from on-road mobile sources.

New York has also been a participating state in CAIR since it was promulgated by the EPA in 2005. This cap-and-trade program was designed to solve the interstate pollution issues that are the focus of this section of the CAA for the 1997 ozone NAAQS. After being remanded to the EPA by the U.S. Court of Appeals, the EPA issued its replacement, the Cross-State Air Pollution Rule (CSAPR). Although the CSAPR's focus is on the 1997 ozone NAAQS and not the current 2008 ozone NAAQS, it would have aided New York and other States with upwind contributors in meeting their clean air obligations. This rule was vacated by U.S. Court of Appeals on August 21, 2012, however, and the EPA has been directed to keep implementing CAIR until such time as a valid replacement to CSAPR is promulgated.

<sup>11</sup> New York State is already below the 2020 projection for Point – EGU emissions with 19,460 tons emitted in 2011.

<sup>12</sup> MANE-VU-grown inventory used for modeling.

As discussed above, New York has lived up to the spirit and letter of the good neighbor provisions of §110(a)(2)(D) of the CAA, and will continue to do so with the additional emissions reductions expected from the already-implemented programs.

### ***Assurance of Adequate Personnel, Funding, and Authority: 110(a)(2)(E)***

*“Each such plan shall [. . .] provide:*

- (i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such implementation plan or portion thereof);*
- (ii) requirements that the state comply with the requirements respecting state boards under section 128;*
- (iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision.”*

In accordance with EPA's regulations in subpart “M”, the infrastructure SIP should identify the organizations that will participate in developing, implementing, and enforcing the SIP as a whole. In particular, the infrastructure SIP should identify the responsibilities of such organizations and include related agreements among the organizations.<sup>13</sup> In accordance with EPA's regulations in subpart “O”, the infrastructure SIP should also describe resources for carrying out state programs and requirements. Resources to be described include:

- 1) Those available to the state (and local agencies, where appropriate) as of the date of infrastructure SIP submittal;
- 2) Those considered necessary during the 5 years following infrastructure SIP submittal; and,
- 3) Projections regarding acquisition of the described resources.<sup>14</sup> Further, the infrastructure SIP should assure that the State has adequate authority under its rules and regulations to carry out the state's SIP obligations with respect to the 2010 NO<sub>2</sub> NAAQS and to revise the SIP as necessary; for example:
  - In accordance with EPA's regulations at subpart “L”, the infrastructure SIP should show that the State has the legal authority to carry out the plan. The provisions of the State's laws or regulations that provide that authority are to be specifically identified in the infrastructure SIP, and copies of the laws or regulations should be included in the infrastructure SIP submittal.<sup>15</sup>
  - In accordance with EPA's regulations at subpart “O”, the infrastructure SIP submittal should include copies of rules and regulations that show that the State has adopted the emission limitations and other measures necessary for attainment and maintenance of the 2010 NO<sub>2</sub> NAAQS.<sup>16</sup>

These elements are discussed below:

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<sup>13</sup> See 40 CFR 51.240, "General plan requirements."

<sup>14</sup> See 40 CFR 51.280, "Resources."

<sup>15</sup> See 40 CFR 51.230 through 51.231.

<sup>16</sup> See 40 CFR 51.281, "Copies of rules and regulations."

*(i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such implementation plan or portion thereof):*

The Department is primarily responsible for developing, implementing, and enforcing the SIP. Within the Department, the Division of Air Resources (DAR), with a staffing level of 221.5 full-time equivalents<sup>17</sup> working in both the central office (Albany) and nine regional offices throughout the State, receives both operating and capital funding to carry out the required state programs and requirements associated with this and other SIPs, as well as its other responsibilities under the CAA, State laws, and rules and regulations. Operating funds are allocated to the DAR annually and are used for daily administrative expenses. These expenses include salaries, fringe benefits, as well as indirect and non-personnel services such as travel, supply and equipment costs. Indirect costs are, in turn, allocated to other agencies or divisions within the Department that support DAR activities. DAR is allocated operating funds from four sources: General Fund (NYS), Co-operative Agreements (i.e., EPA §103 and 105 grants) and the Clean Air Fund, which is comprised of the Title V and Mobile Source accounts.

While the Department has not received capital funds in recent years, those funds (if made available in the future) may be allocated to the DAR at the discretion of the State Legislature; they are used for the financing or acquisition of capital facilities such as the construction of air monitoring sites. The DAR is allocated capital funds from three sources: General Fund, Mobile Source Account, and Rehabilitation and Improvement.

