

authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898.

#### List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

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

**Dated:** April 28, 2009.

**Ira W. Leighton,**

*Acting Regional Administrator, EPA New England.*

[FR Doc. E9-10660 Filed 5-7-09; 8:45 am]

**BILLING CODE 6560-50-P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R02-OAR-2008-0497, FRL-8901-3]

#### Approval and Promulgation of Implementation Plans; New Jersey Ozone Attainment Demonstration

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing action on the ozone attainment demonstration portion of a comprehensive State Implementation Plan revision submitted by New Jersey to meet Clean Air Act requirements for attaining the 8-hour ozone national ambient air quality standard. EPA is proposing to disapprove New Jersey's demonstration of attainment of the 8-hour ozone standard.

**DATES:** Comments must be received on or before June 8, 2009.

**ADDRESSES:** Submit your comments, identified by Docket Number EPA-R02-OAR-2008-0497, by one of the following methods:

- *www.regulations.gov*: Follow the on-line instructions for submitting comments.
- *E-mail*: [Werner.Raymond@epa.gov](mailto:Werner.Raymond@epa.gov).
- *Fax*: 212-637-3901
- *Mail*: Raymond Werner, Chief, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th Floor, New York, New York 10007-1866.
- *Hand Delivery*: Raymond Werner, Chief, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th

Floor, New York, New York 10007-1866. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30 excluding Federal holidays.

**Instructions:** Direct your comments to Docket No. EPA-R02-OAR-2008-0497. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov) your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters or any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

**Docket:** All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the Environmental Protection Agency, Region II Office, Air Programs Branch, 290 Broadway, 25th Floor, New York, New York 10007-1866. EPA requests, if at all possible, that you contact the individual listed in the **FOR FURTHER**

**INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8 a.m. to 4 p.m., excluding Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Robert Kelly ([kelly.bob@epa.gov](mailto:kelly.bob@epa.gov)) Air Programs Branch, Environmental Protection Agency, 290 Broadway, 25th Floor, New York, New York 10007-1866, (212) 637-4249.

#### SUPPLEMENTARY INFORMATION:

##### Table of Contents

- I. What Action Is EPA Proposing?
- II. Background Information
  - A. History and Time Frame for the State's Attainment Demonstration SIP
  - B. Moderate Area Requirements
  - C. Clean Air Act Requirement for Multi-State Ozone Nonattainment Areas
- III. What Was Included in New Jersey's SIP Submittals?
- IV. EPA's Review and Technical Information
  - A. Attainment Demonstration
    1. What Are the Components of a Modeled Attainment Demonstration?
    2. What Were the Results of the State's Weight of Evidence Analysis?
      - a. EPA Requirements for the Weight of Evidence Analysis
      - b. State's Weight of Evidence Argument and EPA's Evaluation
      - c. Summary of Weight of Evidence Discussion
    3. What Is EPA's Evaluation?
  - V. What Are the Consequences of a Disapproved SIP?
    - A. What Are the Act's Provisions for Sanctions?
    - B. What Federal Implementation Plan Provisions Apply if a State Fails to Submit an Approvable Plan?
    - C. What Are the Ramifications Regarding Conformity?
  - VI. What Are EPA's Conclusions?
  - VII. Statutory and Executive Order Reviews

#### I. What Action is EPA Proposing?

The Environmental Protection Agency (EPA) has reviewed New Jersey's comprehensive State Implementation Plan (SIP) revision for attaining the 0.08 ppm 8-hour ozone national ambient air quality standards (NAAQS or standard)<sup>1</sup> in the State of New Jersey's moderate nonattainment areas along with other related Clean Air Act (Act) requirements necessary to insure attainment of the standard. The EPA is proposing to disapprove New Jersey's 8-hour ozone attainment demonstration because the EPA has determined that the photochemical modeling does not demonstrate attainment and the weight of evidence analysis that New Jersey uses to support the attainment demonstration does not provide

<sup>1</sup> Unless otherwise specifically noted in the action, references to the 8-hour ozone standard are to the 0.08 ppm ozone standard promulgated in 1997.

sufficient evidence to provide confidence that the two nonattainment areas located in New Jersey will attain the NAAQS by the June 2010 deadline.

EPA's analysis and findings are discussed in this proposed rulemaking and a more detailed discussion is contained in the Technical Support Document for this Proposal which is available on line at [www.regulations.gov](http://www.regulations.gov), Docket number EPA-R02-OAR-2008-0497.

## II. Background Information

### A. History and Time Frame for the State's Attainment Demonstration SIP

In 1997, EPA revised the health-based NAAQS for ozone, setting it at 0.08 parts per million (ppm) averaged over an 8-hour time frame. EPA set the 8-hour ozone standard based on scientific evidence demonstrating that ozone causes adverse health effects at lower ozone concentrations and over longer periods of time than was understood when the pre-existing 1-hour ozone standard was set. EPA determined that the 8-hour standard would be more protective of human health, especially with regard to children and adults who are active outdoors, and individuals with a pre-existing respiratory disease, such as asthma.

On April 30, 2004 (69 FR 23951), EPA finalized its attainment/nonattainment designations for areas across the country with respect to the 8-hour ozone standard. These actions became effective on June 15, 2004. In addition, EPA promulgated its Phase 1 Rule for implementation of the 8-hour standard, which provided how areas designated nonattainment for the 8-hour ozone standard would be classified (April 30, 2004 (69 FR 23951)). The entire state of New Jersey is classified as being in nonattainment, divided between two 8-hour ozone moderate nonattainment areas it shares with other states, the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area, and the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE nonattainment area. The New Jersey portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area consists of the following New Jersey counties: Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union and Warren. The New Jersey portion of the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE nonattainment area consists of the following New Jersey counties: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean and Salem.

