

## Appendix K

### **Documentation of the Public Outreach and Notification Process for the Proposed Revision to New Jersey's State Implementation Plan Concerning Section 110 Requirements for All NAAQS and Visibility**

Notice of the proposed SIP and the opportunity for public hearing was posted on the Department's website (<http://www.state.nj.us/dep/>) on June 4, 2014 at two locations (<http://www.nj.gov/dep/baqp/sip/110/Final%20Proposed%20Infrastructure%20SIP.pdf>) and <http://www.nj.gov/dep/baqp/sip/siprevs.htm>. The public notice for the proposed revision was posted at [http://www.nj.gov/dep/baqp/sip/110/110%20SIP%20Legal%20Notice%20May\\_2014.pdf](http://www.nj.gov/dep/baqp/sip/110/110%20SIP%20Legal%20Notice%20May_2014.pdf)

Notice of the proposed SIP and the opportunity for public hearing was sent by e-mail to over 500 interested parties using e-mail addresses from the Department's listserv including the Department's air rules listserv (those people registering for news of the Department's air pollution rules and regulations) and the environmental justice e-mail list (those people involved in environmental justice outreach with the Department). In addition, 28 air quality contacts from other states and air quality regional organizations and six contacts at the USEPA were e-mailed the notice. Paper copies of the notice were mailed to 8 interested parties. Additional notification consisted of faxing notice to 14 newspapers at the New Jersey State House and to the Department's three regional Compliance and Enforcement offices. These notices were all issued at least 30 days prior to the announced date of the potential public hearing and close of comment period. The public comment period ended on July 23, 2014. Two parties, the Sierra Club and the State of Connecticut, submitted written comments to the proposed SIP and those comments are addressed in this Attachment 4 of this Appendix.

In addition, notice of the proposed SIP and the opportunity to request a hearing appeared in the July 7, 2014 edition of the New Jersey Register (46 N.J.R. 1653). No request for a hearing was received by the Department.

Attachment 1 contains the notice announcing the availability of the proposed SIP revision and the public hearing.

Attachment 2 contains documentation of the notices and the New Jersey Register.

Attachment 3 contains the notice posted to cancel the public hearing. The Department offered the opportunity for a Public Hearing to be held on July 16, 2015. No one requested that the hearing be held so the public hearing was cancelled by notice posted at <http://www.state.nj.us/dep/baqp/sip/cancel110.pdf>

Attachment 4 to the Section 110 SIP contains the Department's response to comments on the proposed SIP revision and a copy of those comments.

## Appendix K - Attachment 1

Notice announcing the availability of the proposed SIP revision and public hearing the Section 110 SIP posted at <http://www.nj.gov/dep/baqp/sip/siprevs.htm>.

### ENVIRONMENTAL PROTECTION ENVIRONMENTAL MANAGEMENT DIVISION OF AIR QUALITY

#### **Notice of Proposed State Implementation Plan (SIP) Revision and Public Hearing for New Jersey's Multi-pollutant Infrastructure SIP, meeting the requirements of Section 110(a)(1) and (2) of the Clean Air Act (42 U.S.C. § 7410(a)(1) and (2))**

**Take notice** that the New Jersey Department of Environmental Protection (Department) is proposing a revision to the "infrastructure" portion of the State Implementation Plan (SIP) to demonstrate New Jersey's ability and authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and visibility requirements.

This proposed SIP revision addresses the infrastructure requirements of the federal Clean Air Act (42 U.S.C. § 7410(a)(1) and (2) (Section 110(a)(1) and (2))) for the National Ambient Air Quality Standards (NAAQS) for lead, sulfur dioxide, nitrogen dioxide, fine and coarse particulate, carbon monoxide, and ozone. It also addresses the visibility and interstate transport infrastructure requirements for demonstrating that New Jersey has the authority and infrastructure to implement, maintain, and enforce an air quality management program that provides for attainment and maintenance of the NAAQS and visibility standards.

Copies of the Department's proposed SIP revision are available on the Department's web site at [www.nj.gov/dep/baqp/siprevs.html](http://www.nj.gov/dep/baqp/siprevs.html) and from the Department's Bureau of Air Quality Planning at 401 E. State Street in Trenton, New Jersey. A copy of this notice is also available on the web site at [www.nj.gov/dep/baqp/](http://www.nj.gov/dep/baqp/)

A **public hearing** concerning the proposed SIP revision will be conducted **only if requested in writing** by July 8, 2014. If no request for a public hearing is received, the hearing will be cancelled by a notice posted by July 11, 2014, on the Department's web site at <http://www.nj.gov/dep/baqp/>. If a public hearing is requested, it will be held on Wednesday, July 16, 2014 at 11:00 a.m. at the NJDEP Building, 5th Floor Large Conference Room, 401 East State Street, Trenton, New Jersey.

Any written comments must be submitted by close of business, Wednesday, **July 23, 2014**. Please email comment(s) as an e-mail or document attachment to: NJDEP-BAQP@dep.state.nj.us. Please include the BAQP identification number of **BAQP 2014-001** in the subject line of the e-mail. The Department encourages electronic submittal of comments.

In the alternative, comments may be submitted on paper to:

New Jersey Department of Environmental Protection

Attn: BAQP 2014-001

Air Quality Planning

401 East State Street, 7th Floor

Mail Code 401-07H

P.O. Box 420

Trenton, New Jersey 08625-0420

## **Appendix K - Attachment 2**

### **Documentation of e-mail notices and the New Jersey Register notice of July 7, 2014**

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## Ray Papalski

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**From:** owner-airrules@listserv.state.nj.us on behalf of Papalski, Ray  
<Ray.Papalski@dep.nj.gov>  
**Sent:** Wednesday, June 04, 2014 3:02 PM  
**To:** airrules@listserv.state.nj.us  
**Subject:** Proposed New Jersey's Multi-Pollutant Infrastructure SIP Revision -Corrected Link

A proposed revision to the "infrastructure" portion of the New Jersey State Implementation Plan (SIP) to demonstrate the State's ability and authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and visibility requirements is available on the Department's web site at <http://www.nj.gov/dep/baqp/sip/siprevs.htm> and from the Department's Bureau of Air Quality Planning at 401 E. State Street in Trenton, New Jersey. A copy of this notice is also available on the web site at [www.nj.gov/dep/baqp/](http://www.nj.gov/dep/baqp/). This proposed SIP revision addresses the infrastructure requirements of the federal Clean Air Act (42 U.S.C. § 7410(a)(1) and (2) (Section 110(a)(1) and (2))) for the National Ambient Air Quality Standards (NAAQS) for lead, sulfur dioxide, nitrogen dioxide, fine and coarse particulate, carbon monoxide, and ozone.

A public hearing concerning the proposed SIP revision will be conducted only if requested in writing by the public by July 8, 2014. If no request for a public hearing is received, the hearing will be cancelled by a notice posted by July 11, 2014 on the Department's web site at <http://www.nj.gov/dep/baqp/>. If a public hearing is requested, it will be held on Wednesday, July 16, 2014 at 11:00 a.m. at the NJDEP Building, 5th Floor Large Conference Room, 401 East State Street, Trenton, New Jersey.

Any written comments must be submitted by close of business, Wednesday, July 23, 2014. Please email comment(s) as an e-mail or document attachment to: NJDEP-BAQP@dep.state.nj.us. Please include the BAQP identification number of BAQP 2014-001 in the subject line of the e-mail. The Department encourages electronic submittal of comments.

In the alternative, comments may be submitted on paper to:

New Jersey Department of Environmental Protection  
Attn: BAQP 2014-001  
Air Quality Planning  
401 East State Street, 2nd Floor  
Mail Code 401-07H  
P.O. Box 420  
Trenton, New Jersey 08625-0420

----- This message has been sent by the New Jersey Department of Environmental  
Protection END moderate = yes moderator =  
mungedomain = no  
noadvertise << END

## Ray Papalski

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**From:** Outlaw, Riche  
**Sent:** Thursday, June 05, 2014 3:21 PM  
**To:** Gaddy, Kim; Harper, Rev Fletcher; Held, Joann; Kelly Francis; Kim T. Gaddy; Valorie Caffee; Anderson, Steve; Donald, Joe; Driber, Sherry; Eldridge, Joe; Fontecchio, Christa; Gray, John; Hansberry, Heather; Jerald Fagliano; Krause, Julie; McLaughlin, Frank; Molly Greenberg ; Peter Montague; Pflugh, Kerry; Pringle, David; Sheats, Nicky; Siekerka, Michele; Taccini, Angelene; Willinger, Allan  
**Subject:** New Jersey State Implementation Plan (SIP) proposed revision

Good afternoon EJAC and others:

On behalf of DEP's Bureau of Air Quality Planning, please see the letter below regarding a proposed revision to the "infrastructure" portion of the New Jersey State Implementation Plan (SIP). Any comments regarding the letter should be sent to address and email noted in the letter.

Sincerely,

Riché S. Outlaw  
EJ Coordinator  
Deputy Commissioner's Office  
401 E. State Street  
PO Box 402  
Trenton, NJ 08625-0402  
Office: 609.292.2908  
Direct: 609.633.0747  
Mobile: 609.775.7455



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If you are not the intended recipient of this e-mail, please notify the sender, delete it and do not read, act upon, print, disclose, copy, retain or redistribute it.

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Dear Interested Party,

A proposed revision to the "infrastructure" portion of the New Jersey State Implementation Plan (SIP) to demonstrate the State's ability and authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and visibility requirements is available on the Department's web site at [www.nj.gov/dep/baqp/siprevs.html](http://www.nj.gov/dep/baqp/siprevs.html) and from the Department's Bureau of Air Quality Planning at 401 E. State Street in Trenton, New Jersey. A copy of this notice is also available on the web site at [www.nj.gov/dep/baqp/](http://www.nj.gov/dep/baqp/). This proposed SIP revision addresses the infrastructure requirements of the federal Clean Air Act (42 U.S.C. § 7410(a)(1) and (2) (Section 110(a)(1) and (2))) for the National Ambient Air Quality Standards (NAAQS) for lead, sulfur dioxide, nitrogen dioxide, fine and coarse particulate, carbon monoxide, and ozone.

A public hearing concerning the proposed SIP revision will be conducted only if requested in writing by the public by July 8, 2014. If no request for a public hearing is received, the hearing will be cancelled by a notice posted by July 11, 2014 on the Department's web site at <http://www.nj.gov/dep/baqp/>. If a public

hearing is requested, it will be held on Wednesday, July 16, 2014 at 11:00 a.m. at the NJDEP Building, 5th Floor Large Conference Room, 401 East State Street, Trenton, New Jersey.

Any written comments must be submitted by close of business, Wednesday, July 23, 2014. Please email comment(s) as an e-mail or document attachment to: NJDEP-BAQP@dep.state.nj.us. Please include the BAQP identification number of BAQP 2014-001 in the subject line of the e-mail. The Department encourages electronic submittal of comments.

In the alternative, comments may be submitted on paper to:

New Jersey Department of Environmental Protection  
Attn: BAQP 2014-001  
Air Quality Planning  
401 East State Street, 2<sup>nd</sup> Floor  
Mail Code 401-07H  
P.O. Box 420  
Trenton, New Jersey 08625-0420

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**Ray Papalski**

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**Subject:**

RE: Proposed New Jersey's Multi-Pollutant Infrastructure SIP Revision

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**From:** Papalski, Ray [Ray.Papalski@dep.nj.gov]

**Sent:** Wednesday, June 04, 2014 9:02 AM

**To:** [djshaw@gw.dec.state.ny.us](mailto:djshaw@gw.dec.state.ny.us); [melanie.loyzim@maine.gov](mailto:melanie.loyzim@maine.gov); [doug.mcvay@dem.ri.gov](mailto:doug.mcvay@dem.ri.gov); [dick.valentinetti@state.vt.us](mailto:dick.valentinetti@state.vt.us); [cwright@des.state.nh.us](mailto:cwright@des.state.nh.us); [cecily.beall@dc.gov](mailto:cecily.beall@dc.gov); [mgdowd@deq.virginia.gov](mailto:mgdowd@deq.virginia.gov); [Ali.mirzakhali@state.de.us](mailto:Ali.mirzakhali@state.de.us); [jeepss@state.pa.us](mailto:jeepss@state.pa.us); [gaburn@mde.state.md.us](mailto:gaburn@mde.state.md.us); [Nancy.Seidman@state.ma.us](mailto:Nancy.Seidman@state.ma.us); [anne.gobin@po.state.ct.us](mailto:anne.gobin@po.state.ct.us); Joseph Jakuta; Wick Havens; Andy Bodnarik; [jmcdill@marama.org](mailto:jmcdill@marama.org); [swierman@marama.org](mailto:swierman@marama.org); [lweiss@nescaum.org](mailto:lweiss@nescaum.org); [rgsliwin@gw.dec.state.ny.us](mailto:rgsliwin@gw.dec.state.ny.us); [Paul.Bodner@ct.gov](mailto:Paul.Bodner@ct.gov); [rwstanna@gw.dec.state.ny.us](mailto:rwstanna@gw.dec.state.ny.us); [mpsheelha@gw.dec.state.ny.us](mailto:mpsheelha@gw.dec.state.ny.us); [mxreis@gw.dec.state.ny.us](mailto:mxreis@gw.dec.state.ny.us); [John.Sipple@state.de.us](mailto:John.Sipple@state.de.us); [David.Fees@state.de.us](mailto:David.Fees@state.de.us); [ashulman@state.pa.us](mailto:ashulman@state.pa.us); [nherb@pa.gov](mailto:nherb@pa.gov); [sbogart@pa.gov](mailto:sbogart@pa.gov); [fradkin.kenneth@epa.gov](mailto:fradkin.kenneth@epa.gov); [Forde.Raymond@epamail.epa.gov](mailto:Forde.Raymond@epamail.epa.gov); [Lau.Gavin@epamail.epa.gov](mailto:Lau.Gavin@epamail.epa.gov); [Feingersh.Henry@epamail.epa.gov](mailto:Feingersh.Henry@epamail.epa.gov); [Laurita.Matthew@epamail.epa.gov](mailto:Laurita.Matthew@epamail.epa.gov); [Truchan.Paul@epamail.epa.gov](mailto:Truchan.Paul@epamail.epa.gov)

**Subject:** Proposed New Jersey's Multi-Pollutant Infrastructure SIP Revision

Dear Interested Party,

A proposed revision to the "infrastructure" portion of the New Jersey State Implementation Plan (SIP) to demonstrate the State's ability and authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and visibility requirements is available on the Department's web site at [www.nj.gov/dep/baqp/siprevs.html](http://www.nj.gov/dep/baqp/siprevs.html) and from the Department's Bureau of Air Quality Planning at 401 E. State Street in Trenton, New Jersey. A copy of this notice is also available on the web site at [www.nj.gov/dep/baqp/](http://www.nj.gov/dep/baqp/). This proposed SIP revision addresses the infrastructure requirements of the federal Clean Air Act (42 U.S.C. § 7410(a)(1) and (2) (Section 110(a)(1) and (2))) for the National Ambient Air Quality Standards (NAAQS) for lead, sulfur dioxide, nitrogen dioxide, fine and coarse particulate, carbon monoxide, and ozone.