For the five years following the submittal of this SIP, New York anticipates that the resources described above will be available, and will be adequate to fulfill its responsibilities under the SIP. While funding projections from the General Fund cannot be made in advance, the Department will advocate in good faith for adequate funding to carry out its responsibilities under the CAA, to the extent that it can. Because funding levels, both on a State and Federal level, are beyond the direct control of the Department, New York cannot make projections regarding the future acquisition or availability of the resources described above; however, the Department's funding for activities, programs, and responsibilities under the CAA have, historically, remained adequate and consistent from year-to-year.

*(ii) requirements that the state comply with the requirements respecting state boards under section 128:*

The New York State Public Officer's Law (POL) satisfies the condition under CAA §128 that the State comply with the requirements respecting State boards. Specifically, POL 74(2) states, "No officer or employee of a State agency, member of the legislature or legislative employee should have any interest, financial or otherwise, direct or indirect, or engage in any business or transaction or professional activity or incur any obligation of any nature, which is in substantial conflict with the proper discharge of his duties in the public interest." Further, POL74(3)(e) states, "No officer or employee of a State agency, member of the legislature or legislative employee should engage in any transaction as representative or agent of the state with any business entity in which he has a direct or indirect financial interest that might reasonably tend to conflict with the proper discharge of his official duties."

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<sup>17</sup> Staffing levels as of May 7, 2012, excluding all seasonal positions.

*(iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision:*

ECL §19-0305 authorizes the Department's Commissioner to enforce the codes, rules, and regulations of the Department established in accordance with this article. Therefore, the Department has the authority to enforce all SIP measures, which are a compilation of the rules and regulations that are promulgated to achieve or maintain compliance with a NAAQS.

As such, the Department affirms that, where New York has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, New York has the responsibility for ensuring adequate implementation of such plan provision.

### ***Stationary Source Monitoring System and Reporting: 110(a)(2)(F)***

*“Each such plan shall [. . .] require, as may be prescribed by the Administrator:*

- (i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,*
- (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such source,*
- (iii) correlation of such reports by the state agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection.”*

Authority for this provision is provided under article 19 of the ECL. In particular, ECL §19-0311(3(c) [Operating Permit Program] states that operating permits issued pursuant to this section shall include, among other things, “provisions for detailed monitoring, record-keeping and reporting, including requirements that records be kept for five years, and that monitoring records be submitted to the department at least every six months ...”

This statutory requirement finds expression in New York's regulations<sup>18</sup>, which require the monitoring of emissions, recordkeeping, and reporting of permit conditions that are included in all Title V permits for major stationary sources. Each Title V facility permit must also include, as necessary, requirements concerning the use, maintenance, and installation of monitoring equipment or methods.

The Department constructs statewide emissions inventories in order to develop control strategies for pollutants from facilities and other stationary sources. Stationary source emissions inventories are based on actual emissions data submitted by major regulated facilities through annual emission statements, and on calculated emissions from minor stationary sources based on area source procedures established by EPA. Emissions of key pollutants are submitted to EPA through the Consolidated Emissions Regulatory Report (CERR) where they are then uploaded to EPA's National Emission Inventory (NEI).<sup>19</sup>

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<sup>18</sup> 6 NYCRR Part 201-6.5(b)

<sup>19</sup> <http://www.epa.gov/ttnchie1/trends/>

In addition, the Department provides information for the public on its website on how to gain access to emission statements; that information is provided here: <http://www.dec.ny.gov/chemical/54266.html>.

### ***Emergency Powers and Contingency Plans: 110(a)(2)(G)***

*“Each such plan shall provide for authority comparable to that in section 303 of this title and adequate contingency plans to implement such authority.”*

Articles 3 and 19 of the ECL provide the Department with the authority comparable to §303 of the CAA. Among other provisions, ECL§3-0301, “*General functions, powers and duties of the Department and the Commissioner*”, authorizes the Department to prevent and control air pollution emergencies, as defined in subdivision 1 of ECL§1-0303. In exercising such prevention and control, the Commissioner may limit the consumption of fuels and use of vehicles, curtail or require the cessation of industrial processes and limit or require the cessation of incineration and open burning, and take any other action he may deem necessary to prevent and/or control air pollution emergencies.