These designations triggered the Act's requirements under section 182(b) for moderate nonattainment areas, including a requirement to submit an attainment demonstration. EPA's Phase 2 8-hour ozone implementation rule, published on November 29, 2005 (70 FR 71612) (Phase 2 Rule) specifies that states must submit attainment demonstrations for their nonattainment areas to the EPA by no later than three years from the effective date of designation, that is, by June 15, 2007. 40 CFR 51.908(a)

### B. Moderate Area Requirements

On November 29, 2005, EPA published the Phase 2 Implementation rule which addresses the control obligations that apply to areas designated nonattainment for the 8-hour NAAQS. Among other things, the Phase 1 and Phase 2 Rules outline the SIP requirements and deadlines for various requirements in areas designated as moderate nonattainment. For such areas modeling and attainment demonstrations with projection year emission inventories were due by June 15, 2007, along with reasonable further progress plans, reasonably available control measures, motor vehicle emissions budgets and contingency measures (40 CFR 51.908(a), and (c) 59.910, 59.912). This action addresses New Jersey's demonstration of attainment of the 8-hour ozone standard, which for moderate areas is to be attained by the ozone season before the attainment date of June 2010. In order to demonstrate attainment by June 2010, the area must adopt and implement all controls necessary for attainment by the beginning of the 2009 ozone season and demonstrate that the level of the standard will be met during the 2009 ozone season.

### C. Clean Air Act Requirement for Multi-State Ozone Nonattainment Areas

Section 182(j) of the Clean Air Act requires each state within a multi-state ozone nonattainment area to specifically use photochemical grid modeling and take all reasonable steps to coordinate, substantively and procedurally, the revisions and implementation of State implementation plans applicable to the nonattainment area concerned. Under this subsection of the Clean Air Act, EPA may not approve any SIP revision for a State that fails to comply with these requirements.

## III. What Was Included in New Jersey's SIP Submittals?

After completing the appropriate public notice and comment procedures, New Jersey made a submittal in order to

address the Act's 8-hour ozone attainment requirements identified in Section II.A.2. On October 29, 2007, New Jersey submitted a comprehensive 8-hour ozone SIP for the New Jersey portions of the New York-Northern New Jersey-Long Island, NY-NJ-CT and the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE nonattainment areas. It included attainment demonstrations, reasonable further progress (RFP) plans for 2008 and 2009, reasonably available control measures analyses for both areas, contingency measures, on-road motor vehicle emission budgets, and general conformity emission budgets for McGuire Air Force Base and Lakehurst Naval Air Station. This SIP revision was subject to notice and comment by the public and the State addressed the comments received on the proposed SIPs before adopting the plans and submitting them for EPA review and approval into the SIP.

Only the attainment demonstration is evaluated in this proposal. EPA has evaluated and proposed action on the other portions of New Jersey's SIP in a separate **Federal Register** action. See 74 FR 2945, January 16, 2009.

## IV. EPA's Review and Technical Information

### A. Attainment Demonstration

#### 1. What Are the Components of a Modeled Attainment Demonstration?

Section 110(a)(2)(k) of the Clean Air Act requires states to prepare air quality modeling to demonstrate how they will meet ambient air quality standards. EPA determined that states must use photochemical grid modeling, or any other analytical method determined by the Administrator to be at least as effective, to demonstrate attainment of the ozone health-based standard in areas classified as 'moderate' or above, and to do so by the required attainment date. See 40 CFR 51.908(c). In 40 CFR 51.903, EPA specified how areas would be classified with regard to the 8-hour ozone standard set by EPA in 1997. EPA followed these procedures and classified the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and New York-Northern New Jersey-Long Island, NY-NJ-CT ozone nonattainment areas as moderate (69 FR 23858). Since the attainment date is June 2010 for moderate areas, these areas must achieve emission reductions by the beginning of the ozone season of 2009 in order for ozone concentrations to be reduced and meet the level of the standard during the last complete ozone season before the 2010 deadline. See 40 CFR 51.908(d).

EPA's photochemical modeling guidance is found at *Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze*, EPA-454/B-07-002, April 2007. The photochemical modeling guidance is divided into two parts. One part describes how to use a photochemical grid model for ozone to assess whether an area will come into attainment of the air quality standard. A second part describes how the user should perform supplemental analyses, using various analytical methods, to determine if the model overpredicts, underpredicts, or accurately predicts the air quality improvement projected to occur by the attainment date. The guidance indicates that states should review these supplemental analyses, in combination with the modeling analysis, in a "weight of evidence" assessment to determine whether each area is likely to achieve timely attainment.

New Jersey's SIP submittal (also referred to as the New Jersey SIP) addresses each of the elements of a modeling attainment demonstration. The submittal explains how on warm, sunny days, winds at the surface and aloft move emissions from sources of ozone-forming chemicals within and outside New Jersey to create high ozone concentrations in New Jersey. In

addition, it indicates that emissions from large combustion sources are transported eastward by upper level winds to the east coast, adding to the ozone formed locally.

The Ozone Transport Commission's (OTC's) Modeling Committee developed a protocol for modeling the ozone problem in the northeastern United States. The OTC Modeling Committee coordinated preparing and running the photochemical grid model. It chose the Community Multi-scale Air Quality Model (CMAQ) as the photochemical grid model of choice. EPA concurs that this model is appropriate for modeling the formation and distribution of ozone. The model domain covered almost all of the eastern United States, with a high-resolution grid covering the states in the northeast ozone transport region, including New Jersey.

