

## **8.0 SECTION 110 INFRASTRUCTURE REQUIREMENTS**

### **8.1 Introduction and Background**

42 U.S.C. § 7410(a)(1) and (2) (Sections 110(a)(1) and (2)) of the federal Clean Air Act), hereafter referred to as the “Infrastructure” State Implementation Plan (SIP) requirements, requires states to submit an implementation plan to the United States Environmental Protection Agency (USEPA) Administrator that demonstrates their ability and authority to implement, maintain, and enforce each National Ambient Air Quality Standard (NAAQS). Section 110(a)(1) of the Clean Air Act addresses the timing requirement for the submissions of any Infrastructure SIP revisions while Section 110(a)(2) of the Clean Air Act lists the required elements that a state needs to demonstrate its authority for implementing. These elements including, but are not limited to, air quality monitoring, data analysis, and reporting; enforcement; resources; consultation; emergency procedures; and issues related to transport.

On August 15, 2006, the USEPA issued guidance<sup>1</sup> on what states should submit in order to comply with Section 110(a)(2)(D)(i) of the Clean Air Act. Subsequently, on October 2, 2007, the USEPA issued guidance<sup>2</sup> on what states should submit in order to comply with the remaining non-transport-related requirements of Section 110(a)(2) for both the 1997 8-hour ozone and fine particulate matter (PM<sub>2.5</sub>) NAAQS.

New Jersey has complied with both of the USEPA’s guidance documents to address its Infrastructure SIP requirements for the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS in two parts:

- On December 22, 2006, the New Jersey Department of Environmental Protection (NJDEP) sent the USEPA a letter<sup>3</sup> describing New Jersey's plan for addressing the transported emission requirements prescribed in Section 110(a)(2)(D)(i) of the Clean Air Act with respect to the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS. As described in this letter, the transported emissions related actions would be part of various SIP proposals, which would all go through a public comment process prior to being finalized for submission to the USEPA. To date, the NJDEP has held public hearings on New Jersey’s 8-hour ozone reasonably available control technology (RACT) SIP and its Clean Air Interstate Rule (CAIR), both of which included a discussion of interstate transport as outlined in the December 22, 2006 NJDEP letter to the USEPA.

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<sup>1</sup> USEPA. Guidance for State Plan Submission 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. United States Environmental Protection Agency, August 15, 2006.

<sup>2</sup> USEPA. Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 1997 8-Hour Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards. United States Environmental Protection Agency, October 2, 2007.

<sup>3</sup> Letter from NJDEP Commissioner Lisa P. Jackson to USEPA Regional Administrator Steinberg dated December 22, 2006. The letter is posted on the NJDEP’s website at <http://www.state.nj.us/dep/baqp/sip/siprevs.htm>.

- On February 25, 2008, the NJDEP submitted an Infrastructure SIP<sup>4,5</sup> which addressed all the non-transport-related elements of Section 110(a)(2) with respect to the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS.<sup>6</sup> (See Appendix E)

Through these two efforts, New Jersey determined that it had the authority to implement its Infrastructure SIP requirements outlined in the USEPA's guidance documents with respect to both the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS. Furthermore, these actions by the State satisfied the timing requirement under the Consent Decree for the Section 110(a)(2) elements for the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS.

As with 8-hour ozone, addressing transported emissions of PM<sub>2.5</sub>, both to and from the State, is critical for New Jersey's multi-state nonattainment areas to attain and maintain the health-based ambient air quality standards. To emphasize this importance, the remainder of this Chapter reiterates the State's plan as outlined in its transport letter, submitted to the USEPA on December 22, 2006,<sup>7</sup> as it pertains to the PM<sub>2.5</sub> NAAQS, and provides updates on the State's progress in addressing interstate transport of PM<sub>2.5</sub>-related emissions. The public hearing on New Jersey's proposed CAIR,<sup>8</sup> held on March 28, 2007, included a discussion of interstate transport as outlined in the December 22, 2006 NJDEP letter to the USEPA. New Jersey's CAIR was adopted on June 19, 2007, became effective on July 16, 2007, became operative on August 17, 2007,<sup>9</sup> and the USEPA approved these rules on October 1, 2007.<sup>10</sup>

## **8.2 Interstate Transport (§ 110(a)(2)(D))**

### **Section 110(a)(2)(D)(i) of the Clean Air Act**

Each state's SIP must contain adequate provisions prohibiting any source, or other type of emissions activity, within the State from emitting any air pollutants in amounts that will:

- 1) Contribute significantly to nonattainment of the NAAQS for areas in another state or interfere with the maintenance of the NAAQS by another state;
- 2) Interfere with measures required to meet the implementation plan for any other state related to prevention of significant deterioration (PSD); or,

<sup>4</sup> Letter from NJDEP Commissioner Lisa P. Jackson to USEPA Regional Administrator Steinberg dated February 25, 2008. (See Appendix E)

<sup>5</sup> NJDEP. State Implementation Plan Revision For Meeting the Infrastructure Requirements of the Clean Air Act. New Jersey Department of Environmental Protection, February 2008.

<sup>6</sup> The infrastructure SIP proposal was submitted in December 2007: NJDEP. Proposed State Implementation Plan Revision For Meeting the Infrastructure Requirements of the Clean Air Act. New Jersey Department of Environmental Protection, December 2007. Available at <http://www.state.nj.us/dep/baqp/infrastructure.pdf>.

<sup>7</sup> Letter from NJDEP Commissioner Lisa P. Jackson to USEPA Regional Administrator Steinberg dated December 22, 2006. The letter is posted on the NJDEP's website at <http://www.state.nj.us/dep/baqp/sip/siprevs.htm>.

<sup>8</sup> 39 N.J.R. 300(a) (February 5, 2007).

<sup>9</sup> 39 N.J.R. 2637(a) (July 16, 2007). Also, see N.J.A.C. 7:27-30.

<sup>10</sup> 72 Fed. Reg. 55666-72 (October 1, 2007).

- 3) Interfere with measures required to meet the implementation plan for any other state related to Regional Haze and Visibility.

*Significant Contribution to Nonattainment, or Interference with Maintenance, of a NAAQS in Another State*

The USEPA's analysis in support of the CAIR<sup>11</sup> shows that New Jersey is not a significant contributor to PM<sub>2.5</sub> nonattainment in any other state (because its transported contribution is less than 0.2 µg/m<sup>3</sup>). However, that same USEPA analysis indicates that the following upwind states significantly contribute to PM<sub>2.5</sub> nonattainment in Union County, New Jersey:<sup>12</sup>

- Maryland/Washington, D.C.,
- Michigan,
- New York,
- Ohio,
- Pennsylvania, and
- West Virginia.

Further, the USEPA's analysis in support of the CAIR indicates that the following states significantly contribute to PM<sub>2.5</sub> nonattainment in New Jersey's associated PM<sub>2.5</sub> multi-state nonattainment areas:

- Maryland/Washington, D.C.,
- Michigan,
- New York,
- Ohio,
- Pennsylvania,
- Virginia, and
- West Virginia.

The USEPA's transport guidance allows states that are subject to requirements of the CAIR to satisfy the requirements of Section 110 (a)(2)(D)(i) through submittal of a CAIR SIP or reliance of the CAIR Federal Implementation Plan (FIP). New Jersey finalized an abbreviated CAIR SIP on June 19, 2007 that complies with CAIR requirements.<sup>13</sup> As part of this submittal, New Jersey stated that the CAIR SIP also served to partially address the transport requirement, and took that action through the public process. Based on the USEPA's transport guidance, this action by New Jersey satisfies the first of the requirements of Section 110 (a)(2)(D)(i). However, New Jersey has grave doubts that the implementation of CAIR alone will be sufficient to address interstate transport issues,

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<sup>11</sup> USEPA. Technical Support Document for the Final Clean Air Interstate Rule Air Quality Modeling, Air Quality Modeling Analyses – VII: Modeling to Assess Interstate PM<sub>2.5</sub> Contributions. United States Environmental Protection Agency Office of Air Quality Planning and Standards, Research Triangle Park, NC, March 2005.

<sup>12</sup> Union County was the only New Jersey county identified in nonattainment by the USEPA's CAIR analysis.

<sup>13</sup> 39 N.J.R. 2637(a) (July 16, 2007). Also, see N.J.A.C. 7:27-30.

especially for the Northeastern and Mid-Atlantic United States. According to 2010 CAIR modeling, transported emissions from six states contribute to New Jersey's PM<sub>2.5</sub> nonattainment. In addition, CAIR focuses solely on Electric Generating Units (EGUs), and does not address interstate transport of emissions from other sectors (non-EGU, mobile, area).