To prevent and control these emergency episodes, the Department adopted 6 NYCRR Part 207, “*Control Measures for an Air Pollution Episode*”, which implements ECL §3-0301, and which has been previously incorporated into the SIP and subsequently approved by EPA.<sup>20</sup> Part 207 requires the owner of a “significant air contamination source” to submit a proposed episode action plan to the Commissioner containing detailed steps to be taken by the source owner to reduce air contaminant emissions during each stage of an air pollution episode. This regulation also enables the Commissioner to designate air pollution episodes which, in turn, trigger the action plans.

In October, 2009, the Department completed a comprehensive revision of its Air Pollution Episode Procedures to address updated PM<sub>2.5</sub> Significant Harm Levels (SHLs) along with revised values for ozone episodes. The revision involved updating contact information for the Bureaus of Air Quality Assurance, Stationary Sources, and Air Quality Surveillance, as well as the Impact Assessment and Meteorology Section, all of which provide important information and data-gathering services during an air pollution episode. Local-level emergency contacts were also updated. New York’s Air Pollution Episode Procedures include air pollution episode criteria for PM<sub>2.5</sub>, PM<sub>10</sub>, ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide, based on SHLs established by EPA.

### ***Authority for SIP Revisions for Revised NAAQS: 110(a)(2)(H)***

*“Each such plan shall [. . .] provide for revision of such plan—*

- (i) from time to time as may be necessary to take account of revisions of such primary or secondary [NAAQS] or the availability of improved or more expeditious methods of attaining such standard, and*
- (ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the [NAAQS] which it implements or to otherwise comply with any additional requirements established under this chapter (CAA).”*

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<sup>20</sup> Federal Register / Vol. 46 / Thursday, November 12, 1981 / p.55690.

Revisions to the SIP are authorized by §3-0301, 19-0103, 19-0301, 19-0303 and 19-0305 in the ECL. Article 19 of the ECL was adopted to protect New York's air from pollution and to effectuate the policy of the State to maintain a reasonable degree of purity of the air consistent with the public health and welfare and the industrial development of the State. To this end, the State Legislature gave the Department specific powers and duties, including the power to promulgate regulations for preventing, controlling, or prohibiting air pollution. The Department also has the specific authority to regulate motor vehicle exhaust and to approve air contaminant control systems as well as to regulate fuels.

§71-2103 of the ECL provides general enforcement authority for the air regulations, and §71-2105 provides criminal enforcement authority. Thus, New York has the authority to revise the SIP and provide for enforcement in response to changes in the NAAQS, the availability of improved methods for attaining the NAAQS, or in response to an EPA finding that the SIP is substantially inadequate.

### ***Authority for SIP Revisions for New Non-Attainment Areas: 110(a)(2)(I)***

*“Each such plan shall [. . .] in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D of this subchapter (relating to nonattainment areas).”*

In general, revisions to the New York SIP are authorized by §3-0301, 19-0103, 19-0301, 19-0303 and 19-0305 of the ECL. Article 19 of the ECL was adopted to protect New York's air resources from pollution and to effectuate the policy of the State to maintain a reasonable degree of purity of its air resources, consistent with the public health and welfare, and the economic well-being of the State. To this end, the Legislature gave the Department specific powers and duties, including the power to promulgate regulations for preventing, controlling, or prohibiting air pollution. The Department also has the specific authority to regulate motor vehicle exhaust and fuels as well as to approve air contaminant control systems. §71-2103 of the ECL provides general enforcement authority for the air regulations, and §71-2105 provides criminal enforcement authority.

Two elements identified in §110(a)(2) are not governed by the three-year submission deadline of §110(a)(1): These elements pertain to part D, in Title I of the CAA, which addresses plan requirements for nonattainment areas. Therefore, the following §110(a)(2) elements are considered by EPA to be outside the scope of infrastructure SIP actions:

- 1) §110(a)(2)(C) to the extent it refers to permit programs (known as "nonattainment new source review") under part D; and,
- 2) §110(a)(2)(I) in its entirety.

EPA does not expect infrastructure SIP submittals to include regulations or emission limits developed specifically for attaining the relevant standard. Those submittals are due at the time the nonattainment area planning elements are due (18 months following designation). However, since Part D requirements are on a different schedule from the §110 infrastructure elements, they will be developed as necessary and submitted for approval through a separate process.