The OTC Modeling Committee used weather data for the entire 2002 ozone season in the CMAQ. 2002 was the base year for the attainment plans and the year of the emission inventory used in the base year modeling. Using a full ozone season covers many different weather conditions when ozone episodes occur and exceeds EPA's recommendations for episode selection. The OTC Modeling Committee used a Mesoscale Meteorological model, version five (MM5), a weather forecast model developed by Pennsylvania State

University and the National Center for Atmospheric Research for the weather conditions used by the photochemical grid model. Details about how the states used the MM5 model are in Appendix D4 of New Jersey's SIP submittal.

States across the eastern United States provided emissions information from their sources to be used in the model. The Mid Atlantic Regional Air Management Association (MARAMA) collected and quality assured the states' emissions data and processed these data for the photochemical grid model to use. The states also included the control measures that were already adopted as well as the control measures that the state was committing to adopt from a list of "Beyond On the Way" (BOTW) control measures. The lists of control measures provided by the states to be included in the modeling are summarized in Table 1. Emissions data for the model from outside the Northeast was obtained from other regional planning organizations. States provided projected emissions for 2009 that account for emission changes due to regulations the states plan to implement by the beginning of the 2009 ozone season, as well as expected growth. The modeling uses these emissions to calculate ozone concentrations for the attainment ozone season of 2009.

TABLE 1—OZONE TRANSPORT REGION-WIDE MODELING ASSUMPTIONS FOR THE 2009 BOTW MODEL RUN

	Con- sumer products 2005/ 2009	PFC 2005/ 2009	Asphalt paving	Adhe- sives & sealants	ICI boilers—area sources			ICI boilers—non-EGU point sources					Cement kilns	Glass furnaces	Asphalt plants
					< 25 mmBtu/hr	25–50 mmBtu/hr	50–100 mmBtu/hr	< 25 mmBtu/hr	25–50 mmBtu/hr	50–100 mmBtu/hr	100–250 mmBtu/hr	>250 mmBtu/hr			
NY NAA:															
Connecticut .....	X	X	X	X	X	X	X	X	X	X	X	.....	.....	.....	X
New Jersey .....	X	X	X	X	.....	X	X	X	.....	.....	X	.....	.....	.....	.....
New York .....	X	X	X	X	X	X	X	X	X	X	X	.....	X	X	X
Phila. NAA:															
Delaware .....	X	X	.....	X	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	.....
Maryland .....	X	X	X	X	.....	.....	.....	.....	.....	.....	X	.....	X	X	.....
New Jersey .....	X	X	X	X	.....	X	X	X	.....	.....	X	.....	.....	.....	.....
Pennsylvania .....	X	X	.....	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	X	.....
Other States:															
Maine .....	X	X	.....	X	.....	.....	.....	.....	.....	.....	.....	.....	X	.....	.....
New Hampshire .....	X	X	X	.....	.....	.....	.....	.....	X	X	X	.....	.....	.....	.....
Vermont .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts .....	X	.....	X	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	X	.....
Rhode Island .....	X	X	X	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
DC .....	X	X	X	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	X

\*Source: MACTEC. Development of Emission Projections for 2009, 2012, and 2018 for NonEGU Point, Area, and Nonroad Sources in the MANE-VU Region, Final TSD. Prepared for the Mid-Atlantic Regional Air Management Association by MACTEC Federal Programs, Inc., February 28, 2007.

The states that share nonattainment areas with New Jersey have chosen to adopt different sets of control strategies, as shown in Table 1. This Table does not include additional measures that New Jersey has labeled as "quantifiable additional measures" and "unquantifiable additional measures." These additional measures, that New Jersey's SIP submittal indicates are necessary to show attainment of the

ozone standard, were not included in the photochemical grid modeling. Some, but not all, of New Jersey's neighboring states are planning to implement these additional measures.

The performance of the CMAQ photochemical grid model in predicting ozone, and the chemicals that form ozone, met EPA's guidelines for model performance. The model outputs are generally consistent with the day-to-day patterns of observed data, with low bias

and error. The OTC Modeling Committee noted that the modeling system tends to overpredict low concentrations and slightly underpredict peak concentrations. EPA concurs with New Jersey's assessment that the model was properly set up, met all EPA performance requirements and was appropriate for use in New Jersey's nonattainment areas.

For the attainment analysis, the states used the results from the photochemical

grid model in a relative sense, as recommended by EPA's photochemical modeling guidance, by calculating the difference between ozone predicted by the photochemical grid model in 2002 and ozone predicted using the emission controls New Jersey and other states planned to have in place by 2009.<sup>2</sup> To meet EPA's attainment test, when the difference in ozone from 2002 to 2009 is applied to the baseline air quality data centered in the base year of 2002, the resulting 2009 prediction must be that ozone is less than 85 parts per billion (ppb) at all monitoring stations.

In summary, the basic photochemical grid modeling used by New Jersey in its SIP submittal meets EPA's guidelines and, when used with the methods recommended in EPA's modeling guidance, is acceptable to EPA. When New Jersey applies EPA's methods to its data, using the photochemical grid model that includes the modeled emission reduction strategies prepared by New Jersey and the OTC states, it predicts that ozone levels in the attainment year would be 92 ppb in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and 90 ppb in the New York-Northern New Jersey-Long Island, NY-NJ-CT ozone nonattainment areas. Thus, the photochemical model predicts New Jersey will not reach the 84 ppb concentration level that marks attainment of the ozone standard by the 2009 ozone season.