In light of these concerns, New Jersey commits to implement additional strategies to address the transport of direct PM<sub>2.5</sub> and PM<sub>2.5</sub> precursor emissions both to and from New Jersey. As part of a regional effort, New Jersey commits to:

- Continue to meet its obligations under the oxides of nitrogen (NO<sub>x</sub>) SIP Call, including an allocation mechanism that encourages energy efficiency for New Jersey sources in the Federal CAIR program;
- Develop multi-pollutant (NO<sub>x</sub>, sulfur dioxide (SO<sub>2</sub>), and particulate matter (PM)) performance standards providing additional emission reductions for coal-fired Electric Generating Units (EGUs);
- Update its RACT rules to address the PM<sub>2.5</sub> precursors (see Table 9.1);
- Continue to implement the Low Emission Vehicle (LEV) program; and
- Develop rules and/or other measures to address emissions from oil and gas EGUs on High Electrical Demand Days (HEDD).

The emission reductions from large stationary sources through the NO<sub>x</sub> SIP Call demonstrate significant progress in reducing the transport of PM<sub>2.5</sub> and its precursors in the eastern United States. The demonstration of attainment in Chapter 5 relies on the implementation of additional control measures by upwind states. These PM<sub>2.5</sub> measures include new or additional regulations on asphalt production, cement kilns, glass furnaces, and Industrial/Commercial/Institutional (ICI) boilers. Because New Jersey has demonstrated that it needs the emissions reductions from these other states in order to meet its attainment obligations, the State requests (see Chapter 9) that the USEPA, in reviewing the attainment demonstrations and other SIP revisions from other states, take into consideration the other states' impact on New Jersey's attainment obligations, and ensure that other states are doing what is needed for New Jersey's associated multi-state nonattainment areas to reach attainment as soon as practicable.

All actions which New Jersey determines are necessary to attain and maintain the PM<sub>2.5</sub> NAAQS in New Jersey, and to maintain the PM<sub>2.5</sub> NAAQS in neighboring states, will be proposed and included as a revision to New Jersey's SIP. In accordance with the New Jersey Administrative Procedures Act (APA) (N.J.S.A. 52:14B-1 et seq.) and the Air Pollution Control Act (APCA) (N.J.S.A. 26:2C-1 et seq.), these proposals will be taken through public process at that time and New Jersey commits to propose the measures, not already adopted under the 8-hour ozone commitments.<sup>14</sup>

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<sup>14</sup> NJDEP. State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Ozone National Ambient Air Quality Standard, 8-Hour Ozone Attainment Demonstration, Final, October 29, 2007, Chapter 13. New Jersey Department of Environmental Protection. Available at <http://www.state.nj.us/dep/baqp/sip/siprevs.htm>.

### *Prevention of Significant Deterioration/Nonattainment New Source Review (PSD/NNSR) Requirement*

With respect to the PM<sub>2.5</sub> standard, New Jersey has both attainment and nonattainment areas throughout the State, necessitating both a PSD and NNSR program with respect to this pollutant. The USEPA finalized its implementation rule for the 1997 PM<sub>2.5</sub> NAAQS on April 25, 2007.<sup>15</sup> However, no final PM<sub>2.5</sub> requirements for the NNSR program were included. The USEPA issued interim guidance<sup>16,17</sup> calling for use of coarse particulate matter (PM<sub>10</sub>) as a surrogate for PM<sub>2.5</sub> in the PSD and NNSR programs until NSR rules were finalized. The USEPA issued a portion of the NNSR rule for PM<sub>2.5</sub> on May 16, 2008.<sup>18</sup> According to the PM<sub>2.5</sub> NSR implementation rule, the PM<sub>10</sub> surrogate policy no longer applies after July 15, 2008.

Prior to July 15, 2008, the effective date of the PM<sub>2.5</sub> NSR rule, New Jersey will apply its interim PM<sub>2.5</sub> permitting and modeling procedures to sources of PM<sub>2.5</sub> emissions. Between July 15, 2008 and the effective date of New Jersey's NSR rules for PM<sub>2.5</sub>, the USEPA's Appendix S (40 C.F.R. pt. 51) will apply.

The PM<sub>2.5</sub> NSR rule allows up to three years for states to revise their regulations and SIP. New Jersey expects the three year clock to be triggered once the USEPA adopts the remaining components of its PM<sub>2.5</sub> NSR implementation rules, which are expected by the end of 2008. The NJDEP expects to develop NNSR rule strategies in 2008, propose a NNSR rule revision in 2009, and adopt a revised NSR rule in 2010.