## ***Consultation, Public Notification and PSD/Visibility: 110(a)(2)(J)***

*“Each such plan shall [. . .] meet the applicable requirements of section 121 of this title (relating to consultation), section 127 of this title (relating to public notification), and part C of this subchapter (relating to prevention of significant deterioration of air quality and visibility protection).”*

### **CAA §121:**

CAA §121 requires States to provide a satisfactory process of consultation with general-purpose local governments, designated organizations of elected officials of local governments, and any Federal Land Manager having authority over Federal land to which the State plan applies. As such, on December 22, 2005, the Department established a SIP Coordinating Council consisting of senior policy representatives from 19 state agencies and authorities, as well as a SIP Task Force consisting of officials from 37 local governments and designated organizations of elected officials. Periodic meetings of both groups have been held during the ozone and PM<sub>2.5</sub> SIP development period for the 1997 ozone NAAQS, and will continue as necessary to address this and other revised standards.

Though there are no Federal lands within New York State to which the Regional Haze Program applies, the Department has participated in the consultation process of the Regional Haze SIP (40 CFR 51.308) with the Federal Land Managers, States and Tribes of the Mid-Atlantic Northeast Visibility Union (MANE-VU), and with other regional planning organizations where emissions from New York are reasonably anticipated to contribute to visibility impairment within Class I areas.

### **CAA §127:**

CAA §127 and 40 CFR 51.285 requires state plans to contain measures which will effectively notify the public during any calendar year on a regular basis of instances or areas in which any national primary ambient air quality standard is exceeded or was exceeded during any portion of the preceding calendar year, to advise the public of the health hazards associated with such pollution, and to enhance public awareness of the measures which can be taken to prevent such standards from being exceeded and the ways in which the public can participate in regulatory and other efforts to improve air quality.

In the case of a predicted or forecasted exceedance of the ozone NAAQS, for instance, the public is urged to follow energy-saving and pollution-reducing steps such as limiting the use of appliances and car pooling. An example of such notice is provided in Appendix A. The Department’s website<sup>21</sup> also contains an Air Quality Index (AQI) for reporting daily air quality to the public, which describes how clean or polluted the air is in near real-time, and the associated health effects. The AQI was created as a way to correlate levels of different pollutants to one scale: The higher the AQI value, the greater the health concern. When levels of ozone and/or fine particles are expected to exceed an AQI value of 100, an Air Quality Health Advisory is issued alerting sensitive groups to take the necessary precautions. The Department, in cooperation with the NYS Department of Health, posts warnings on its website if dangerous conditions are expected to occur. These warnings are also broadcast through the media, and are available on the toll-free Ozone Hotline at 800-535-1345.

The Air Quality Forecast displays the predicted AQI value for eight regions in New York. It also displays the observed values for the previous day. Air quality measurements from New York’s statewide continuous monitoring network are also updated hourly, when and where available. Parameters monitored include ozone,

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<sup>21</sup> <http://www.dec.ny.gov/chemical/34985.html>

fine particulate, carbon monoxide, sulfur dioxide, nitrogen oxides, methane/non-methane hydrocarbons, and meteorological data.

### **Part C:**

In accordance with EPA guidance issued on August 15, 2006, States may continue to rely on their existing NNSR and PSD permitting programs to prevent significant deterioration of air quality within their own boundaries and in adjacent States. New York has a SIP-approved PSD/NSR program under 6 NYCRR Part 231, “*New Source Review for New and Modified Facilities*”. Part 231 includes 8-hour ozone and PM<sub>2.5</sub> PSD and NNSR permitting requirements for major sources in the State.

New York affirms that the current state NNSR permitting program remains in effect, is federally-enforceable, and continues to apply to the State’s major stationary sources. New York commits to the continued enforcement of all SIP measures and the regulation of construction of new or modified stationary sources to meet NNSR requirements. In addition, New York will ensure that federal PSD requirements which are included in EPA-issued PSD permits are incorporated into Title V operating permits.

Visibility protection and regional haze program requirements under §169A and 169B of Part C are being met by the Department through separate efforts. These Part C requirements are not affected by revisions to a NAAQS. There are, therefore, no new applicable visibility protection obligations under §110(a)(2)(J) resulting from the 2010 NO<sub>2</sub> NAAQS revision that is the subject of this Infrastructure SIP.