## 2. What Were the Results of the State's Weight of Evidence Analysis?

### a. EPA Requirements for the Weight of Evidence Analysis

EPA's photochemical modeling guidance strongly recommends states complement the photochemical air quality modeling in situations where modeling predicts the area to be close to (within several parts per billion of) the ozone standard. While this is not the case in New Jersey where photochemical modeling predicts levels significantly greater than the ozone standard, New Jersey nevertheless chose to perform additional analyses to

determine if attainment could be demonstrated. EPA can accept results of additional analyses to be used in a weight of evidence determination to show that attainment is likely in spite of photochemical modeling predictions to the contrary. However, the greater the difference between the ozone standard and the photochemical modeling predictions, the more compelling the additional evidence produced by these additional analyses needs to be. EPA notes in its guidance that if the concentration predicted by the photochemical model is 88 ppb or higher, it is far less likely that the more qualitative arguments made in a weight of evidence determination can be sufficiently convincing to conclude that the ozone standard will be attained. In New Jersey's case, the photochemical model predictions of 92 ppb in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and 90 ppb in the New York-Northern New Jersey-Long Island, NY-NJ-CT ozone nonattainment areas exceed 88 ppb. Thus the evidence needed to show that these areas will actually attain the ozone standard, despite the model's predictions, must be very compelling for EPA to approve these attainment demonstrations.

### b. State's Weight of Evidence Argument and EPA's Evaluation

The photochemical modeling results, used in accordance with EPA's guidelines, predict that New Jersey's nonattainment areas will not attain by a wide margin by the 2009 ozone season. New Jersey's SIP submittal uses alternatives to the EPA guideline methods to adjust for perceived flaws in the photochemical grid model and estimate the ozone reductions that may be produced by additional measures not included in the model. New Jersey supports their alternatives using data and scientific research to make the case that its nonattainment areas could attain the ozone standard by the 2009 ozone season.

EPA has carefully reviewed New Jersey's attainment demonstration

including these supplementary data and research studies. EPA attempted to determine if the additional information provided by New Jersey is an acceptable supplement to the photochemical grid modeling and can be approved by EPA to meet the Clean Air Act requirement as "any other analytical method determined to be at least as effective" to supplement the photochemical grid modeling (40 CFR 51.908). EPA has evaluated the information provided by the State and other information relevant to whether or not New Jersey's ozone nonattainment areas will attain the ozone standard by 2009 and concludes that this information does not demonstrate that New Jersey will attain the ozone standard by 2009. We discuss the details of New Jersey's analyses and EPA's conclusions in the sections that follow.

New Jersey's weight of evidence assessment considers two approaches to "adjust" the photochemical model predictions in 2009. One approach predicts that neither of the two nonattainment areas in which New Jersey is located will attain the standard in 2009 based on modeling alone. The second approach predicts the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area could attain the standard in 2009 based on adjusted photochemical modeling predictions. New Jersey's SIP submittal, Table ES.1 (summarized in Table 2), provides the results of New Jersey's analyses of attainment of the ozone standard. The submittal summarizes New Jersey's attainment demonstration in these words: "Table ES.1 presents the results for the two controlling monitors in the multi-state nonattainment areas associated with New Jersey. The results indicated that it is plausible for both areas to reach attainment by June 15, 2010." EPA draws attention to this statement since New Jersey's technical analysis does not assert that attainment is likely or that attainment is certain within some set of parameters.

TABLE 2—2009 OZONE DESIGN VALUES PREDICTED IN THE NEW JERSEY SIP

Site name, county and state	Photochemical grid modeling result	Alternative baseline and maximum reduction (approach 1)	Adjusted for transport (approach 2)	Effect of emissions quantified but not modeled <sup>1</sup>	Estimated effect of emissions not quantified <sup>2</sup>
Stratford, Fairfield Co., CT <sup>3</sup> .....	90 ppb .....	83 ppb .....	85 ppb .....	–0.2 to –2 ppb ...	–1 to –3 ppb.
Colliers Mills, Ocean Co., NJ <sup>4</sup> .....	92 ppb .....	86 ppb .....	85 ppb .....	–0.3 to –4 ppb ...	–1 to –3 ppb.

**Note:** Attainment of the ozone standard is 84 ppb or less.

<sup>2</sup> This action refers to the modeling predicting ozone in 2009 as a surrogate for attaining with the three-year design value, and is not a literal prediction for the 2009 ozone season. Since the

attainment date is June 2010 for New Jersey's areas, these areas must achieve emission reductions by the beginning of the ozone season of 2009 in order for ozone concentrations to be reduced, and meet the

level of the standard, during the last complete ozone season before the 2010 deadline. (See 40 CFR 51.908(d).)

<sup>1</sup> From New Jersey SIP submittal, Table 5.11 and Section 5.4.4.4.

<sup>2</sup> From New Jersey SIP submittal, Section 5.4.5.

<sup>3</sup> New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area.

<sup>4</sup> Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD nonattainment area.

In the case of the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas, represented in Table 2 by the Colliers Mills and Stratford monitoring sites, respectively, New Jersey notes that attainment is “plausible” if the modeled results are adjusted and if New Jersey accounts for the effects of implementing additional measures not considered in the photochemical modeling. While New Jersey’s SIP submittal states it expects to implement these additional measures, New Jersey notes that they are not part of New Jersey’s attainment demonstration SIP.

As noted previously, the second approach to adjusting the photochemical modeling predictions, which relies on adjustments to the base line data and amount of reduction predicted by the modeling, predicts 2009 concentrations to be less than the 85 ppb ozone standard only in the New York-Northern New Jersey-Long Island, NY-NJ-CT New York City ozone nonattainment area. See the results for the Stratford, CT receptor in Table 2. For the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD area, neither approach to adjusting the photochemical modeling demonstrates attainment. See the results for the Colliers Mills, NJ receptor in Table 2. New Jersey relies on additional emission control measures to argue that the NAAQS will be attained in 2009 in both of its nonattainment areas. New Jersey estimates these additional measures could reduce concentrations by anywhere from 1 ppb to 5 ppb at Colliers Mills and from less than 1 ppb to 2 ppb at Stratford. EPA’s evaluation of these additional measures is discussed later in this action.