A public hearing concerning the proposed SIP revision will be conducted only if requested in writing by the public by July 8, 2014. If no request for a public hearing is received, the hearing will be cancelled by a notice posted by July 11, 2014 on the Department's web site at <http://www.nj.gov/dep/baqp/>. If a public hearing is requested, it will be held on Wednesday, July 16, 2014 at 11:00 a.m. at the NJDEP Building, 5th Floor Large Conference Room, 401 East State Street, Trenton, New Jersey.

Any written comments must be submitted by close of business, Wednesday, July 23, 2014. Please email comment(s) as an e-mail or document attachment to: [NJDEP-BAQP@dep.state.nj.us](mailto:NJDEP-BAQP@dep.state.nj.us). Please include the BAQP identification number of BAQP 2014-001 in the subject line of the e-mail. The Department encourages electronic submittal of comments.

In the alternative, comments may be submitted on paper to:

New Jersey Department of Environmental Protection  
Attn: BAQP 2014-001  
Air Quality Planning  
401 East State Street, 2<sup>nd</sup> Floor  
Mail Code 401-07H  
P.O. Box 420  
Trenton, New Jersey 08625-0420

approximately 49,500 gross alpha screening test samples over the next year. This number also includes the New Jersey Department of Health laboratory that has a capacity for 5,200 tests annually.

During the five most recent calendar years, 2009 through 2013, totals of 6,483, 6,074, 6,467, 5,577, and 6,548 gross alpha screening tests were reported to the Department for these counties in response to the requirements of the PWTA and the N.J.A.C. rules. This number includes tests for real estate transactions and leased properties. Based on the 6,548 reported tests for 2013, and the estimated capacity of 49,500 tests by the laboratories, the Department has demonstrated that the laboratory capacity still remains more than sufficient.

Five of the 10 laboratories certified by New Jersey performed rapid gross alpha analyses of New Jersey private well water samples during calendar year 2013. About nine percent of these tests were performed by a single certified commercial laboratory located in New Jersey. About 75 percent of the tests were analyzed by laboratories located in the New Jersey/Pennsylvania/New York tri-state area with about 25 percent of the tests performed by a laboratory located in a Southeastern state.

The certified laboratories reported that the current cost range for testing remained the same as the two years prior, from \$30.00 to \$200.00 per sample. Also, the median cost dropped slightly from \$61.00 to \$60.00 per sample. The Department believes that the costs remain reasonable.

The Department will continue to evaluate laboratory capacity for the conduct of gross alpha screening test on an annual basis, as required by the PWTA.

For further information on the PWTA rules, please contact the Department's toll-free information hotline: 1-866-4PW-TEST or 1-866-479-8378 or the website, [www.nj.gov/dep/pwta](http://www.nj.gov/dep/pwta). Information regarding certified laboratories can be obtained through the Office of Quality Assurance at its website, [www.nj.gov/dep/oqa](http://www.nj.gov/dep/oqa) or by telephone at (609) 292-3950.

## (a)

### SITE REMEDIATION PROGRAM

#### Notice to Receive Interested Party Comments on Proposed Consent Judgment to Recover Cleanup and Removal Costs for the Noble Oil Company Site in the Township of Tabernacle, Burlington County

Take notice that the New Jersey Department of Environmental Protection (the Department) hereby gives notice of a proposed Consent Judgment concerning recovery of unreimbursed cleanup and removal costs resulting from discharges at the Noble Oil Company property, located at 30 Cramer Road, Tabernacle, Burlington County (the Site). The Site is also known and designated as Block 325, Lot 1.03, on the Tax Map of the Township of Tabernacle, which the Department has designated as Site Remediation Program Interest No. 014267.

The Department, under the authority of the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq. (Spill Act), proposes to enter into this Consent Order with Loeffel's Waste Oil Service, Inc. of Rolling Ridge Road, West Milford, and Augustus E. Erbe, Jr., t/a Loeffel's Waste Oil Service.

Under the proposed Consent Judgment, Loeffel's Waste Oil Service, Inc., of Rolling Ridge Road, West Milford, and Augustus E. Erbe, Jr., t/a Loeffel's Waste Oil Service, have agreed to settle their alleged liability to the Department for unreimbursed cleanup and removal costs resulting from discharges of hazardous substances at the Noble Oil Company property by payment of \$125,000 to the Department.

It is the intent of the Department and Loeffel's Waste Oil Service, Inc., of Rolling Ridge Road, West Milford, and Augustus E. Erbe, Jr., t/a Loeffel's Waste Oil Service, that this Consent Order constitutes a judicially approved settlement within the meaning of N.J.S.A. 58:10-23.11(f) of the Spill Act and 42 U.S.C. § 9613(f)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1984, as amended (CERCLA), 42 U.S.C. §§ 9601 et seq., for the purpose of

providing protection from contribution actions or claims for matters addressed in this Consent Order.

Copies of the proposed Consent Order are available for inspection at the Department's main office at 401 East State Street, in Trenton, New Jersey, and via the Internet at [www.nj.gov/dep/srp/legal](http://www.nj.gov/dep/srp/legal). A copy of the Department's files concerning the Site is available for review by contacting the Office of Record Access, NJDEP, P.O. Box 420, Mail Code 401-06Q, Trenton, NJ 08625-0420 or via e-mail at [records.custodian@dep.state.nj.us](mailto:records.custodian@dep.state.nj.us).

Interested persons may submit comments on the entry of this Consent Order to:

Kevin Kratina, Assistant Director  
New Jersey Department of Environmental Protection  
Site Remediation Program/Enforcement & Information  
Support Element  
Mail Code: 401-05G  
PO Box 420  
Trenton, NJ 08625-0420

All comments must be submitted within 30 calendar days of the date of this public notice. The Department will consider all comments received and may decide to withdraw or withhold consent to the entry of the Consent Order if comments received disclose facts or considerations which show that the Consent Order is inappropriate, improper, or inadequate.

## (b)

### ENVIRONMENTAL MANAGEMENT DIVISION OF AIR QUALITY

#### Notice of Proposed State Implementation Plan (SIP) Revision and Public Hearing for New Jersey's Multi-pollutant Infrastructure SIP, meeting the requirements of Section 110(a)(1) and (2) of the Clean Air Act (42 U.S.C. § 7410(a)(1) and (2))

Take notice that the New Jersey Department of Environmental Protection (Department) is proposing a revision to the "infrastructure" portion of the State Implementation Plan (SIP) to demonstrate New Jersey's ability and authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and visibility requirements.

This proposed SIP revision addresses the infrastructure requirements of the Federal Clean Air Act (42 U.S.C. § 7410(a)(1) and (2) (Section 110(a)(1) and (2))) for the National Ambient Air Quality Standards (NAAQS) for lead, sulfur dioxide, nitrogen dioxide, fine and coarse particulate, carbon monoxide, and ozone. It also addresses the visibility and interstate transport infrastructure requirements for demonstrating that New Jersey has the authority and infrastructure to implement, maintain, and enforce an air quality management program that provides for attainment and maintenance of the NAAQS and visibility standards.

Copies of the Department's proposed SIP revision are available on the Department's web site at [www.nj.gov/dep/baqp/sip/siprevis.html](http://www.nj.gov/dep/baqp/sip/siprevis.html) and from the Department's Bureau of Air Quality Planning at 401 E. State Street in Trenton, New Jersey. A copy of this notice is also available on the web site at [www.nj.gov/dep/baqp/](http://www.nj.gov/dep/baqp/).

A public hearing concerning the proposed SIP revision will be conducted **only if requested in writing** by the public by July 8, 2014. If no request for a public hearing is received, the hearing will be cancelled by a notice posted by July 11, 2014, on the Department's web site at <http://www.nj.gov/dep/baqp/>. If a public hearing is requested, it will be held on Wednesday, July 16, 2014, at 11:00 A.M. at the NJDEP, 5th Floor Large Conference Room, 401 East State Street, Trenton, New Jersey.

Any written comments must be submitted by close of business, Friday, July 23, 2014. Please e-mail comment(s) as an e-mail or document attachment to: [NJDEP-BAQP@dep.state.nj.us](mailto:NJDEP-BAQP@dep.state.nj.us). Please include the BAQP



### Appendix K - Attachment 3

Notice posted on <http://www.nj.gov/dep/baqp/sip/siprevs.htm> to cancel the Section 110 SIP public hearing.

#### **Cancellation of Public Hearing on Wednesday, July 16, 2014 concerning New Jersey's proposed Infrastructure SIP revisions**

The Department of Environmental Protection **will not be holding** the public hearing scheduled on Wednesday, July 16, 2014 for the proposed Infrastructure State Implementation Plan (SIP) revision. This proposed Infrastructure SIP revision demonstrates New Jersey's ability and authority to implement, maintain, and enforce the National Ambient Air Quality Standards and visibility requirements. There will be no public hearing because no request from the public to hold the hearing was received. Written comments may still be submitted until July 23, 2014 by e-mail to [NJDEP-BAQP@dep.state.nj.us](mailto:NJDEP-BAQP@dep.state.nj.us), with **BAQP 2014-001** in the subject line, or by letter to NJDEP, Attn: BAQP 2014-001, Air Quality Planning, 401 East State Street - 2nd floor, Mail Code 401-07H, P.O. Box 420, Trenton, NJ, 08625-0420.

## **Appendix K - Attachment 4**

### **The New Jersey Department of Environmental Protection's Response to Comments on the Proposed Revision to New Jersey's State Implementation Plan Concerning the Clean Air Act's Section 110 (Infrastructure) Requirements for All NAAQS and Visibility**

Comments on the proposed Section 110 State Implementation Plan (SIP) revision were submitted by two entities: the State of Connecticut's Department of Energy and Environmental Protection (CT DEEP) and the Sierra Club (SC). The comments and the Department's responses are below.

**Comment 1:** New Jersey is a national leader in the development and implementation of emissions control strategies and has reduced summertime emissions of nitrogen oxides by 63% and volatile organic compounds by 61% since 1990. Daily limits, rather than seasonal limits, ensure that air pollution control equipment is operated every day during the ozone season. (CT DEEP)

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**Response 1:** We agree. In particular, New Jersey's ozone season daily oxides of nitrogen limits on electric generating units has set the bar for other states to better address high temperature day ozone exceedances of the NAAQS.

**Comment 2:** New Jersey is one of the largest upwind contributors to Connecticut's ongoing ozone nonattainment problem, and New Jersey should explore all possible source categories for the possibility of additional federal or state controls, including federal controls on marine engines and replacement catalytic converters. (CT DEEP)

**Comment 3:** Connecticut looks forward to working with New Jersey and all upwind ozone contributors, as well as any downwind state that Connecticut may impact, to solve this shared national problem, and Connecticut is in the process of securing the modeling resources necessary to perform an in-house analysis to supplement those analyses being developed by others like the Ozone Transport Commission. (CT DEEP)

**Responses 2 and 3:** Emissions from sources in New Jersey are a component of the ozone levels in Connecticut. New Jersey will continue to work with the State of Connecticut, including regional modeling efforts, in identifying the extent of that contribution. New Jersey will also continue to work cooperatively with all States in the eastern United States, through the Ozone Transport Commission, on identifying any new or more stringent state or federal air pollution controls needed. A component of this evaluation must also include local impacts from sources located in Connecticut. In particular, Connecticut should focus on those on-road and non-road mobile sources operating on highways in proximity to ozone monitors, especially where highway construction is causing significant NOx emissions due to traffic congestion and construction equipment. Should additional control strategies be identified, New Jersey will consider these control strategies for implementation in New Jersey and all contributing States.

**Comment 4:** Commenter presented a discussion of the public health impacts and societal costs of sulfur dioxide and ozone pollution. The health and economic benefits of meeting the National Ambient Air Quality Standards for sulfur dioxide and ozone was also presented. (SC)

**Response 4:** High levels of sulfur dioxide and ozone are dangerous to human health and the environment. There is no disagreement that meeting the National Ambient Air Quality Standards in New Jersey results in benefits to human health and the environment. With the shutdown of the Portland coal-fired electrical generating unit in Pennsylvania on June 1, 2014, consistent with the court approved consent agreement, New Jersey no longer has any SO<sub>2</sub> exceedances at any monitor in the state. Also, every operating coal-fired electrical generating unit in New Jersey has a scrubber that controls SO<sub>2</sub> emissions. Hence, there are not high levels of SO<sub>2</sub> emitted in New Jersey.

High ozone levels throughout the northeastern United States, and in other parts of the country, are having a deleterious effect upon human health. The USEPA cited these health effects when it set the 75 ppb ozone standard in 2008 as "increases in school absenteeism, respiratory hospital emergency department visits among asthmatics and patients with other respiratory diseases, hospitalizations for respiratory illnesses, symptoms associated with adverse health effects (including chest tightness and medication usage), and premature mortality (nonaccidental, cardiorespiratory deaths)". In the past thirty years, New Jersey has prepared many State Implementation Plan revisions to attain the ozone standard, and will continue to work with other states through the Ozone Transport Commission, to identify additional measures to lower outdoor ozone levels even more. It is, however, beyond the scope of this infrastructure SIP to address specific plans and measures to show attainment of any specific NAAQS as these plans are submitted under Part D of the Clean Air Act and not as a part of the Infrastructure SIP.