The NJDEP also expects to adopt New Jersey specific PSD rules in the same timeframe. Currently, NJDEP implements most of the federal PSD rules under a delegation agreement and will continue to do so until New Jersey PSD rules are effective.

### *The Regional Haze and Visibility Interference Requirement*

PM<sub>2.5</sub> is the main component of regional haze. Therefore, the PM<sub>2.5</sub> SIP impacts the visibility requirements of Section 110(a)(2)(D)(i). However, the USEPA's transport guidance relieved New Jersey of this Section 110(a)(2)(D)(i) requirement regarding visibility until such time as that New Jersey submits its Regional Haze SIP, due to the USEPA in December of 2007. New Jersey expects to propose its Regional Haze SIP around the same time as it proposes this PM<sub>2.5</sub> SIP. As part of the Regional Haze SIP, New Jersey, in the context of setting the 2018 Reasonable Progress goal through a consultative process, will include an assessment of whether or not there was any interference by impacting states with measures in the implementation plan to prevent significant deterioration of air quality or to protect visibility at the Brigantine Wilderness

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<sup>15</sup> 72 Fed. Reg. 20586-667 (April 25, 2007).

<sup>16</sup> USEPA Memorandum from Stephen D. Page, Director, Office of Air Quality Planning and Standards, to Regional Air Directors, "Implementation of New Source Review Requirements in PM-2.5 Nonattainment Areas," April 5, 2005.

<sup>17</sup> USEPA Memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, to Regional Air Directors, "Interim Implementation of New Source Review for PM2.5," October 23, 1997.

<sup>18</sup> 73 Fed. Reg. 28321-350 (May 16, 2008).

Area in the Edwin B. Forsythe National Wildlife Refuge. The preliminary results of that assessment, as well as other assessments of the interstate transport of air pollutants, including the analysis the USEPA performed to support the adoption of the CAIR rule,<sup>19</sup> demonstrate that New Jersey is one of the most heavily influenced states in terms of contributions to fine particulate levels and the resultant visibility impairment from other states. Regional reductions in air pollutant emissions therefore can have a highly beneficial improvement in air quality in New Jersey. In its proposed Regional Haze SIP, New Jersey expects to agree to propose to investigate several measures to regionally reduce the largest component of PM<sub>2.5</sub>, sulfate, and has depended upon these regional sulfate reductions to establish the long-term (2018) progress goal for New Jersey's Class I area. As with all of New Jersey's SIP proposals, a public comment period on the Regional Haze SIP, including the Section 110(a)(2)(D) requirement portion, will be held to allow interested parties to provide comment on the actions presented in the proposal.

### **8.3 Conclusion**

New Jersey has complied with the USEPA's guidance in determining that it had the authority to implement its Infrastructure SIP requirements with respect to both the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS. Furthermore, the State has satisfied the timing requirement under the Consent Decree for the Section 110(a)(2) elements for the 1997 8-hour ozone and PM<sub>2.5</sub> NAAQS.

Addressing transported emissions, both to and from the State, is critical for New Jersey's PM<sub>2.5</sub> multi-state nonattainment areas to attain and maintain the health-based ambient air quality standards. New Jersey is complying with the USEPA's guidance regarding interstate transport as it relates to the PM<sub>2.5</sub> NAAQS and is doing more to ensure that it is not inferring with the ability of its neighboring states to attain and maintain that standard. While many of New Jersey's existing requirements are already more stringent than the existing pollution control requirements in the neighboring upwind states, New Jersey will consider any additional measures, beyond those already in place, implemented by the neighboring upwind states, if they are more stringent than New Jersey's current actions. New Jersey also encourages the USEPA to take action where states are preempted from action. New Jersey relies on the USEPA to ensure sufficient progress in securing upwind emission reductions to provide for expeditious attainment of the PM<sub>2.5</sub> NAAQS.

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<sup>19</sup> USEPA. Technical Support Document for the Final Clean Air Interstate Rule Air Quality Modeling, Air Quality Modeling Analyses – VII: Modeling to Assess Interstate PM<sub>2.5</sub> Contributions. United States Environmental Protection Agency Office of Air Quality Planning and Standards, Research Triangle Park, NC, March 2005.