New Jersey’s attainment demonstration relies on all of the following to demonstrate attainment by 2009 in both of its nonattainment areas:

(1) New Jersey uses an alternative to the modeling guidance method that provides a 2002 starting point closer to attainment and a larger ozone reduction than the modeling average,

(2) New Jersey includes specified attainment measures which are not yet implemented, but committed to in its SIP submittal, and

(3) New Jersey relies on the benefits from additional measures without specifically including them in the attainment demonstration.

Even if these adjustments and assumptions are acceptable, the additional measures not included in the modeling show attainment only with the upper limit of the estimated benefits.

The next step is to evaluate each of these assumptions in New Jersey’s SIP submittal to determine if they help demonstrate that attainment by 2009 is likely.

Table 2 includes the 2009 predicted ozone concentrations from the photochemical grid modeling. Applying the methods recommended in EPA’s modeling guideline to the output from the photochemical grid model results in predictions of ozone in 2009 to be 92 ppb for the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and 90 ppb for the New York-Northern New Jersey-Long Island, NY-NJ-CT areas. The modeled concentrations in 2009 are significantly above the 84 ppb concentration used as the benchmark for attaining the ozone air quality standard. As previously noted, EPA does not rule out the use of alternative methods even when the photochemical grid modeling results demonstrate the areas are far from attaining the standard, but EPA’s modeling guidance notes that more qualitative results are less likely to support a conclusion differing from the outcome of the modeled attainment test. The guidance notes that, in most cases, considerable amounts of precursor control (e.g., 20–25 percent or more) would be needed to lower projected ozone design values even by 3 ppb.

#### • New Jersey’s Adjustments to Modeled Results—Overview

New Jersey used several different methods to calculate the ozone for the attainment year, based on 2009’s emissions—methods that differed from EPA’s modeling guidance. In the first approach, New Jersey used alternative methods of calculating the base starting point design value and the amount of reduction predicted by the model. Combined, these two adjustments predict an attainment year ozone concentration of 86 ppb in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD nonattainment area and 83 ppb in the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area, therefore attaining the standard only in the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area.

The second approach used the results of scientific research to adjust the ozone concentration predicted by photochemical grid modeling. This approach predicts attainment year ozone concentrations of 85 ppb in both the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas. Using this approach, attainment is not reached without additional measures in either of New Jersey’s nonattainment areas.

#### • New Jersey’s Adjustments to Modeled Results—First Approach, Part 1

One of New Jersey’s methods for adjusting the modeled results uses alternative ways of calculating the base air quality value for 2002. New Jersey’s SIP submittal uses a straight five-year average of the fourth-highest design value from 2000 to 2004. EPA’s modeling guidance recommends using an average of the three years of design value centered on 2002, which creates a weighted five-year average. While New Jersey’s SIP submittal notes that EPA’s method of providing a weighted average baseline value weights the base year of 2002 more heavily than other years, EPA intended this, so that the resulting value was influenced the most by the ozone data from the base year of the emission inventory. There are other ways of calculating a baseline value that the State did not use. For example, for the peak ozone site of the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD nonattainment area at Colliers Mills:

The EPA guideline method baseline is 105.7 ppb<sup>3</sup>;

the New Jersey alternative baseline is 104 ppb;

the 2002 design value is 112 ppb; and  
the 2003 designation design value, centered on 2002, is 106 ppb.

Various methods could result in 2002’s base year ozone of two ppb lower than the modeling guidance method (New Jersey’s five year average centered on 2002) or as much as 7 ppb higher than the guidance method (single design value from 2002). New Jersey relies on the lower end of the range of possible results, and this brings the modeling result closer to attainment. In addition,

<sup>3</sup> The 2002 base air quality value for the modeling base year is 106 ppb in New Jersey’s SIP submittal. EPA’s guideline method results in a value of 105.7 ppb.

the straight five-year average method used by New Jersey, while centered on 2002, is skewed by giving 2004 as much influence as other years. The ozone data from 2004 includes the effects of reductions made between the base year 2002 and the attainment year of 2009, when major reduction in nitrogen oxides (NO<sub>x</sub>) occurred and are accounted for in the photochemical grid modeling. Specifically, EPA's NO<sub>x</sub> SIP Call and NO<sub>x</sub> Budget Trading Program produced significant reductions before the 2004 ozone season. The summer of 2004 was also a cooler than normal summer, possibly biasing the base value further downward toward attainment. In an unweighted five-year average, 2004 has as much influence on the result as each of the other four years, so it provides a significant bias toward attainment. Selecting only a method that is lower than the recommended method is not a balanced use of the weight of evidence analysis. In this case, there are equally plausible alternatives that produce higher values. EPA does not find New Jersey's selected method of adjusting the base design value to be sufficiently justified and cannot accept it as a supplemental method of demonstrating attainment.

• New Jersey's Adjustments to Modeled Results—First Approach, Part 2

In order to predict an ozone design value for the attainment year, 2009, it is important to know how much ozone will decrease from the base year to the attainment year. The modeling predicts ozone in 2002 and 2009 using each year's emissions and taking the difference between them. EPA's modeling guidance suggests using the average percent change in ozone at grid cells around a monitoring site.