**Comment 5:** The plain language and legislative history of the Clean Air Act and the USEPA's regulations and guidance require that infrastructure SIP's must impose emission limits adequate to prevent exceedances of the National Ambient Air Quality Standards in areas currently designated as attaining these standards. (SC)

**Comment 6:** The proposed SIP fails to address attainment of the 2010 [75 ppb 1-hour] SO<sub>2</sub> and 2008 [75 ppb 8-hour] Ozone NAAQS. EPA regulations, guidance, and Supreme Court decisions hold that Infrastructure SIP's must impose emission limits adequate to prohibit NAAQS exceedances in areas not designated nonattainment [i.e.; in attainment and unclassifiable areas].

**Comment 7:** The proposed SIP fails to include enforceable 1-hour SO<sub>2</sub> emission limitations to ensure attainment and maintenance of the primary [75 ppb] SO<sub>2</sub> NAAQS. (SC)

**Response Comments 5 through 7:** The Clean Air Act's Section 110(a)(2)(A) does not require Section 110 SIP revisions to impose emission limits to prevent violations of the National Ambient Air Quality Standards (NAAQS). Section 110(a)(1) of the Clean Air Act requires "a plan which provides for implementation, maintenance, and enforcement of such primary

standard.” Per USEPA’s guidance<sup>1</sup>, the Section 110 SIP should only “identify existing EPA-approved SIP provisions or new SIP provisions that the air agency has adopted and submitted for EPA approval that limit emissions of pollutants relevant to the subject NAAQS”. The USEPA guidance further states that “Emission limitations and other control measures needed to attain the NAAQS in areas designated nonattainment ... will be due on a different schedule from the section 110 infrastructure elements and will be reviewed and acted upon with regard to approvability for the specific purposes of such an attainment plan under CAA title 1 part D through a separate process at a later time.” The identification of the existing EPA-approved SIP provisions or new SIP provisions that New Jersey has adopted and submitted for EPA approval that limit emissions of pollutants relevant to the subject NAAQS is shown in Section 4 of New Jersey’s proposed Section 110 SIP.

New Jersey’s proposed Section 110 SIP revision demonstrates that New Jersey has the ability and authority to implement, maintain, and enforce the primary and secondary NAAQS within the State. The plan also shows New Jersey’s ability to impose emission limits adequate to prevent exceedances of the NAAQS in attainment areas (to prevent an exceedance of the standard) and in areas not attaining these standards (to attain the standard). These emission limits have already been established within air pollution control permits, or will be established for new sources of air pollution, pursuant to the regulations shown in Appendix B of this SIP revision. These regulations have been submitted and approved by the USEPA as part of the New Jersey State Implementation Plan as shown in Appendix B of this submittal.

**Comment 8:** The proposed SIP fails to include enforceable 1-hour SO<sub>2</sub> emission limitations to ensure attainment and maintenance of the primary SO<sub>2</sub> NAAQS, and New Jersey has not even attempted to show how coal-fired power plants in New Jersey will ensure compliance with the 1-hour 75 ppb SO<sub>2</sub> standard. (SC)

**Response 8:** New Jersey’s current rules in the SIP include low sulfur fuel requirements for distillate and residual fuels (N.J.A.C. 7:27-9) and SO<sub>2</sub> emission limits which require the use of SO<sub>2</sub> scrubbers on coal burning power plants (N.J.A.C. 7:27-10). All the coal-fired power plants in New Jersey have scrubbers and continuous SO<sub>2</sub> emissions monitors to determine continuous compliance with these emission limits. As of June 1, 2014, when the coal units at the Portland power plant in Pennsylvania shut down, all New Jersey SO<sub>2</sub> monitors indicate compliance with the SO<sub>2</sub> NAAQS by a wide margin.

**Comment 9:** The proposed Infrastructure SIP must include enforceable SO<sub>2</sub> emission limits with a one-hour averaging period that applies at all times including periods of start-up, shut-down, and malfunction. (SC)

**Response 9:** New Jersey’s rules in the issued under Subchapter 8 of New Jersey’s code (N.J.A.C. 7:27-8) and under Title V of the Clean Air Act for major sources (N.J.A.C. 7:27-22). EPA does not require 1-hour emission limits for SO<sub>2</sub>. New Jersey emission limits for SO<sub>2</sub>

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<sup>1</sup> “Guidance on Infrastructure State Implementation Plan (SIP) Elements under Clean Air Act Sections 110(a)(1) and 110(a)(2)”, page 13, Stephen D. Page, Director, USEPA, Office of Air Quality Planning and Standards, September 13, 2013.

emissions on coal-fired power plants are for a 24-hour and 30-day averaging periods. Also the coal burning power plant permits contain limits on the sulfur content of coal. A sufficiently stringent 24 hour emission limit is adequate to comply with the 1 hour NAAQS.<sup>2</sup> All coal burning units have continuous emissions monitors (CEMS) to determine compliance at all times.

**Comment 10:** Enforceable SO<sub>2</sub> emission limits are necessary to avoid future nonattainment designations in areas where modeling or monitoring shows that SO<sub>2</sub> levels exceed the one-hour [75 ppb] NAAQS. (SC)

**Comment 11:** The SIP must be based on an analysis of whether New Jersey's emissions significantly contribute to nonattainment and maintenance of the 2010 SO<sub>2</sub> NAAQS in downwind States. (SC)

**Response 10 and 11:** New Jersey already has effective low sulfur fuel and SO<sub>2</sub> scrubber requirements that minimize SO<sub>2</sub> levels in New Jersey and other states. Additionally, New Jersey has been successful in past legal actions against near-by out-of-state sources, including Martin's Creek and Portland power plants in Pennsylvania, to resolve violations of the SO<sub>2</sub> NAAQS in New Jersey caused by these out of state power plants. Coal units at both of these Pennsylvania power plants have shut down as a result of New Jersey's action. Hence, any nonattainment areas in other states are likely to be relatively far from the New Jersey borders.

Currently, all New Jersey SO<sub>2</sub> monitors throughout the State are measuring attainment of the 1-hour SO<sub>2</sub> NAAQS of 75 ppb by a wide margin<sup>3</sup>. The Columbia monitor in Warren County, New Jersey had measured exceedances of the 1-hour SO<sub>2</sub> NAAQS in the past due to the Portland Power Plant in Pennsylvania. However, per the requirements of the court-approved settlement agreement with the Portland power plant in Pennsylvania, the operation of these coal units shut down on June 1, 2014. Since then, the SO<sub>2</sub> levels measured at the Columbia monitor have been less than 5 percent of the standard (i.e. less than 4 parts per billion (ppb)).

The atmospheric dispersion modeling of SO<sub>2</sub> sources is not included within this Section 110 Infrastructure SIP as the USEPA is proposing regulation to address how states are to perform this analysis. The Department will perform any analysis required by the USEPA's "Data Requirements Rule for the 1-Hour Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard (NAAQS)" when the USEPA finalizes this rule. Such analysis may not be required for the coal-fired power plants in New Jersey because all coal burning units have SO<sub>2</sub> scrubbers and continuous emission monitors for SO<sub>2</sub> which demonstrates relatively low emissions of SO<sub>2</sub>. SIP and permits do contain enforceable SO<sub>2</sub> emission limits. The proposed Section 110 Infrastructure SIP revision demonstrates that the Department has the authority and regulations to enforce SO<sub>2</sub> permit limits in all air pollution control permits

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<sup>2</sup> "Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions", page 24, USEPA, OAQPS, April 23, 2014, Stephen D. Page, Director. (<http://www.epa.gov/airquality/sulfurdioxide/pdfs/20140423guidance.pdf>)

<sup>3</sup> The 3-year design value (2011 to 2013) for the 1-hour SO<sub>2</sub> NAAQS ranges from 6 to 26 ppb at all New Jersey's monitoring sites with the exception of the Columbia, N.J. monitor that, until June 1, 2014, was influenced by the Portland power plant emissions. This monitor at Columbia, NJ has a 3-year design value of 91 ppb.

**Comment 12:** Modeling is the appropriate tool for evaluating the adequacy of Infrastructure SIP's and ensuring attainment and maintenance of the SO<sub>2</sub> NAAQS and New Jersey has used modeling to support a Section 126 action against a Pennsylvania power plant. (SC)

**Response 12:** The Department agrees that modeling is an appropriate tool for ensuring attainment and maintenance of the 1-hour, 75 ppb SO<sub>2</sub> NAAQS. New Jersey used modeling to show exceedance of the SO<sub>2</sub> NAAQS at the Portland power plant in Pennsylvania which had no SO<sub>2</sub> scrubber. The USEPA's proposed "Data Requirements Rule for the 1-Hour Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard (NAAQS)" addresses the use of modeling for this similar purpose. The Department will perform modeling, if required by this rule, once it is adopted by the USEPA. New Jersey has shown in Section 5 of the proposed Section 110 Infrastructure SIP revision that it has the ability to perform, and the authority to require, atmospheric modeling pursuant to USEPA requirements.

**Comment 13:** New Jersey has failed to provide an analysis or demonstration that its emission reduction programs are adequate to prevent significant contributions to downwind states. The final analysis must include modeling that is sufficiently robust to demonstrate with reasonable scientific certainty that emissions from New Jersey do not contribute significantly to nonattainment in Connecticut or that modeled ozone design values in multi-state nonattainment area will achieve and maintain timely compliance with the 2008 8-hour ozone NAAQS. (CT DEEP and SC)

**Response 13:** Modeling to evaluate the impacts of air emissions from New Jersey on the air quality in a downwind state would only be relevant if New Jersey were asserting that the air quality impacts from New Jersey were insignificant.

Implementation of New Jersey's air regulations are minimizing the impact of stationary source emissions on our neighboring States. New Jersey requires up-to-date reasonable control levels for stationary sources (e.g., RACT control levels for states in the OTC). New Jersey is a proponent of similar reasonable control level requirements in other states. To date, the USEPA has not ensured the same stringent level of RACT controls from upwind States with "significant contribution" on New Jersey. The USEPA needs to ensure that all other States implement RACT air pollution controls and control programs, including limits on daily ozone-causing emissions during the summer.

New Jersey's measures to control emissions from mobile sources also minimize the impacts on the air quality in our neighboring states. New Jersey has a statewide enhanced motor vehicle Inspection and Maintenance program that ensures New Jersey's motor vehicles operate with acceptable levels of emissions. New Jersey has adopted the motor vehicle emission standards for new vehicles established by the State of California (the California car and heavy duty truck standards) to ensure that only the lowest emitting vehicles available in the nation are sold in New Jersey. The USEPA is responsible for addressing the emissions from new mobile sources.

New Jersey is working with other states in the Ozone Transport Region to better model air quality and to develop additional strategies to reduce ozone. The USEPA has not specified what,

if any, modeling analysis is required under the Clean Air Act Section 110(a)(2)(D). New Jersey will evaluate how to comply with any USEPA requirement once it is established.

Attainment of the ozone standard in the NNJ-NY-CT metropolitan area will require meaningful action by the USEPA on ozone transport and reductions in New York. For example, the USEPA has been slow to address transported emissions at the national level. The USEPA's proposal to revive the CSAPR NOx emissions trading rule for the 85 ppb NAAQS will be ineffective at attaining the 75 ppb NAAQS. The NOx caps in CSAPR are too high and are already being met. Also, CSAPR's ozone season caps fail to address the peak ozone levels that occurred in Connecticut on about 10 days in 2014. The USEPA is already aware that maximum daily NOx levels in some upwind states to the west of the Metropolitan Area have increased in the last 5 years. This is due in large part to electrical generating units in those states not running their emissions controls during the ozone season because it is cheaper for them to comply with emission requirements by purchasing NOx allowances than purchasing the chemicals to run their emissions controls.

The 85 ppb NAAQS would not have been exceeded in Connecticut in the past year if the USEPA had adequately addressed regional transport. Both the Clean Air Interstate Rule (CAIR) and the Cross State Air Pollution Rule (CSAPR) only provide NOx caps for the ozone season but fail to address daily NOx emissions. The USEPA's analysis of air quality improvements that would be achieved if the CSAPR NOx reductions were implemented every day, demonstrated that the NNJ-NYC-CT nonattainment area would meet the old 85 ppb ozone standard by 2014. The analysis assumed implementation of state-level CSAPR caps, and compliance by power plants with the CSAPR caps every summer, including operation of installed air pollution controls. However, some states exceed their CSAPR ozone season caps because of the flaws in the current USEPA transport rules. By contrast, emissions from power plants in New Jersey are well below the CSAPR caps, and New Jersey's NOx emission limits are applicable every day of the ozone season. The USEPA should follow New Jersey's example in developing an effective NOx transport rule.

In addition, the USEPA has failed to require reasonably available control technology (RACT) in states which contribute significantly to ozone nonattainment. There is little federal guidance or oversight on RACT, resulting in widely different RACT emission limits in nearby states. An example of this is the lack of up-to-date RACT NOx limits on High Energy Demand Day (HEDD) electric generating units in New York, which adversely impact Connecticut ozone levels. Also, the use of "behind the meter" diesel engines in New York for demand-side management on high ozone level days further exacerbates the ozone levels in Connecticut.

Until these basic flaws with RACT and with the USEPA's transport rules are resolved, efforts to achieve the ozone health standard will not be successful.

Finally, as noted in the response to Comments 2 and 3, the high levels of ozone that have been recorded in the air monitors in southern Connecticut may reflect significant contribution from local sources, namely mobile source emissions from highways in close proximity to the air monitors.