### ***Air Quality Modeling / Data: 110(a)(2)(K)***

“Each such plan shall [. . .] provide for—

- (i) *the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a [NAAQS], and*
- (ii) *the submission, upon request, of data related to such air quality modeling to the Administrator.”*

6 NYCRR §200.6, “*Acceptable Ambient Air Quality*”, and 6 NYCRR §231.12, “*Ambient Air Quality Impact Analysis*” provide the regulatory foundation for the Department’s air monitoring and modeling programs.

6 NYCRR §200.6 states, “...no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the commissioner shall specify the degree and/or method of emission control required.”

6 NYCRR Subpart 231-12 also provides for an “ambient impact analysis” that “must follow the procedures in the applicable guidelines at 40 CFR Part 51, Appendix W: ‘*Guideline on Air Quality Models of the EPA*’ and the NYSDEC ‘*Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis*’.” Those analyses are applicable to all new facilities or modifications required to evaluate impact on the surrounding areas and the public including, but not limited to ambient and sensitive receptors, public health impacts, nonattainment areas, and Federal Class I areas.

Within the Department's Division of Air Resources, the Bureaus of Air Quality Planning and Air Quality Analysis and Research conduct the modeling that is necessary for predicting the effect on ambient air quality of any pollutant. Both Bureaus are staffed with skilled, technically proficient staff whose training and experience has equipped them with the skills necessary to conduct air quality modeling (see Appendix B). Furthermore, the Department certifies that the air quality modeling and analysis used in the SIPs complies with EPA's guidance<sup>22</sup> on the use of models in attainment demonstrations, and commits to the continued use of air quality models in accordance with EPA's approved modeling guidance, as well as to the submittal of data to the Administrator upon request.

### ***Permitting Fees: 110(a)(2)(L)***

*“Each such plan shall require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover—*  
*(i) the reasonable costs of reviewing and acting upon any application for such a permit, and*  
*(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under subchapter (title) V of this chapter.”*

ECL §19-0311(c) established the Title V Permit Fee Program, which requires the Department to promulgate regulations which require applicants to identify and describe facility emissions in sufficient detail to establish the basis for the fees and applicability of requirements of the CAA. ECL §72-0303 requires major stationary sources to pay operating permit program fees in an amount sufficient to cover the direct and indirect costs of the operating permit program, which operates under an appropriation approved by the New York State Legislature.

In addition, 6 NYCRR Part 201-6.5(a)(7)<sup>23</sup> specifically states that, “The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by Subpart 482-2 of this Title.” Fees generated by this requirement fund New York's Title V Program. New York commits to the continued implementation of the major stationary source permit fee regulations.

### ***Consultation / Participation by Affected Local Entities: 110(a)(2)(M)***

*“Each such plan shall [. . .] provide for consultation and participation by local political subdivisions affected by the plan.”*

The Department established an Inter-agency Consultation Group (ICG) pursuant to 6 NYCRR Part 240, "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved under Title 23 U.S.C. or the Federal Transit laws." Members of this group include the Federal Transit Administration, Federal Highway Administration, New York State Department of Transportation, the EPA, the Department, and several Metropolitan Planning Organizations from across the State. The ICG meets monthly and serves as the underpinning for conformity determinations and as the primary

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<sup>22</sup> US EPA 2007, “Guidance on the use of models and other analyses for demonstrating attainment of air quality goals for ozone, PM2.5 and regional haze.” EPA-454/B-07-002.

<sup>23</sup> New York's approved Title V program.

mechanism for ensuring early coordination and negotiation among all parties affected by transportation conformity, including the general public, the business community, and other interested parties. The ICG's role is central to the entire transportation conformity process.

When necessary, additional consultation and participation by local political subdivisions are provided through the SIP Task Force that was established in 2005; this task force consists of officials from 37 local governments and designated organizations of elected officials. Participation by affected local entities, as well as the public, is also provided through 6 NYCRR Part 617, "*State Environmental Quality Review*." For each major SIP revision, SEQR requires the Department to provide appropriate notice, provide the opportunity to submit written comments, and allow the public and local entities the opportunity to request a public hearing.

As such, the Department affirms its commitment to continue to provide for consultation and participation by local political subdivisions.

Finally, in accordance with Subpart "M's intergovernmental consultation requirements that the infrastructure SIP should identify the responsibilities of such organizations and include related agreements among the organizations, New York affirms that the Department is primarily responsible for developing, implementing, and enforcing the SIP.