For the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD nonattainment area the percent reduction in ozone between 2002 and 2009 was 9.5 percent at the peak monitor and varied across monitoring sites from 6.1 percent to 12.2 percent. New Jersey's SIP submittal uses the greatest reduction from all of the monitoring sites instead of using the site-specific value for each of the monitoring sites. Using the largest reduction from any site in the entire area may not be any more correct than using the least reduction from any site in the entire area. New Jersey's alternative method is not acceptable in the weight of evidence analysis because other methods can produce equally plausible changes in ozone that result in higher 2009 predicted ozone concentrations than New Jersey's alternative method. EPA does not find

New Jersey's selection of this adjustment sufficiently justified and cannot accept it as a supplemental method of demonstrating attainment.

• New Jersey's Adjustments to Modeled Results—Second Approach—The Sensitivity of the Photochemical Grid Model to Changes in Emissions That Cause Ozone

New Jersey's SIP submittal includes analyses as to whether the photochemical grid model provides for too little ozone reduction for the emissions reductions used in the photochemical grid modeling (particularly long-range transport of ozone and ozone-forming chemical compounds). New Jersey makes the case that, if the model does not properly account for transport, future ozone would be lower than predicted by the photochemical grid model. Therefore, New Jersey proposes adjusting the modeling results downward by 5 ppb to 7 ppb. Thus, New Jersey projects 2009 ozone of 85 ppb in both the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment areas.

New Jersey's analysis relies on other studies that suggest the model underpredicts ozone transported aloft and which, if corrected, would result in lower predictions in the future. For example, New Jersey cites ambient data from sites that are strongly affected by transported ozone to support the proposition that the model may have a slight bias toward overprediction of the 2009 attainment year ozone. Some aircraft vertical soundings from 2002 show that modeled ozone is less than predicted by the model. This is important in the photochemical grid model since ozone is transported aloft from areas with high emissions of ozone-forming compounds—areas where large reductions in emissions are expected due to EPA's NO<sub>x</sub> SIP Call and NO<sub>x</sub> Budget Trading Program. New Jersey is concerned that the change in ozone from these areas may also be underpredicted. However, the same document also notes that ozone formed along the surface from local sources may be underestimated. EPA is concerned that New Jersey's SIP does not adequately allow for the possibility that the model is giving too much credit to these surface layer ozone reductions, which should be accounted for in New Jersey's submittal, if it desires to adjust the modeling results for a possible lack of credit from distant emission sources.

New Jersey's SIP submittal cites research on ozone concentrations during an electrical blackout in the recent past

that suggests the model underpredicts the amount of ozone reduction that actually occurred during the electrical blackout. During the blackout, measured ozone in rural areas west of New Jersey was lower because some power plants and some other major sources of ozone-forming compounds were shut down. A study cited by New Jersey used a photochemical grid model to estimate the effect of the blackout by calculating the change in ozone with and without the sources that were shutdown during the blackout. Another study compared ozone on the blackout day with a past high ozone day with more typical emissions but with similar weather and wind patterns to the blackout day. New Jersey's concern was that the modeled change was less than the change in ozone between the more typical day and the blackout day. New Jersey concludes from this that the model is not responsive enough to reductions in transported emissions. However, no two days are the same and comparing two particular ozone episodes is never exact. The emissions of precursors that produce ozone and the meteorological patterns on the day of and the days preceding the blackout will never occur the same way twice. Another study that EPA finds persuasive shows that the "typical" day had winds coming from areas that were not the ones most affected by the blackout. So, EPA believes the comparison of the typical and blackout days is not convincing because the blackout and typical days have ozone precursors arriving from different areas. Also, these studies cited by New Jersey did not look at the effect of the blackout on air quality in the urban nonattainment areas like those in New Jersey. EPA concludes that while the blackout study provides some information as to the effectiveness of reducing emissions on ozone air quality, the blackout day and the more typical day used for comparison have ozone precursors from different areas and does not demonstrate that the model is not responsive enough to changes in ozone precursor emissions.

After careful review of these studies, EPA has found significant uncertainties in the SIP submittal's technical analysis and therefore does not accept New Jersey's conclusion that the modeling system underpredicts changes in ozone as emissions change. Arguments in New Jersey's SIP submittal that the model may not give full credit for emission reductions are supported by limited modeling work. The states have not tested their hypothesis with their own modeling. There are other studies and ambient data that suggest contradictory

conclusions. EPA believes any additional ozone reductions beyond the photochemical modeling are likely to be far less than the 5 to 7 ppb claimed in the New Jersey SIP submittal. Therefore, EPA concludes that New Jersey's adjustments to the photochemical grid modeling results are not supported by the information provided.

• **New Jersey's Adjustments to Modeled Results—Evidence of Improvement Based on Air Quality Through 2006**

New Jersey points out that measured design values in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and New York-Northern New Jersey-Long Island, NY-NJ-CT areas in 2006 were close to the concentrations predicted by the photochemical grid model for 2009. With the passage of time since New Jersey submitted its SIP revision, EPA can use more recent air quality data to evaluate New Jersey's comparison of the modeled results to actual air quality. These more recent measurements, data from 2007 and preliminary air quality data from 2008, are significantly higher than the ozone standards. For example, when measured air quality data for 2007 are included, the design value remains the same or increases in New Jersey's ozone nonattainment areas. Ozone design values appear to be moving more slowly toward attainment from 2006 to 2008 because the design values in 2006 were biased low by the cooler-than-normal summer of 2004 and more recent design values are more indicative of typical air quality in New Jersey's nonattainment areas.

The observed 2007 design values are well above the values predicted by the photochemical grid modeling (using the EPA guideline methodology). These data contradict the argument that the modeling system is overpredicting ozone in the attainment year. Note that EPA is relying on air quality data only as a supporting argument for EPA's determination, discussed earlier, that New Jersey's nonattainment areas will not attain the ozone standard by the 2009 ozone season. Later in this action, EPA reviews the effect of more recent measured ozone data on the proposition that emission reductions expected in 2008 and 2009 will be enough to reduce ozone to attainment levels by 2009.