**Comment 14:** New Jersey's proposed infrastructure SIP fails to incorporate the 2010 SO<sub>2</sub> and 2008 ozone NAAQS, and New Jersey must revise its regulations so that its infrastructure SIP contains accurate, up-to-date ambient air quality standards reflective of the 2010 SO<sub>2</sub> and 2008 ozone NAAQS. (SC)

**Response 14:** New Jersey's proposed Section 110 infrastructure SIP revision references the current National Ambient Air Quality Standards in Table 1, including the 75 ppb, 1-hour standard for SO<sub>2</sub> and the 8-hour ozone standard of 75ppb. New Jersey's air pollution control regulations also cross-reference the federal NAAQS. For example, New Jersey's Subchapter 8 (N.J.A.C. 7:27-8) uses the following definition: "'National ambient air quality standard' or 'NAAQS' means an ambient air quality standard promulgated at 40 CFR 50". A copy of this existing regulation was contained in New Jersey's proposed Section 110 SIP as Appendix J. The requirement in New Jersey's permit rules to comply with all NAAQS satisfies the Section 110 Infrastructure SIP requirements.





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July 23, 2014

Mr. William O'Sullivan  
Director, Division of Air Quality  
Air Quality Planning  
401 East State Street, 7th Floor  
Mail Code 401-07H  
P.O. Box 420  
Trenton, New Jersey 08625-0420

Attn: BAQP 2014-001 via electronic mail to [NJDEP-BAQP@dep.state.nj.us](mailto:NJDEP-BAQP@dep.state.nj.us)

Dear Mr. O'Sullivan:

The Connecticut Department of Energy and Environmental Protection (Department) appreciates the opportunity to comment on the New Jersey Department of Environmental Protection (NJDEP) proposed revision to the "infrastructure" portion of your State Implementation Plan (SIP), which among other things, is intended to demonstrate New Jersey's ability and authority to implement, maintain, and enforce the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS). NJDEP proposed this SIP revision on June 4, 2014.

The Department appreciates that NJDEP is a national leader in the development and implementation of emissions control strategies. According to the proposed SIP revision, New Jersey has reduced summer time emissions of nitrogen oxides by 63% since 1990 while emissions of volatile organic compounds have decreased by almost 61% in the same time frame. Most importantly, New Jersey requires its sources meet daily, rather than seasonal, emission limits during the ozone season. This ensures that installed air pollution control equipment is operated every day during the ozone season rather than allowing sources to turn off their emission controls and use excess emission allowances on high ozone days.

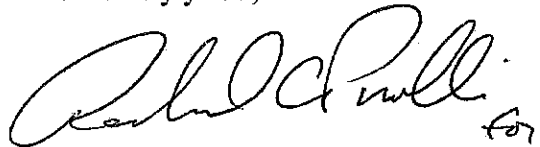
However, due to our close proximity and our shared multi-state ozone nonattainment area, NJ is one of the largest upwind contributors to Connecticut's ongoing ozone nonattainment problem. As such, the Department would appreciate NJDEP exploring all possible source categories to identify sources where additional state or federal controls are feasible. For example, additional federal controls on marine engines or new state rules on replacement catalytic converters could yield significant cost effective emission reductions.

While the Department appreciates NJDEP's attempt to address its "good neighbor" requirement in section 6 of the proposed SIP revision, the Department believes that the final analysis must include modeling that is sufficiently robust to demonstrate with reasonable scientific certainty

that emissions from New Jersey do not contribute significantly to nonattainment in Connecticut or that modeled ozone design values in the multi-state nonattainment area will achieve and maintain timely compliance with the 2008 8-hr ozone NAAQS.

The Department is in the process of securing the modeling resources necessary to perform in-house analyses to supplement those being developed by New Jersey, the Ozone Transport Commission, EPA and others. The Department looks forward to working with New Jersey and all upwind contributors as well as any state downwind of Connecticut which we may impact to solve this shared national problem. If you have any questions, or if the Department can be of any assistance, please contact me at 860-424-3450.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Anne R. Gobin", with a small "for" written below the end of the signature.

Anne R. Gobin, Chief  
Bureau of Air Management

cc: David Shaw (NYDEC)  
David Conroy (EPA Region 1)  
Richard Ruvo (EPA Region 2)

**Law Office of Kathryn M. Amirpashaie, PLC**  
7556 Blanford Court, Alexandria, Virginia 22315

Kathryn M. Amirpashaie

Telephone: 703.851.9111  
E-Mail: [kmalawoffice@gmail.com](mailto:kmalawoffice@gmail.com)

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July 23, 2014

**VIA FIRST CLASS MAIL AND EMAIL** (NJDEP-BAQP@dep.state.nj.us)

New Jersey Department of Environmental Protection  
Attn: BAQP 2014-001  
Air Quality Planning  
401 East State Street, 7th Floor  
Mail Code 401-07H  
P.O. Box 420  
Trenton, New Jersey 08625-0420

**Re: BAQP 2014-001: Sierra Club Comments Concerning New Jersey's Proposed Infrastructure State Implementation Plan Applicable to the Lead, Sulfur Dioxide, Nitrogen Dioxide, Ozone, PM2.5 and PM10, and Carbon Monoxide National Ambient Air Quality Standards and Regional Haze**

Dear Sir or Madam:

On behalf of Sierra Club, its over 17,000 members in New Jersey, and others who are adversely impacted by New Jersey's sources of sulfur dioxide ("SO<sub>2</sub>") and ozone pollution, I submit the following comments on New Jersey's Proposed Infrastructure State Implementation Plan ("SIP") Revision under Clean Air Act Sections 110(a)(1) and 110 (a)(2) for the Lead, Sulfur Dioxide, Nitrogen Dioxide, Ozone, PM2.5 and PM10, and Carbon Monoxide National Ambient Air Quality Standards ("NAAQS") and Regional Haze (hereinafter "Proposed I-SIP"). According to the New Jersey Environmental Protection Division of Air Quality's Notice of Proposed I-SIP, any written comments on the Proposed I-SIP must be submitted by close of business, Wednesday, July 23, 2014, making these comments timely.

In order to comply with the law, New Jersey must submit an Infrastructure State Implementation Plan ("Infrastructure SIP" or "I-SIP") that addresses all of the requirements in sections 110(a)(1) and (2) of the Clean Air Act ("CAA" or "Act") for five distinct NAAQS recently promulgated by the U.S. Environmental Protection Agency, including: (1) the June 2, 2010 one-

hour primary SO<sub>2</sub> standard; and (2) the March 27, 2008 eight-hour primary ozone standard. See 42 U.S.C. § 7410(a)(1) & (2). However, as drafted, New Jersey's Proposed I-SIP fails to satisfy several essential requirements of CAA Section 110(a)(1) and (2), including requirements to establish enforceable emission limits and to adequately address significant contributions to downwind states. The following comments explain these deficiencies in greater detail.<sup>1</sup>

## **I. BACKGROUND**

### **A. National Ambient Air Quality Standards**

The Clean Air Act ("CAA") is, at its core, a directive to protect the public from harmful air pollution. Indeed, "pollution prevention" is a "primary goal" of the CAA. 42 U.S.C. §7401(c). Pursuant to this mandate, EPA is required to promulgate national primary and secondary ambient air quality standards (NAAQS). Primary standards define the level of air quality which must be attained and maintained to prevent adverse impacts on human health, while secondary standards define the air quality required to protect the public welfare by preventing adverse impacts on other elements of the environment, such as vegetation. See 42 U.S.C. § 7409(b). As such, the NAAQS represent a ceiling of air pollution concentrations that apply throughout the country.

So far, EPA has identified six criteria pollutants—sulfur dioxide ("SO<sub>2</sub>"), particulate matter ("PM"), carbon monoxide ("CO"), ozone, nitrogen oxide ("NO<sub>2</sub>"), and lead—that, at certain levels, have scientifically demonstrated negative effects on human health and the environment. EPA has, accordingly, set NAAQS for each of these pollutants. Whenever a new or revised NAAQS is promulgated, Section 110 of the CAA requires states to submit an I-SIP which provides for the implementation, maintenance, and enforcement of such NAAQS. See 42 U.S.C. § 7410. The main objective of the I-SIP process is to ensure that all areas of the country meet the NAAQS—known as being in "attainment" with the standards. Areas with air quality that is worse than a standard should be designated "nonattainment" and dealt with through nonattainment SIPs. Through the I-SIP process, states are required to address elements of its air pollution control programs, including but not limited to regulatory structure, monitoring, modeling, legal authority, and adequate resources necessary to implement, maintain, and enforce the standards. *Id.* These elements are referred to as infrastructure requirements. The NAAQS, therefore, serve as the basis for the development and promulgation of I-SIPs with regard to each criteria pollutant and, as such, are the foundation upon which air emissions standards for the entire country are set, including specific emission limitations for most large stationary sources, such as coal-fired power plants.

### **i. SULFUR DIOXIDE: PUBLIC HEALTH IMPACTS AND THE CURRENT NAAQS**

Exposure to SO<sub>2</sub> in even very short time periods—such as five minutes—has significant health impacts, including decrements in lung function, aggravation of asthma, and respiratory and cardiovascular morbidity. See Primary National Ambient Air Quality Standard for Sulfur

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<sup>1</sup> A copy of these comments and all exhibits can be found at <https://app.box.com/s/ro6qz9q0sl6od6p35y3b>.

Dioxide Final Rule, 75 Fed. Reg. 35,520, 35,525 (June 22, 2010) (hereinafter "Final SO<sub>2</sub> NAAQS Rule"). EPA has also determined that exposure to SO<sub>2</sub> pollution can also aggravate existing heart disease, leading to increased hospitalizations and premature deaths. *Id.*

On June 2, 2010, EPA revised the primary SO<sub>2</sub> NAAQS by establishing a new one-hour standard at a level of 75 parts per billion ("ppb") which is met when the 3-year average of the annual 99th percentile of the daily maximum one-hour average concentrations is less than or equal to 75 ppb. *See id.* at 35,520. The primary SO<sub>2</sub> NAAQS was set at such a level in order to protect public health from the serious threats posed by short-term exposure to SO<sub>2</sub>.

Due to both the more stringent numerical limit and shorter averaging time as compared to the previous SO<sub>2</sub> NAAQS, the new 1-hour SO<sub>2</sub> NAAQS is far more protective of human health than the prior SO<sub>2</sub> NAAQS and promises huge health benefits. EPA has estimated that 2,300 to 5,900 premature deaths and 54,000 asthma attacks a year will be prevented by the new standard. *See* Env'tl. Prot. Agency, Final Regulatory Impact Analysis (RIA) for the SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS) tbl. 5.14 (2010). Timely implementation of the new NAAQS is, thus, critical. Considering the scientific evidence, each year implementation of the one-hour SO<sub>2</sub> NAAQS is delayed, 5,900 more people will die prematurely and 54,000 asthma attacks will occur unnecessarily. Further, EPA estimates that the net benefit of implementing the 75 ppb SO<sub>2</sub> NAAQS is up to \$36 billion dollars. Final SO<sub>2</sub> NAAQS Rule, 75 Fed. Reg. at 35,588, tbl. 2. Those individuals who suffer from health impacts caused by exposure to SO<sub>2</sub> levels above the NAAQS will have greater medical costs with each year implementation is delayed and, as a result, the monetized benefits of implementing the one-hour SO<sub>2</sub> NAAQS will go unrealized. Further, the ability of those individuals to enjoy everyday activities such as exercise, school, and work will continue to be negatively impacted.

## **ii. OZONE: PUBLIC HEALTH IMPACTS AND THE CURRENT NAAQS**

Exposure to ozone in the air we breathe can cause serious health problems, including chest pain, coughing, throat irritation, and congestion. Exposure to unsafe levels of ozone can also worsen bronchitis, emphysema, and asthma. *See* 73 Fed. Reg. 16,436 (Mar. 27, 2008). Ground level ozone also reduces lung function and inflames the linings of the lungs, and repeated exposure may permanently scar lung tissue. *Id.* These effects can be expected to lead to increased school absences in children, absences from work by adults, increased reliance on medication, visits to doctors and emergency rooms, and hospital admissions. Research also indicates that ozone exposure may increase the risk of premature death from heart or lung disease. *Id.* What is more, ozone also damages our environment, vegetation, and trees, and impacts forests, parks, and crops.

In 2008, EPA revised the primary ozone standard to 75 ppb, determined by the annual fourth-highest daily maximum eight-hour concentration averaged over 3 years. *See* National Ambient Air Quality Standard for Ozone, 73 Fed. Reg. 16,436 (Mar. 27, 2008). In revising the ozone standard, EPA recognized it was providing increased protection for public health, especially for children, the elderly, and asthmatics. This revised standard, if properly implemented, will result in improvements in public health and the environment.

EPA estimates that by 2020, proper implementation of the 2008 eight-hour ozone NAAQS has the potential to prevent as many as 2,000 premature deaths annually.<sup>2</sup> See EPA, Fact Sheet: Final Revisions to the National Ambient Air Quality Standards for Ozone, at 1-3 (2008), available at [http://www.epa.gov/glo/pdfs/2008\\_03\\_factsheet.pdf](http://www.epa.gov/glo/pdfs/2008_03_factsheet.pdf). In addition, monetized benefits from the resulting reduction in ozone pollution of up to \$17 billion per year are expected due to implementation of the 2008 ozone NAAQS. *Id.*

## **B. Implementation of the NAAQS**

The Clean Air Act creates a framework for the “development of cooperative Federal, State, regional, and local programs to prevent and control air pollution.” 42 U.S.C. § 7401(a)(4). Pursuant to section 109(b)(1) of the Act, EPA has established primary NAAQS for six criteria air pollutants, “the attainment and maintenance of which . . . are requisite to protect the public health.” *Id.* § 7409(b)(1). States have primary responsibility for assuring air quality within the state. *Id.* § 7407(a). Following promulgation of a NAAQS, the Act requires states to “adopt and submit to the Administrator . . . a plan which provides for implementation, maintenance, and enforcement of such primary [NAAQS].” *Id.* § 7410(a)(1). These plans are called Infrastructure SIPs. For attainment and unclassifiable areas, section 110(a)(2)(A) requires that Infrastructure SIPs “include enforceable emission limitations . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements” of the Clean Air Act, including the requirement to attain and maintain the NAAQS. 42 U.S.C. §§ 7410(a)(2)(A), 7410(a)(1); *Conn. Fund for Env’t, Inc. v. EPA*, 696 F.2d 169, 172 (2d Cir. 1982) (CAA requires that SIPs contain “measures necessary to ensure the attainment and maintenance of NAAQS”); *Mont. Sulphur & Chem. Co. v. EPA*, 666 F.3d 1174, 1180 (9th Cir. 2012) (“The Clean Air Act directs states to develop implementation plans—SIPs—that ‘assure’ attainment and maintenance of national ambient air quality standards (“NAAQS”) through enforceable emission limitations.”) (citing 42 U.S.C. §§ 7407(a), 7410(a)(2)(A)); *Hall v. EPA*, 273 F.3d 1146, 1153 (9th Cir. 2001) (“Each State must submit a [SIP] that specif[ies] the manner in which [NAAQS] will be achieved and maintained within each air quality control region in the State”) (internal citations omitted); see also EPA, “Sulfur Dioxide Implementation—Programs and Requirements for Reducing Sulfur Dioxide,” available at <http://www.epa.gov/airquality/sulfurdioxide/implement.html>.

EPA may approve an I-SIP only if it meets the requirements of section 110(a)(2) of the Act, with the state bearing the burden of demonstrating that its SIP submission satisfies the

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<sup>2</sup> In fact, the health benefits that will be incurred under the 2008 ozone NAAQS will likely be even greater than expected. This is due to the fact that the 2008 ozone NAAQS benefits analysis was based on 2008 ozone levels and current science indicates that higher temperatures experienced since then, for instance during 2012, will soon become typical. Indeed, scientific data of climate change has projected that if greenhouse emissions are not rapidly and substantially reduced, the hottest summer of the last 20 years is expected to occur every other year, or even more frequently than that. See, e.g., “Changes in Ecologically Critical Terrestrial Climate Conditions,” *Science*, 2 Aug. 2013, Vol. 341, no. 6145, 486-492. Therefore, the benefits analysis of the 2008 ozone NAAQS likely underestimates the level of ozone reductions that are required under the standard and, consequently, the public health benefits which will be experienced if the NAAQS is properly implemented.

standards set forth in the CAA. See 42 U.S.C. § 7410(a)(2)(A)-(M). For a plan to be adequate, it "must demonstrate that the measures, rules, and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements." 40 C.F.R. § 51.112(a) (noting also the adequacy of a plan's control measures "shall be demonstrated by means of applicable air quality models . . .").

**i. THE PLAIN LANGUAGE AND LEGISLATIVE HISTORY OF THE CLEAN AIR ACT REQUIRE THAT INFRASTRUCTURE SIPs MUST IMPOSE EMISSION LIMITS ADEQUATE TO PREVENT NAAQS EXCEEDANCES IN AREAS NOT DESIGNATED NONATTAINMENT.**

The Clean Air Act, on its face, requires I-SIPs to prevent exceedances of the NAAQS. Following promulgation of a NAAQS, a state must "adopt and submit to the Administrator . . . a plan which provides for implementation, maintenance, and enforcement of such [NAAQS]." 42 U.S.C. § 7410(a)(1). Pursuant to section 110(a)(2)(A), this I-SIP must "include enforceable emission limitations . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements" of the Clean Air Act (which include the requirement to maintain compliance with the NAAQS). 42 U.S.C. § 7410(a)(2)(A) (emphasis added). As defined by the Act, the term "emission limitation" means "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this chapter." 42 U.S.C. § 7602(k). Thus, the plain language of Clean Air Act Section 110(a)(2)(A) requires that I-SIPs include enforceable emission limits on sources that are sufficient to ensure attainment and maintenance of the NAAQS.

The legislative history of the Clean Air Act also supports this interpretation. As the Senate Committee Report accompanying the 1970 Clean Air Act explained, the Act "would establish certain tools as potential parts of an implementation plan and would require that emission requirements be established by each State for sources of air pollution agents or combinations of such agents in such region and that these emission requirements be monitored and enforceable." Sen. Cmte. on Pub. Works Rpt. at 12 (Sept. 17, 1970) (emphasis added), attached hereto as Ex. 1. This mandate was reaffirmed in the subsequent Senate Conference Report, which stated that: "In order to implement the national ambient air quality standards, these [state implementation] plans must provide for emission limitations on all services in the region covered by the plan, together with schedules and timetables of compliance, systems for monitoring both ambient air and emissions from individual sources, and adequate enforcement authority." Sen. Conf. Rpt., 116 Cong. Rec. 42,381, 42,384 (Dec. 18, 1970) (emphasis added), attached hereto as Ex. 2.<sup>3</sup>

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<sup>3</sup> Although the language of current section 110(a)(2)(A) was originally found in section 110(a)(2)(B), the substance has remained true to the statements found in the Senate Committee Reports. There were only two substantive changes between 1970 and the present. First, the addition of former section 172(c)'s requirement that SIPs' emission limitations, schedules, and timetables be "enforceable." See Rpt. of the Senate Cmte. on Env't. and Pub. Works accompanying the Clean Air Act Amendments of 1989 at 20 (Dec. 20, 1989) (explaining that

**ii. EPA REGULATIONS IMPLEMENTING THE CLEAN AIR ACT REQUIRE THAT INFRASTRUCTURE SIPs IMPOSE EMISSION LIMITS ADEQUATE TO PROHIBIT NAAQS EXCEEDANCES IN AREAS NOT DESIGNATED NONATTAINMENT.**

EPA regulations implementing Clean Air Act Section 110(a)(2) also require that infrastructure SIPs contain emission limits that ensure attainment and maintenance of the NAAQS. Pursuant to these regulations, in order for EPA to approve a SIP, it “must demonstrate that the measures, rules, and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements.” 40 C.F.R. § 51.112(a). As the regulation clearly states, all SIPs must contain emission limits that adequately ensure the NAAQS is achieved. *Id.* Although EPA’s implementing regulations were developed before the Clean Air Act was amended to separate Infrastructure SIPs from nonattainment SIPs—a process that began with the 1977 amendments and was completed by the 1990 amendments—the regulations nonetheless apply to I-SIPs. EPA has not changed the regulation since 1990, and in the preamble to the final rule promulgating 40 C.F.R. § 51.112, EPA expressly identifies that its new regulations were *not* implementing Subpart D, the new nonattainment provisions of the Act. See Air Quality Implementation Plans; Restructuring SIP Preparation Regulations, 51 Fed. Reg. 40,656, 40,656 (Nov. 7, 1986) (“It is beyond the scope of th[is] rulemaking to address the provisions of Part D of the Act . . .”). Consequently, EPA intended 40 C.F.R. § 51.112 to apply to I-SIPs. Thus, it is clear that I-SIPs must contain “measures, rules, and regulations” sufficient to ensure maintenance of the NAAQS.

**iii. PRIOR INTERPRETATIONS OF THE ACT BY EPA REQUIRE THAT INFRASTRUCTURE SIPs IMPOSE EMISSION LIMITS ADEQUATE TO PROHIBIT NAAQS EXCEEDANCES IN AREAS NOT DESIGNATED NONATTAINMENT.**

EPA has relied on section 110(a)(2)(A) and 40 C.F.R. § 51.112 on multiple occasions to reject Infrastructure SIPs that did not contain specific emissions limits sufficient to demonstrate attainment and maintenance of the NAAQS. For example, in March 2006, EPA disapproved Missouri’s attempt to revise the SO<sub>2</sub> emission limits in its I-SIP for two power plants because the new emission limits would not ensure maintenance of the three-hour sulfur dioxide NAAQS then in effect. See Approval and Promulgation of Implementation Plans; State of Missouri, 71 Fed. Reg. 12,623, 12,624 (Mar. 13, 2006). In so doing, EPA explained that “Section 110(a)(2)(A) of the [Act] requires, in part, that the [state implementation] plan include emission limitations to meet the requirements of the Act, including the requirement in section 110(a)(1) that the plan must be adequate to attain and maintain ambient air quality standards.” *Id.* EPA further explained that “40 C.F.R. 51.112 requires that the plan demonstrate that rules contained in the SIP are adequate to attain the ambient air quality standards.” *Id.* In the case of Missouri’s

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“Paragraph (1) of rewritten section 110(c) combines and streamlines existing section 110(a)(2)(b) and the enforceability requirements of section 172(c) of current law”), attached as Ex. 3; see also 42 U.S.C. § 7502(c) (section 172(c)) (requiring that a SIP revision submitted before July 1, 1982 pursuant to a demonstration under subsection (a)(2) “shall contain enforceable measures to assure attainment of the applicable standard not later than December 1, 1987”). Second, the clarification in the 1990 Clean Air Act Amendments that the “means[] or techniques” for meeting the requirements of the Act included “economic incentives such as fees, marketable permits, and auctions of emissions rights.” 42 U.S.C. § 7410(a)(2)(A).



proposed I-SIP, EPA expressed concern that the SO<sub>2</sub> emission rates for the two power plants in question were “not protective of the short-term sulfur dioxide NAAQS” because, while Missouri had lowered the emission rates for the facilities, it had dramatically increased the averaging times (from a 3-hour average to an annual average) without providing “a demonstration, as required by the [Clean Air Act] and EPA regulations, that the [sulfur dioxide national ambient air quality] standards, and particularly the three-hour and the twenty-four hour standards, can be protected by an annual emission limit.” *Id.*

More recently, in December 2013, EPA rejected a revision to Indiana’s sulfur dioxide I-SIP pursuant to 40 C.F.R. § 51.112, because Indiana failed to demonstrate that the I-SIP, as revised, was sufficient to ensure maintenance of the sulfur dioxide NAAQS. See *Approval of Air Quality Implementation Plans; Indiana; Disapproval of State Implementation Plan Revision for ArcelorMittal Burns Harbor; Final Rule*, 78 Fed. Reg. 78,720, 78,721 (Dec. 27, 2013). In that instance, Indiana had submitted a request to EPA to revise its sulfur dioxide I-SIP for the ArcelorMittal Burns Harbor facility in order to remove the SO<sub>2</sub> emission limit for the blast furnace flare at the facility. *Id.* In the proposed disapproval, EPA explained that “[u]nder 40 C.F.R. 51.112(a), each SIP must demonstrate that the measures, rules, and regulations it contains are adequate to provide for the timely attainment and maintenance of the NAAQS.” See *Approval of Air Quality Implementation Plans; Indiana; Disapproval of State Implementation Plan Revision for ArcelorMittal Burns Harbor; Proposed Rule*, 78 Fed. Reg. 17,157, 17,158 (Mar. 20, 2013). EPA rejected the proposed amendment because Indiana did not demonstrate that the existing emission limit for the ArcelorMittal blast furnace gas flare was “redundant, unnecessary, or that its removal would not result in or allow an increase in actual SO<sub>2</sub> emissions,” and, consequently, that removal of the limit would not “affect the validity of the emission rates used in the existing attainment demonstration, thus undermining the SIP’s ability to ensure protection of the SO<sub>2</sub> NAAQS.” *Id.* at 17,159; see also 78 Fed. Reg. at 78,721.

**iv. SUPREME AND APPELLATE COURT OPINIONS HOLD THAT INFRASTRUCTURE SIPs MUST IMPOSE EMISSION LIMITS ADEQUATE TO PROHIBIT NAAQS EXCEEDANCES IN AREAS NOT DESIGNATED NONATTAINMENT.**

Since the inception of the modern Clean Air Act in 1970, courts have interpreted the language presently found in Section 110(a)(2)(A) to require that SIPs contain enforceable emission limits sufficient to prevent exceedances of the NAAQS. In *Train v. NRDC*, a seminal case on SIP approval requirements, the Supreme Court explained that:

In complying with this requirement [that an I-SIP provide for attainment and maintenance of the NAAQS] a State’s plan must include ‘emission limitations,’ which are regulations of the composition of substances emitted into the ambient air from such sources as power plants, service stations, and the like. They are the specific rules to which operators of pollution sources are subject, and which if enforced should result in ambient air which meets the national standards.

421 U.S. 60, 78 (1975); see also *id.* at 67 (citing language from then-current section 110(a)(2)(B) now found in section 110(a)(2)(A)).

Courts of Appeals have followed this holding without exception. For example, in *Pennsylvania Department of Environmental Resources v. EPA*, the Third Circuit stated that the Clean Air Act “directs the EPA to withhold approval from a state implementation plan if the ‘maintenance of [the] standard’ cannot be assured.” 932 F.2d 269, 272 (3rd Cir. 1991).<sup>4</sup> The court observed that the “need to maintain the Clean Air Act standards once they are reached is well-recognized by the Courts.” *Id.* Other courts have provided similar analyses. In *Mision Industrial, Inc. v. EPA*, for example, the First Circuit explained that, “[b]efore approving an air quality implementation plan or revision, the Administrator must determine that it ‘includes emission limitations . . . and such other measures as may be necessary to insure attainment and maintenance of (the) primary or secondary standard . . . .’” 547 F.2d 123, 129 (1st Cir. 1976) (quoting former section 110(a)(2)(B)).

The 1990 Clean Air Act amendments do not alter this picture. Court decisions since the 1990 amendments have continued to hold that I-SIPs must have emission limits that maintain the NAAQS. In *Alaska Department of Environmental Conservation v. EPA*, the Supreme Court explained that an Infrastructure SIP under CAA section 110(a)(1) must be a “plan which provides for implementation, maintenance, and enforcement of [NAAQS].” 540 U.S. 461, 470 (2004) (quoting section 110(a)(1)). “While States have wide discretion in formulating their plans . . . SIPs must include certain measures Congress specified to assure that national ambient air quality standards are achieved.” *Id.* (internal citations and quotations omitted). Thus, in order for EPA to approve an I-SIP, it “must ‘include enforceable emission limitations and other control measures, means, or techniques . . . as may be necessary or appropriate to meet the applicable [CAA] requirements.’” *Id.* (quoting 42 U.S.C. § 7410(a)(2)(A)).