• **Accounting for Additional Emission Reduction Measures Not in Modeled Results**

New Jersey's weight of evidence analysis also attempts to quantify some emission reductions not included in the modeling. There are two kinds of additional reductions that were not

included in the photochemical grid modeling: reductions that New Jersey can quantify and other reductions that are harder to quantify. The most effective way to predict changes in ozone is through air quality modeling; however, New Jersey did not perform additional modeling runs including these additional measures. The New Jersey weight of evidence analysis includes an attempt to project the effect of these measures. For the additional emission reductions New Jersey describes as "quantifiable," New Jersey extrapolates data from modeling discussed in its SIP submittal. For the additional emission reductions New Jersey describes as "unquantifiable," New Jersey uses previously modeled sensitivity studies of mobile source controls to estimate the impact of these unquantified emission reductions on air quality. Numerically, for the quantifiable measures, New Jersey uses extrapolation of the photochemical modeling results to predict that additional measures will reduce ozone by 0.3 to 4 ppb in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD area and 0.2 to 2 ppb in the New York-Northern New Jersey-Long Island, NY-NJ-CT area.

New Jersey's SIP submission indicates if the projected impact of these two sets of measures is combined and their peak effects occurred at the peak monitoring location, these additional measures could reduce 2009 ozone by 1 to 7 ppb for the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD area and 1 to 5 ppb for the New York-Northern New Jersey-Long Island, NY-NJ-CT area. The photochemical grid modeling predicted modeled air quality for 2009 to be above the standard by 8 ppb in Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD and above the standard by 6 ppb in New York-Northern New Jersey-Long Island, NY-NJ-CT. Even assuming these additional measures produced the largest amount of benefits estimated by New Jersey (which we believe would not be the appropriate level to consider) New Jersey's nonattainment areas are predicted not to attain the standard.

For measures New Jersey classifies as "non-quantifiable," its SIP submittal notes that when the State of Maryland modeled reduced auto emissions from decreased auto use due to telecommute programs, reductions similar to those measures proposed by New Jersey as unquantifiable, modeled ozone decreased by 1 to 3 ppb. EPA notes that Maryland modeled a forty percent reduction in mobile source emissions for the State's telecommute strategy. Maryland modeled the emission

reductions that would occur if forty percent of all drivers decided not to drive to work on high ozone days; the model predicted ozone would be reduced by 1 to 3 ppb.

The additional strategies proposed by New Jersey, both the quantifiable and the unquantifiable are not large enough to reduce emissions by the equivalent of a forty percent reduction in motor vehicle use. Consequently, there is no supporting information that New Jersey's additional measures will reduce ozone by more than a few parts per billion (and more likely, less), and certainly not by the 5 ppb to 7 ppb suggested by adding together the upper end of the estimates provided in New Jersey's SIP submittal.

New Jersey's attainment demonstration predicts attainment only if EPA accepts the upper range of these emission reductions not included in the modeling, plus adjustments to the model results. EPA does not find sufficient support for either of these alternative analyses.

While New Jersey has committed to adopt these additional measures (see page 5–47 of the New Jersey SIP submittal, Table 5.11 "Additional Quantifiable Measures Not Included in the 2009 BOTW Modeling), New Jersey has specifically not included these measures as part of its attainment demonstration. Additionally, some of these measures are being used to meet the contingency requirement should a nonattainment area not attain by its attainment date. The State cannot rely on the measures both for purposes of its attainment demonstration and for contingency measures as contingency measures must be measures in addition to those relied on to demonstrate attainment. Furthermore, in order for a control measure's benefit to be creditable towards attainment, the measures must be enforceable by the state and EPA and included in the federally enforceable SIP. EPA allows for a limited exception for voluntary measures, but New Jersey's additional measures, even if they were included as part of New Jersey's attainment demonstration, exceed the level of reductions that EPA would consider for voluntary measures. Therefore, these measures cannot be relied upon to make-up the difference between the modeling projection and attainment.

• **EPA's Analysis of the Impact of the Most Recent Air Quality Data on Assertions of Attainment by 2009**

New Jersey did not have the 2007 air quality data when it submitted its ozone attainment SIP revision. The 2006 design value (based on 2004–2006 data)



included air quality data from the cool summer of 2004 that had sharply lower levels of ozone. Ozone data from 2007 appears to be more in line with recent ozone seasons and not like the lower ozone concentrations recorded during the cooler summer of 2004. While ozone concentrations have decreased substantially since 2002 even when the 2004 data are excluded, the use of data including the summer of 2004 leads to an overly optimistic assessment of the 2004 to 2006 ozone concentrations used in New Jersey's evaluation of the trend toward attainment.

EPA is concerned that the additional measures included in New Jersey's SIP submittal (but not relied on as part of the attainment demonstration by New Jersey) and other measures implemented between now and the 2009 ozone season will not be enough to reduce ozone from its 2007 levels of 93 ppb in both of New Jersey's nonattainment areas to the 84 ppb ozone standard in 2009. Ozone levels have decreased in the past five years, but would need to decrease another fifty percent or more over the 2007 and 2008 ozone seasons to reach attainment in 2009.