The circuit courts have also been clear that section 110(a)(2)(A) from the post-1990 Clean Air Act requires enforceable emission limits in I-SIPs. For example, the Ninth Circuit affirmed that “[t]he Clean Air Act directs states to develop implementation plans—SIPs—that ‘assure’ attainment and maintenance of national ambient air quality standards (‘NAAQS’) through enforceable emission limitations.” *Mont. Sulphur & Chem. Co.*, 666 F.3d at 1180 (citing 42 U.S.C. §§ 7407(a), 7410(a)(2)(A)) (emphasis added). Likewise, the Sixth Circuit has explained that “EPA’s deference to a state is conditioned on the state’s submission of a plan ‘which satisfies the standards of § 110(a)(2)’ and which includes emission limitations that result in compliance with the NAAQS.” *Mich. Dep’t of Env’tl. Quality*, 230 F.3d at 185 (quoting *Train*, 421 U.S. at 79).

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<sup>4</sup> The court was interpreting the 1977 version of the statute to which Subpart 1 of Part D had been added, *id.* at 271 n.1, but relied on the language of then-current section 110(a)(2)(B) (now found in section 110(a)(2)(A)). *Pennsylvania Dep’t of Env’tl. Res.*, 32 F.2d at 272.

Additionally, in *Hall v. EPA*, the Ninth Circuit held that EPA had not fulfilled its responsibility under another provision—section 110(l)<sup>5</sup>—to evaluate whether a revised air quality plan will achieve the pollution reductions required under the Act. 273 F.3d at 1152. In *Hall*, the court held that EPA had incorrectly approved a revision to an air quality plan solely on the basis that the revisions did not relax the existing SIP, rather than “measur[ing] the existing level of pollution, compar[ing] it with the national standards, and determin[ing] the effect on this comparison of specified emission modifications.” *Id.* at 1157-58 (quoting *Train*, 421 U.S. at 93). EPA claimed a statutory equivalence between non-relaxation of rules approved in 1981 and non-interference with current attainment requirements. *Id.* at 1155. The court rejected EPA’s application of the “no relaxation” rule, finding it inconsistent with the Act because it set an improper baseline that failed to take into consideration the 1990 amendments, which set new deadlines for attainment and established other new requirements for incremental progress towards attainment. *Id.* at 1160-61. Those current attainment requirements were the baseline from which EPA should have measured “non-interference.” *Id.* EPA’s analysis was required to reflect consideration of the prospects of meeting current attainment requirements under a revised air quality plan. *Id.* Just as a plan revision must not interfere with attainment of the NAAQS under section 110(l), an I-SIP must likewise include enforceable limits sufficient to ensure the initial plan provides for maintenance of the NAAQS under 110(a)(2)(A).

## II. SUBSTANTIVE COMMENTS

For the reasons set forth below, New Jersey’s Proposed I-SIP fails to meet the requirements of Section 110(a)(2) of the Clean Air Act.<sup>6</sup>

### A. New Jersey’s Proposed Infrastructure SIP Fails to Incorporate the 2010 SO<sub>2</sub> and 2008 Ozone NAAQS.

As discussed in detail above, an Infrastructure SIP must provide for the implementation maintenance, and enforcement of the primary NAAQS—the levels of air quality necessary to protect public health. 42 U.S.C. § 7410(a)(1) & § 7409(b)(1). New Jersey’s proposed I-SIP must address the following NAAQS:

- The 2010 SO<sub>2</sub> NAAQS, which imposes a new one-hour standard at a level of 196 micrograms per cubic meter (“µg/m<sup>3</sup>”) or 75 ppb, which is met when the 3-year

<sup>5</sup> Section 110(l) provides, in relevant part, that “[t]he Administrator shall not approve a revision of a [state implementation] plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirement of this chapter.” 42 U.S.C. § 7410(l).

<sup>6</sup> In addition to issues discussed in the sections below, the I-SIP must not allow for such things as ambient air incremental increases, variances, exceptions, or exclusions with regard to limits placed on sources of pollutants. Otherwise, New Jersey cannot assure compliance with the Act’s I-SIP requirements for the 2010 SO<sub>2</sub> and 2008 ozone NAAQS. New Jersey’s proposed I-SIP must not allow for exemptions from enforcement that undermine the programs meant to ensure attainment and maintenance with the NAAQS. For example, NJDEP’s I-SIP must not allow the State to exempt certain sources from obtaining permits. Nor may it undercut the State’s air enforcement program by allowing various excuses as affirmative defenses or allowing NJDEP to suspend enforcement or grant variances from requirements for undue hardship or in instances of malfunction, start-up, or shutdown.

average of the 99th percentile of the annual distribution of daily maximum one-hour average concentrations is less than or equal to 75 ppb. 40 C.F.R. § 50.17(a)-(b).

- The 2008 primary ozone standard, which imposes the standard of 75 ppb of the annual fourth-highest daily maximum eight-hour concentration averaged over 3 year. 40 C.F.R. § 50.15(a)-(b).

A preliminary requirement to implementing these primary NAAQS is to incorporate the standards directly into the I-SIP meant to attain and maintain them. See 42 U.S.C. § 7410(a)(2)(A). Despite this essential requirement, New Jersey has failed to include the revised NAAQS in the Proposed I-SIP. This is inadequate. In order to comply with the Clean Air Act, New Jersey must revise its regulations so that its I-SIP contains accurate, up-to-date ambient air quality standards reflective of the 2010 one-hour SO<sub>2</sub> and 2008 eight-hour ozone NAAQS.

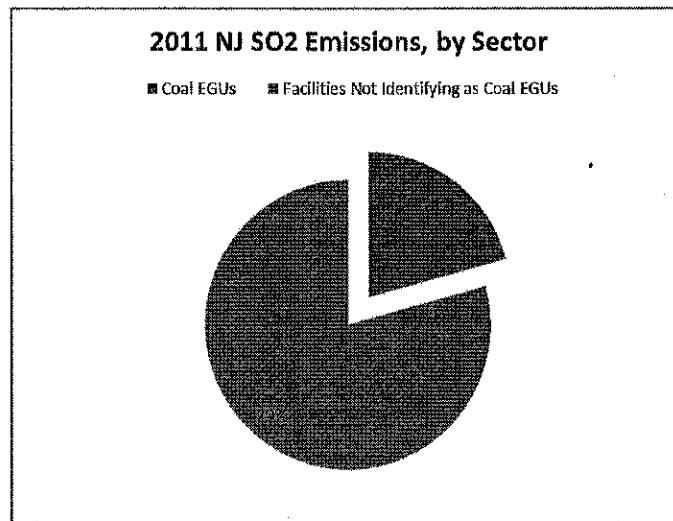
**B. The Proposed Infrastructure SIP Fails to Include Enforceable One-hour SO<sub>2</sub> Emission Limitations to Ensure Attainment and Maintenance of the Primary SO<sub>2</sub> NAAQS.**

The contents of an I-SIP can be considered in two broad categories: (1) state rules, statutes, and programs; and (2) source-specific requirements. New Jersey's I-SIP must, accordingly, include regulations which set forth suitably stringent emission limits with appropriate short-term averaging periods in light of the 2010 SO<sub>2</sub> NAAQS. In addition, the state must also update its emission regulations to ensure that proper mass limitations and short term averaging periods are imposed on certain large sources of pollutants, including power plants. As currently drafted, New Jersey's Proposed I-SIP fails to satisfy these requirements.

**i. NEW JERSEY MUST REVISE ITS PROPOSED INFRASTRUCTURE SIP TO INCLUDE ENFORCEABLE ONE-HOUR SO<sub>2</sub> EMISSION LIMITS FOR SOURCES THAT HAVE EMISSIONS OR EMISSION LIMITS THAT CAUSE OR CONTRIBUTE TO EXCEEDANCES OF THE NAAQS.**

The Proposed I-SIP fails to include adequate enforceable emission limitations or other required measures for sources of SO<sub>2</sub> sufficient to ensure attainment and maintenance of the 2010 SO<sub>2</sub> NAAQS. As discussed above, under section 110(a)(2)(A), the I-SIP must "include enforceable emission limitations . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements" of the Clean Air Act (which include the requirement to maintain compliance with the NAAQS).

Emission limits are especially important for meeting the one-hour SO<sub>2</sub> NAAQS given the "strong source-oriented nature of SO<sub>2</sub> ambient impacts." Final SO<sub>2</sub> NAAQS Rule, 75 Fed. Reg. at 35,570. Nationally, large point sources account for 95 percent of SO<sub>2</sub> emissions, 66 percent of which come from fossil fuel combustion at electric facilities. *Id.* at 35,524. As illustrated in the chart below, 21 percent (or 3,470 of 16,724 tons) of SO<sub>2</sub> emissions in New Jersey are from coal electric generating units ("EGUs"). See SO<sub>2</sub> NEI All Sectors (2011)\_28 Apr 2014.xlsx, Excel Worksheet "Percentage Summary (All States)", attached hereto as Ex. 4; see also EPA, The



Despite the large contribution from coal-fired EGUs to SO<sub>2</sub> pollution in the state, NJDEP has not even attempted to demonstrate that SO<sub>2</sub> emissions from coal-fired power plants and other large stationary sources allowed under the Proposed I-SIP will ensure compliance with the one-hour SO<sub>2</sub> NAAQS. As currently drafted, the Proposed I-SIP simply allows major SO<sub>2</sub> air pollution sources in the state to continue operating under their present emission limits—limits which were not set in light of the new one-hour standard. New Jersey must remedy this deficiency before it finalizes the Proposed I-SIP. Specifically, NJDEP must promulgate enforceable emission limits with one-hour averaging times for large stationary sources of SO<sub>2</sub> pollution into its Proposed I-SIP. These emission limits must apply at all times, including during periods of start-up, shutdown, and malfunction, to ensure that all areas of New Jersey attain and maintain the 2010 one-hour SO<sub>2</sub> NAAQS.<sup>7</sup> As a starting point, NJDEP must establish emission limits on coal-fired power plants located in the state, as these facilities are large sources of SO<sub>2</sub> pollution.

As the I-SIP submission does not incorporate emission limitations for large sources of SO<sub>2</sub> pollution, such as coal-fired power plants, the Proposed I-SIP must be revised.

<sup>7</sup> Modeling-based emissions limits are well-documented. For example, Minnesota has used SO<sub>2</sub> modeling to establish emission limits on several plants in order to avoid nonattainment designations. See Black Dog Plant Permit No. 03700003-11, Technical Support Document, at 5 & 10 (permit emission limits based on modeling analyses), attached hereto as Ex. 5; see also Allen S. King Title V Technical Support Document, at 6, 14, 16 & 39 (permit emission limits based on modeling analyses), attached hereto as Ex. 6.

**ii. MODELING IS THE APPROPRIATE TOOL FOR EVALUATING THE ADEQUACY OF INFRASTRUCTURE SIPs AND ENSURING ATTAINMENT AND MAINTENANCE OF THE SO<sub>2</sub> NAAQS.**

As outlined by EPA in the Final SO<sub>2</sub> NAAQS Rule, 75 Fed. Reg. at 35,551, air dispersion modeling is the best method for evaluating the short-term impacts of large SO<sub>2</sub> sources. This is consistent with EPA's historic use of air dispersion modeling for attainment designations and SIP revisions. Yet, New Jersey's Proposed I-SIP fails to include any air dispersion modeling-based emissions limits for large sources in the state. In fact, the Proposed I-SIP states that "[w]hen USEPA issues guidance or rules for modeling SO<sub>2</sub> sources, the Department will conduct any modeling or take any necessary steps that are required." Proposed I-SIP at 31. This is entirely improper and somewhat ironic since NJDEP has already successfully relied on this sort of modeling to support a claim that trans-boundary SO<sub>2</sub> pollution from a Pennsylvania source was contributing to nonattainment and interference with the maintenance of the one-hour SO<sub>2</sub> NAAQS in New Jersey. See *Genon Rema, LLC v. U.S. EPA*, 722 F.3d 513, 526 (3rd Cir. 2013).

NJDEP has long been on notice that modeling data is an important resource in the SO<sub>2</sub> NAAQS attainment and maintenance process. In fact, in EPA's 1994 SO<sub>2</sub> Guideline Document, EPA noted that "for SO<sub>2</sub> attainment demonstrations, monitoring data alone will generally not be adequate," U.S. EPA, 1994 SO<sub>2</sub> Guideline Document, [hereinafter "1994 SO<sub>2</sub> Guideline Document"], *available* at [http://www.epa.gov/ttn/oarpg/t1/memoranda/so2\\_guide\\_092109.pdf](http://www.epa.gov/ttn/oarpg/t1/memoranda/so2_guide_092109.pdf), at 2-5, and that "[a]ttainment determinations for SO<sub>2</sub> will generally not rely on ambient monitoring data alone, but instead will be supported by an acceptable modeling analysis which quantifies that the SIP strategy is sound and that enforceable emission limits are responsible for attainment." *Id.* at 2-1. The 1994 SO<sub>2</sub> Guideline Document goes on to note that monitoring alone is likely to be inadequate: "[f]or SO<sub>2</sub>, dispersion modeling will generally be necessary to evaluate comprehensively a source's impacts and to determine the areas of expected high concentrations based upon current conditions." *Id.* at 2-3.

Indeed, EPA's approval and acceptance of modeling for making attainment designations stretches back decades and demonstrates that modeling is equally applicable to determining the adequacy of an Infrastructure SIP. In 1983, the Office of Air Quality Planning and Standards ("OAQPS") issued a Section 107 Designation Policy Summary explaining that "air quality modeling emissions data, etc., should be used to determine if the monitoring data accurately characterize the worst case air quality in the area." Sheldon Meyers Memorandum re Section 107 Designation Policy Summary (April 21, 1983) at 1, attached hereto as Ex. 7. Without modeling data, the worst-case air quality may not be accurately characterized. In certain instances, EPA has relied solely on modeling data to determine nonattainment designations; demonstrating modeling is accepted and trustworthy. See *id.* at 2. In fact, reliance on modeling for nonattainment designations occurred as far back as the Carter Administration when, in 1978, EPA designated Laurel, Montana as nonattainment "due to measured and modeled violations of the primary SO<sub>2</sub> standard." *Mont. Sulphur & Chem. Co.*, 666 F.3d at 1181 (citing 43 Fed. Reg. 8,962 (Mar. 3, 1978)).

EPA's final 2010 SO<sub>2</sub> NAAQS rule simply built upon EPA's historical practice of using modeling to determine attainment and nonattainment status for SO<sub>2</sub> NAAQS. In doing so, EPA properly recognized the "strong source-oriented nature of SO<sub>2</sub> ambient impacts," Final SO<sub>2</sub> NAAQS Rule at 35,370, and concluded that the appropriate methodology for purposes of determining compliance, attainment, and nonattainment with the new NAAQS is modeling. See *id.* at 35,551 (describing dispersion modeling as "the most technically appropriate, efficient and readily available method for assessing short-term ambient SO<sub>2</sub> concentrations in areas with large point sources."). Accordingly, in promulgating the 2010 SO<sub>2</sub> NAAQS, EPA explained that, for the one-hour standard, "it is more appropriate and efficient to principally use modeling to assess compliance for medium to larger sources . . . ." *Id.* at 35,570. EPA subsequently explained in a White Paper on the Implementation of the 2010 Primary 1-Hour SO<sub>2</sub> NAAQS that using modeling to determine attainment for the SO<sub>2</sub> standard "could better address several potentially problematic issues than would the narrower monitoring-focused approach discussed in the proposal for the SO<sub>2</sub> NAAQS, including the unique source-specific impacts of SO<sub>2</sub> emissions and the special challenges SO<sub>2</sub> emissions have historically presented in terms of monitoring short-term SO<sub>2</sub> levels for comparison with the NAAQS in many situations (75 FR 35550)." EPA White Paper at 3-4, available at <http://www.epa.gov/airquality/sulfurdioxide/pdfs/20120522whitepaper.pdf>.

In addition, the use of modeling in the context of the SO<sub>2</sub> NAAQS has been upheld by the courts. For example, in *Montana Sulphur*, the company challenged a SIP call, a SIP disapproval, and a Federal Implementation Plan ("FIP") promulgation, because they were premised on a modeling analysis that showed the Billings/Laurel, Montana area was in nonattainment for SO<sub>2</sub>. 666 F.3d at 1184. The court rejected Montana Sulphur's argument that EPA's reliance on modeling was arbitrary and capricious or otherwise unlawful. *Id.* at 1185; see also *Sierra Club v. Costle*, 657 F.2d 298, 332 (D.C. Cir. 1981) ("Realistically, computer modeling is a useful and often essential tool for performing the Herculean labors Congress imposed on EPA in the Clean Air Act"); *Republic Steel Corp. v. Costle*, 621 F.2d 797, 805 (6th Cir. 1980) (approving use of modeling to predict future violations and incorporating "worst-case" assumptions regarding weather and full-capacity operations of pollutant sources). Further demonstrating the superiority of modeling, the D.C. Circuit has acknowledged the inherent problem of using monitored data for criteria pollutants, namely that "a monitor only measures air quality in its immediate vicinity." *Catawba County v. EPA*, 571 F.3d 20, 30 (D.C. Cir. 2009).

Indeed, EPA employs and relies on modeling to inform its designations because the agency is well aware that modeling produces reliable results. For example, as John C. Vimont, EPA Region 9's Regional Meteorologist, has stated under oath:

EPA does recognize the usefulness of ambient measurements for information on background concentrations, provided reliable monitoring techniques are available. EPA does not recommend, however, that ambient measurements be used as the sole basis of setting emission limitations or determining the ambient concentrations resulting from emissions from an industrial source. These should be based on an appropriate modeling analysis.

Declaration of John C. Vimont at 1, 11 (emphasis added), attached hereto as Ex. 8. Testimony as to the accuracy and appropriateness of modeling has also been presented by Roger Brode, a physical scientist in EPA's Air Quality Modeling Group who co-chairs the AMS/EPA Regulatory Model Improvement Committee (AERMIC) and the AERMOD Implementation Workgroup. See Declaration of Roger W. Brode at 1, 2, attached hereto as Ex. 9. Mr. Brode has stated under oath that AERMOD is "readily capable of accurately predicting whether the revised primary SO<sub>2</sub> NAAQS is attained and whether individual sources cause or contribute to a violation of the SO<sub>2</sub> NAAQS." *Id.* at 2. Mr. Brode has explained:

As part of the basis for EPA adopting the AERMOD model as the preferred model for nearfield applications in the *Guideline on Air Quality Models*, Appendix W to 40 CFR Part 51, the performance of the AERMOD model was extensively evaluated based on a total of 17 field study data bases (AERMOD: Latest Features and Evaluation Results. EPA-454/R-03-003. U.S. Environmental Protection Agency, Research Triangle Park (2003), portions of which are attached to this affidavit) ("EPA 2003"). The scope of the model evaluations conducted for AERMOD far exceeds the scope of evaluations conducted on any other model that has been adopted in Appendix W to Part 51. These evaluations demonstrate the overall good performance of the AERMOD model based on technically sound model evaluation procedures, and also illustrate the significant advancement in the science of dispersion modeling represented by the AERMOD model as compared to other models that have been used in the past. In particular, adoption of the AERMOD model has significantly reduced the potential for overestimation of ambient impacts from elevated sources in complex terrain compared to other-models.

*Id.* at 3-4 (emphasis added).

EPA's practice in a number of other contexts also demonstrates that modeling is a technically superior approach for ascertaining impacts on NAAQS, as well as the extensive history of EPA's preference for modeling over monitoring to evaluate compliance. For example, all NO<sub>2</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> NAAQS, and Prevention of Significant Deterioration ("PSD") increment compliance verification analyses are performed with air dispersion modeling, such as running AERMOD in a manner consistent with the *Guideline on Air Quality Models*. 40 C.F.R. § 52.21(l)(1). Indeed, in order to ensure consistency in how air impacts are determined, both existing sources and newly permitted sources should be assessed using the same methods. AERMOD modeling performs particularly well in evaluating emission sources with one or a handful of large emission points. The stacks are well characterized in terms of location, dimensions, and exhaust parameters, and have high release heights. AERMOD accurately models medium-to-large SO<sub>2</sub> sources—even with conditions of low wind speed, the use of off-site meteorological data, and variable weather conditions. Indeed, AERMOD has been tested and performs very well during conditions of low wind speeds:

AERMOD's evaluation analyses included a number of site-specific meteorological data sets that incorporate low wind speed conditions. For example, the Tracy



evaluation included meteorological data with wind speeds as low as 0.39 meter/second (m/s); the Westvaco evaluation included wind speeds as low as 0.31 m/s; the Kincaid SO<sub>2</sub> evaluation included wind speeds as low as 0.37 m/s; and the Lovett evaluation included wind speeds as low as 0.30 m/s. Concerns . . . regarding AERMOD's ability to model low wind speed conditions seem to neglect the data used in actual AERMOD evaluations.

Comments of Camille Sears 1, at 10, attached hereto as Ex. 10 (citing AERMOD evaluations and modeled meteorological data, available at [http://www.epa.gov/ttn/scram/dispersion\\_prefrec.htm](http://www.epa.gov/ttn/scram/dispersion_prefrec.htm)).

Finally, EPA's use of air dispersion modeling and AERMOD in particular was upheld in the context of New Jersey's Clean Air Act § 126 petition for resolution of cross-state impacts experienced in New Jersey due to SO<sub>2</sub> emissions from a Pennsylvania power plant. *See Genon Rema, LLC v. U.S. EPA*, 722 F.3d 513, 526 (3rd Cir. 2013). In this case, the EPA granted the New Jersey Department of Environmental Protection's 126 petition, finding that trans-boundary SO<sub>2</sub> emissions from the Portland coal-fired power plant in Pennsylvania were significantly contributing to nonattainment and interference with the maintenance of the one-hour SO<sub>2</sub> NAAQS in New Jersey. *Id.* at 518. Notably, EPA based its finding on a review of the AERMOD dispersion modeling submitted by New Jersey, its independent assessment of AERMOD, and other highly technical analyses. *Id.* The court upheld EPA's decision after examining the record, which showed that EPA had thoroughly examined the relevant scientific data and clearly articulated a satisfactory explanation of the action that established a rational connection between the facts found and the choice made. *Id.* at 525-28. Thus, New Jersey is well aware of the benefit, reliability, and accuracy of modeling in the context of the one-hour SO<sub>2</sub> NAAQS and has, itself, relied on this sort of modeling to protect the SO<sub>2</sub> NAAQS within its boundaries. Therefore, the State's decision in its Proposed I-SIP to abstain from modeling any stationary sources with regard to the one-hour SO<sub>2</sub> NAAQS is illogical.

For the one-hour SO<sub>2</sub> NAAQS, modeling is the most accurate means of determining attainment with the NAAQS, *see* Final SO<sub>2</sub> NAAQS Rule at 35,551, 35,570, yet New Jersey's Proposed I-SIP lacks SO<sub>2</sub> emissions limitations informed by air dispersion modeling. As a result, the Proposed I-SIP fails to ensure that New Jersey will achieve and maintain the 2010 one-hour SO<sub>2</sub> NAAQS. To comply with the Act's obligations, New Jersey's I-SIP must be revised to include adequate emissions limits informed by modeling—that is, source-specific one-hour SO<sub>2</sub> emission limits that show no exceedances of the NAAQS when modeled.

**iii. THE PROPOSED INFRASTRUCTURE SIP MUST INCLUDE ENFORCEABLE SO<sub>2</sub> EMISSION LIMITS WITH A ONE-HOUR AVERAGING PERIOD THAT APPLY AT ALL TIMES.**

An emission limitation necessary to comply with CAA Section 110(a)(2)(A) means "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this

chapter.” 42 U.S.C. § 7602(k). Therefore, SO<sub>2</sub> emission limitations contained in the I-SIP must include proper averaging times. Otherwise a proper numerical emission limit could still allow for peaks that exceed the NAAQS and yet not register as exceedances because they would be averaged with lower emissions at other times. The one-hour SO<sub>2</sub> NAAQS requires a one-hour averaging period.

In various contexts, EPA has stated that one-hour averaging times are necessary to comply with one-hour standards. For instance, in 2011, EPA disagreed with the Kansas Department of Health and Environment’s issuance of a PSD permit that contained a 30-day averaging time rather than a one-hour averaging period. See Letter from Karl Brooks, Regional Administrator, EPA Region 7 to Dr. Robert Moser, Secretary, Kansas Department of Health and Environment (Feb. 3, 2011), attached hereto as Ex. 11. EPA explained:

[i]t is well known that there can be considerable variability in actual 1-hour emission rates. Therefore, to ensure protection of the 1-hour . . . SO<sub>2</sub> NAAQS . . . the permit needs to contain . . . SO<sub>2</sub> 1-hour average emission limits for both new and existing steam generating units. To ensure the source does not cause or contribute to air pollution in violation of the NAAQS, the emission limits should be consistent with the modeling rates and have the same averaging period, i.e. in this case maximum hourly emission limits consistent with the 1-hour NAAQS.

*Id.* at 2. Similarly, in its disapproval of Missouri’s SIP in 2006, EPA determined that emission rates in the SIP were “not protective of the short-term sulfur dioxide NAAQS” because they were based on an annual average. See Approval and Promulgation of Implementation Plans; State of Missouri, 71 Fed. Reg. 12,623, 12,624 (Mar. 13, 2006). In 2011, the Environmental Appeals Board confirmed that emission limits for SO<sub>2</sub> should be based on hourly averaging times, and rejected an agency’s attempt to use a 3-hour averaging time instead. *In re: Mississippi Lime Co.*, PSDAPLPEAL11-01, 2011 WL 3557194, at \*26-27 (E.P.A. Aug. 9, 2011) (“Emission limits should be based on concentration estimates for the averaging time that results in the most stringent control requirements. 40 C.F.R. pt. 51, app. W, § 10.2.3.1.a.”).

In addition to including emissions limits based on a one-hour averaging period, New Jersey’s Proposed I-SIP must require monitoring of SO<sub>2</sub> emission limits on a continuous basis using a continuous emission monitor system or systems. Clean Air Act section 110(a)(2)(F) requires New Jersey’s Proposed I-SIP to establish a system to monitor emissions from stationary sources and to submit periodic emissions reports. In order to ensure emission limits which are protective of the one-hour SO<sub>2</sub> NAAQS, the I-SIP must require that SO<sub>2</sub> emissions are monitored from sources during every hour of operation, regardless of whether SO<sub>2</sub> pollutant control equipment has been installed or not.

New Jersey’s I-SIP must implement, maintain, and enforce the NAAQS and therefore must include “enforceable emission limitations” to ensure its effectiveness. 42 U.S.C. § 7410(a)(2)(A). Only one-hour averaging periods can ensure compliance with the one-hour SO<sub>2</sub>

NAAQS.<sup>8</sup> Therefore, to ensure that all areas in New Jersey attain and maintain the one-hour SO<sub>2</sub> NAAQS, NJDEP must revise its I-SIP to include enforceable emission limits with one-hour averaging times, monitored continuously, for power plants and other large sources of SO<sub>2</sub>. These emission limits must apply at all times, including periods of start-up, shutdown, and malfunction.

**iv. ENFORCEABLE SO<sub>2</sub> EMISSION LIMITS ARE NECESSARY TO AVOID NONATTAINMENT DESIGNATIONS.**

In addition to being a required component of the I-SIP, enforceable emission limits are necessary to avoid future nonattainment designations in areas where modeling or monitoring shows that SO<sub>2</sub> levels exceed the one-hour NAAQS. See EPA, Next Steps for Area Designations and Implementation of the Sulfur Dioxide National Ambient Air Quality Standard at 4 (Feb. 6, 2013), available at <http://www.epa.gov/airquality/sulfurdioxide/pdfs/20130207SO2StrategyPaper.pdf> (explaining that agencies should work to avoid a nonattainment designation by “establishing and submitting to EPA enforceable emission limitations ensuring that attainment with the SO<sub>2</sub> NAAQS (in the form of permit limits, source-specific SIP revisions, or other permanent and enforceable legal documents) occurs prior to the date that final designations based on modeling information are issued”)); see also Final SO<sub>2</sub> NAAQS Rule, 75 Fed. at 35,553 (areas will “be designated ‘nonattainment’ if either available monitoring data or modeling shows that a violation exists, or ‘attainment’ if both available monitoring data and modeling indicate the area is attaining” (emphasis added)). Currently, no areas in New Jersey have been designated as nonattainment, but that can be expected to change as the designation process continues and air dispersion modeling is conducted for large SO<sub>2</sub> sources in and around the state.

Nonattainment designations create rigorous Clean Air Act requirements with which states must comply, including offsets and nonattainment NSR. By using this infrastructure SIP opportunity to set enforceable emissions limits with regard to the SO<sub>2</sub> NAAQS, New Jersey could not only protect public health but also avoid having counties formally designated as nonattainment. Addressing the issue now will also bring regulatory certainty to owners of coal-fired power plants in New Jersey, which could ultimately save these regulated entities money. Many large stationary sources of SO<sub>2</sub> pollution, including coal-fired power plants, will need to analyze and likely improve the efficiency of their sulfur controls in light of recent environmental rules and standards, such as MATS, CAIR/CSAPR, Regional Haze, and various NAAQS. As a result, establishing emission limits and pollution control requirements through this I-SIP will allow sources to plan with greater certainty how they intend to comply with all potentially applicable requirements, including the 2010 SO<sub>2</sub> NAAQS, and determine whether additional SO<sub>2</sub> controls must be installed in order to meet these requirements. Addressing the issue here would better allow sources to comply with life-saving pollution reduction rules most economically.

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<sup>8</sup> Though any averaging time longer than one hour will impermissibly allow exceedances of the short-term standard, if a state nonetheless uses a longer averaging time, the numerical emission limits at minimum would then need to be ratcheted down accordingly to ensure that no short-term exceedances of the standard occur.

Indeed, industry itself has made this same exact point to EPA, though in slightly different terms:

Multiple recently-issued rules all focus on large combustion source-related emissions (e.g. boilers) and may require significant capital expenditures to achieve compliance. The compliance options and deadlines for these rules, however, vary widely. If the rules compliance deadlines and requirements are not coordinated, the sources subject to them will be forced to make investment decisions without a full understanding of what may be required to comply with the rules having later compliance deadline. This may result in a series of sub-optimized decisions . . . [with a] suboptimal overall solution—both from a cost and environmental perspective. For example . . . a source could invest in Boiler MACT controls without a full understanding of the SO<sub>2</sub> NAAQS issued because SO<sub>2</sub> air dispersion modeling has not yet been completed . . . .

See NAAQS Implementation Coalition Comments on the 10th Modeling Conference, March 6, 2012 Joseph C. Stanko, Hunton and Williams, at 10, attached hereto as Ex. 12. By regulating these sort of facilities now via appropriate emission limits and requirements in this I-SIP, the state of New Jersey can prevent a source from incurring additional expenses through piecemeal legislation. Accordingly, NJDEP must amend the Proposed I-SIP to establish enforceable emission limits to ensure that large sources of SO<sub>2</sub> do not cause exceedances of the one-hour SO<sub>2</sub> NAAQS.

**V. THE INFRASTRUCTURE SIP MUST BE BASED ON AN ANALYSIS OF WHETHER NEW JERSEY'S EMISSIONS SIGNIFICANTLY CONTRIBUTE TO NONATTAINMENT AND INTERFERENCE WITH THE MAINTENANCE OF THE 2010 SO<sub>2</sub> NAAQS IN DOWNWIND STATES.**

As drafted, New Jersey's Proposed I-SIP fails to sufficiently demonstrate how it will prevent emissions within the state from significantly contributing to nonattainment and interfering with the maintenance of the 2010 SO<sub>2</sub> NAAQS in other states. This requirement is commonly known as the "Good Neighbor Provision" and is found in Section 110(a)(2)(D)(i) of the Clean Air Act. Under section 110(a)(2)(D), an I-SIP must contain "adequate provisions (i) prohibiting . . . any source . . . from emitting any air pollutant in amounts which will—(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard . . . ." 42 U.S.C. § 7410(a)(2)(D)(i)(I).

Under the Good Neighbor Provision of Section 110(a)(2)(D)(i), New Jersey's Infrastructure SIP is required to contain adequate provisions prohibiting any source or other type of emission activity in one State from contributing significantly to nonattainment or interfering with maintenance of the NAAQS in another State. New Jersey claims that it has implemented rules to control sources that may significantly contribute to the nonattainment of a federal ambient air quality standards in another state and, therefore, that it has addressed its downwind contributions from New Jersey sources. See Proposed I-SIP at 29. However, New

Jersey has failed to include any sort of demonstration that these listed measures adequately control SO<sub>2</sub> emissions to a level that the state's contribution to any downwind nonattainment or maintenance area is less than significant for the 2010 SO<sub>2</sub> NAAQS. Therefore, in order to comply with Section 110(a)(2)(D)(i), New Jersey's Proposed I-SIP must be revised to include such an analysis. Without such a demonstration, the state cannot certify that its Proposed I-SIP complies with Section 110(a)(2)(D)(i) of the Act.

**C. The Proposed Infrastructure SIP Fails to Include the Requisite Analysis to Demonstrate that New Jersey Does Not Significantly Contribute to Nonattainment or Interference with Maintenance of the 2008 Ozone NAAQS in Downwind States.**

As drafted, New Jersey's Proposed I-SIP fails to sufficiently address how it plans to prevent its emissions from significantly contributing to nonattainment and interfering with the maintenance of the 2008 Ozone NAAQS in other states in accordance with the "Good Neighbor Provision" of Clean Air Act Section 110(a)(2)(D)(i). In addition to maintaining its own air quality, New Jersey is required to prevent significant contributions to nonattainment in, or interfere with the maintenance of the 2008 Ozone NAAQS by, any other State. See 42 U.S.C. 7410(a)(2)(D)(i). It has already been demonstrated that emissions of air pollutants in New Jersey are contributing to other states' pollution problems. See EPA website, Cross-State Air Pollution Rule in New Jersey, <http://www.epa.gov/cleanairactbenefits/whereyoulive/nj.html> (stating that air pollution reductions under CSAPR would contribute to improved air quality in CT, DE, ME, MD, MA, NH, NY, PA, RI, and VA.). While we appreciate the list of state measures meant to control emissions of ozone precursors that New Jersey has noted in its Proposed I-SIP, see Proposed I-SIP at 29-30, New Jersey has failed to provide an analysis or demonstration that its emission reduction programs are adequate to prevent significant contributions to downwind states. Therefore, New Jersey's submittal is inadequate and must be revised to satisfy its requirement under Section 110(a)(2)(D)(i).

In order to comply with Section 110(a)(2)(D)(i), New Jersey's I-SIP must include an analysis demonstrating that its contribution to any downwind maintenance or nonattainment area is less than a significant level for the 2008 Ozone NAAQS. That is, the state must show that NO<sub>x</sub> emissions from New Jersey do not contribute more than 0.75 ppb to ozone in downwind nonattainment or maintenance areas. Without such a demonstration, the state cannot certify that its Proposed I-SIP complies with Section 110(a)(2)(D)(i) of the Act.

New Jersey cannot simply cite to its NO<sub>x</sub> RACT rules or its NSR requirements to certify that the state is not contributing to nonattainment or interference with maintenance of the NAAQS in downwind states. See Proposed I-SIP at 29. For instance, New Jersey has failed to demonstrate in the context of this I-SIP that the NO<sub>x</sub> RACT emission limits are stringent enough to adequately control emissions from its large stationary sources, nor has it shown that those limits have been properly included in all relevant Title V permits. New Jersey has failed to demonstrate that it has set enforceable emission limits in this I-SIP on any large sources contributing to problems with the attainment and maintenance of the NAAQS in other states. Thus, although New Jersey has claimed to have taken steps to include enforceable emissions

limits with shorter averaging times and required certain pollution controls, because the state has failed to demonstrate that it is not significantly contributing to any downwind nonattainment or maintenance areas, the Proposed I-SIP must be revised to include such an analysis so that it complies with Section 110(a)(2)(D)(i) of the Clean Air Act.

Once the state properly analyzes its contributions to downwind states with regard to the 2008 Ozone NAAQS, if the state determines that it does significantly contribute, it would need to remedy that contribution through appropriate I-SIP requirements. In such a case, short-term stringent emission limits and installation and continuous operation of control devices, such as selective catalytic reduction ("SCR") technology, on EGUs are generally the most cost effective option to ensure the 2008 Ozone NAAQS is attained and maintained.

For instance, in New Jersey, where the entire state has been designated nonattainment under the 2008 Ozone NAAQS, all EGUs should have short-term emission limits based on available and demonstrated control technology. In particular, a limit of 0.07 pound per MMBtu ("lb/MMBtu") based on an eight-hour averaging time that applies at all times, including during startup and shut down is readily achievable. In fact, EPA has long acknowledged that 90% removal efficiency for SCR on coal-burning units is achievable. See EPA, "Ambient Air Quality Impact Report for Desert Rock Energy Facility PSD Permit," at 8, Table 3, attached hereto as Ex. 13. Thus, taking even the highest NO<sub>x</sub> emission rate that EPA has set with no post-combustion control—that is, 0.50 lb/MMBtu—and applying the 90% control achievable by SCR, an emission limit of 0.05 lb/MMBtu is clearly achievable. Even adding a "safety factor" of 40% NJDEP could establish limitations in the I-SIP at 0.07 lb/MMBtu. A review of EPA's RACT/BACT/LAER clearinghouse demonstrates that numerous PSD permits for coal-burning boilers were issued in the early 2000s with emission limits of 0.07 lb/MMBtu. Actual performance data also confirms that a 0.07 lb/MMBtu limit is easily achievable. This is not a new achievement, either. For example, during the 2006 ozone season, approximately 88 coal-fired units achieved emission limits of less than 0.07. See CAMD NO<sub>x</sub> Ranked Low to High Ozone 2006, attached hereto as Ex. 14. Indeed, more recently, permits for proposed new coal plants have been issued with NO<sub>x</sub> limits of 0.05 lb/MMBtu. For example, a 2009 Permit to Install issued in Michigan for the Consumers Energy Karn-Weadock plant included a NO<sub>x</sub> emissions limit of 0.05 lb/MMBtu. See Permit to Install 341-07, December 29, 2009 at 9, available at <http://www.deq.state.mi.us/aps/downloads/permits/pubnotice/341-07/341-07.pdf>. In fact, as far back as 2001, Babcock & Wilcox Company stated that a 0.016 lb/MMBtu limit was achievable for units burning bituminous coal and a 0.008 lb/MMBtu limit could be achieved for those burning Powder River Basin coal. See *How Low Can We Go? Controlling Emissions in New Coal Fired Power Plants* (2001) at 5, Table 2, available at [http://170.94.134.156/ftpoot/Pub/commission/p/Closed%20Permit%20Dockets%202006-2010/08-007-P%20AEP%20Service%20Corp%20%26%20Swepeco-Hempstead%20Co%20Hunting%20Club/2008-12-03\\_Ex\\_58\\_B%26W\\_How\\_Low\\_Can\\_We\\_Go.pdf](http://170.94.134.156/ftpoot/Pub/commission/p/Closed%20Permit%20Dockets%202006-2010/08-007-P%20AEP%20Service%20Corp%20%26%20Swepeco-Hempstead%20Co%20Hunting%20Club/2008-12-03_Ex_58_B%26W_How_Low_Can_We_Go.pdf). Accordingly, New Jersey's I-SIP must be revised to include appropriate emissions limits for the State's coal-fired EGUs.

In addition, if, based on the requisite analysis of contributions to downwind states, New Jersey determines that a reduction in pollution is necessary to prevent significant contribution

to downwind nonattainment and maintenance areas and necessary emission limits are set, those limits should be set on a pounds per hour ("lb/hr") basis, based on, at most, a corresponding 0.07 lb/MMBtu limit. That is, a lb/hr limit should be calculated by multiplying 0.07 MMBtu/hr times the EGU's maximum, or maximum allowable, heat input. Setting a lb/hour limit will ensure consistent protection of the ambient air quality regardless of whether the claimed maximum heat input capacity for the unit is accurate or changes in the future. In addition, a lb/hour limit would address the issue of variations in mass emissions during startup and shutdown so that even if the NO<sub>x</sub> emission rate in lb/MMBtu is higher during startup and shutdown (for instance when SCR technology cannot be engaged), hourly emissions of SO<sub>2</sub> would not cause or contribute to violations of the one-hour SO<sub>2</sub> NAAQS.

Finally, where emission limits are necessary, New Jersey should set any limit with, at most, an 8-hour averaging time to protect the 8-hour averaging time of the 2008 Ozone NAAQS. Without short-term averaging times, stationary sources could emit NO<sub>x</sub> at higher rates at precisely the time when the ozone levels are the worst and still meet an emission limit with a longer-term average period by reducing their NO<sub>x</sub> emissions during periods when the ozone levels are not as severe.

### III. CONCLUSION

For the reasons set forth above, New Jersey's Proposed I-SIP fails to ensure that 2010 SO<sub>2</sub> and 2008 Ozone NAAQS are attained and maintained. New Jersey must adopt new provisions in the I-SIP to protect public health and comply with the Act's requirements. The Sierra Club is happy to provide any other information that might assist New Jersey in developing an I-SIP that fully complies with the Clean Air Act.

Respectfully submitted,

/s Kathryn Amirpashaie

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Kathryn M. Amirpashaie, Esq.  
Law Office of Kathryn M. Amirpashaie, PLC  
7556 Blanford Court  
Alexandria, VA 22315  
Tel.: 703.851.9111  
E-mail: [kmalawoffice@gmail.com](mailto:kmalawoffice@gmail.com)  
*Outside Counsel for the Sierra Club*