EPA estimates that the programs New Jersey says it will implement between 2007 and 2009 could reduce emissions by an additional 7 to 10 percent of nitrogen oxides and 6 to 7 percent of volatile organic compound emissions. This is less than half of the reductions that occurred between 2002 and 2007. Also, improvements in ozone air quality in the past five years were also assisted by reduced regional emissions from EPA's NO<sub>x</sub> SIP Call and NO<sub>x</sub> Budget Trading Program as well as local emission reductions in the northeast corridor. These measures produced a significant decrease in ozone. However, the reductions from the NO<sub>x</sub> SIP Call and NO<sub>x</sub> Budget Trading Program are completed, so further reductions in transported ozone are likely to be minimal. This is confirmed by data in EPA's 2007 Air Quality Trends Report, which shows little decrease in regional reductions. Thus, it is not likely that ozone will continue to decrease at the rate observed from 2002 to 2007 unless local emission reductions are expanded to amounts well beyond those in the present federally enforceable SIP.

The preliminary data from the 2008 ozone season<sup>4</sup> decreases EPA's

confidence that New Jersey's nonattainment areas will be able to attain the ozone standard by 2009. Including 2008's preliminary data, the design values become 92 ppb in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD area and 89 ppb in the New York-Northern New Jersey-Long Island, NY-NJ-CT area. EPA is not encouraged that the additional measures being implemented by the states will bring ozone air quality to attainment by 2009.

Sections 172(a)(2)(C) and 181(a)(5) of the Act provide for the opportunity of up to two one-year extensions of the attainment date of 2010. EPA can grant an extension if all of the monitors in a nonattainment area have a 4th highest daily 8-hour average in 2009 of 84 ppb or less and the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan. The historical ozone monitoring trends for New Jersey's ozone nonattainment areas, supplemented with the preliminary fourth-highest concentrations in 2008, support the view that the area is unlikely to attain the ozone standard or even to have all monitors record a 4th-highest 8-hour ozone of 84 ppb or less in 2009.

In summary, recent ambient data also do not support the State's contention that the model is underpredicting ozone for 2009, because if this was the case, these areas would be closer to attainment based on 2007 and 2008 data. Additionally, there does not appear to be enough evidence that additional emissions reductions over the next year will achieve attainment or be sufficient to meet the air quality requirement for an attainment date extension.

Even including the preliminary data for 2008, air quality for the past few years does not show lower ozone concentrations consistent with attainment by the 2009 ozone season. These air quality data are similar to the photochemical grid modeling results obtained by following the methods in EPA's guidance, showing that adjustments to the modeling results are not needed. It is unlikely that New Jersey's nonattainment areas will attain the ozone standard by the attainment date.

#### c. Summary of Weight of Evidence Discussion

With New Jersey's photochemical grid modeling results predicting a 2009

projected design value well above the air quality health standard for New Jersey's nonattainment areas, the State has a heavy burden to provide a demonstration that these areas will attain the ozone standard by the attainment date. New Jersey needed to supply a substantial amount of evidence that the model is seriously overestimating future ozone concentrations. Modeling and air quality studies do not support an argument that the model overpredicts concentrations in 2009. Reductions anticipated to take effect between now and the beginning of the 2009 ozone season are also not enough to close this gap. New Jersey has suggested that it can adopt additional emission reduction strategies which will reduce ozone, but these reductions are not yet in place or are voluntary and mostly unquantifiable emission control plans. They are not likely to reduce ozone enough to reach the standard by 2009, even if they are implemented. EPA also cannot give much credence to additional measures that New Jersey says it will implement, but will not officially include as part of its attainment demonstration.

Ozone air quality concentrations through 2007 are far above the level needed for attainment and it is unlikely that New Jersey and the other states impacting these two nonattainment areas will be able to implement enough additional emission controls to reach the standard by 2009. This is supported by the lack of improvement shown in the preliminary air quality data from 2008. Also, the present air quality data does not support the hypothesis that the models are incorrect. If New Jersey's hypothesis was correct, present air quality concentrations would be closer to the standard if New Jersey's nonattainment areas were going to reach attainment in the upcoming 2009 ozone season, when attainment is due.

The information and calculations provided by New Jersey's SIP emphasizes methods or data that support their claims that the nonattainment areas could attain the standard by the deadline. EPA's review of the "weight of evidence" analyses must evaluate a spectrum of likely alternative calculations, not only those that tend to show the area will attain the ozone standard. As noted before, the method recommended by EPA's guidance and other reasonable variations on EPA's methods predict the area will not attain the ozone standard by 2009. New Jersey has provided considerable information in support of its "weight of evidence." EPA has determined this information does not demonstrate that the proposed

<sup>4</sup> Region 2 is using the preliminary data from the Air Quality System or in some circumstances from the EPA-State real-time data reporting system. These data have not completed the states' quality assurance review. Certified 2008 ozone data were not available from the states at the time of this notice. EPA anticipates that the final data are not likely to change by more than one or two ppb from

the preliminary data used in EPA's assessment. Changes of this amount would not change EPA's conclusions.



adjustments to the photochemical grid model's attainment year forecast will give a more accurate answer than the calculations based on EPA's recommendations in its modeling guidance.

### 3. What Is EPA's Evaluation?

The result of the photochemical grid modeling analysis using EPA's recommended methods predicts that New Jersey's nonattainment areas will not attain the standard by the attainment year of 2009. In response to this, New Jersey has offered a number of alternative methods for using the modeling information and additional control strategies that when taken together might plausibly demonstrate attainment.

EPA has carefully evaluated the information provided by New Jersey and other information it deems relevant to help predict whether ozone air quality is likely to be in attainment of the ozone standard after control measures are in place by the 2009 ozone season. Taking all this information together, EPA finds the argument that attainment is likely in 2009 is unconvincing, and EPA does not find the possibility that attainment is plausible enough to satisfy the Clean Air Act requirement that State Implementation Plans provide for attainment of the NAAQS by the applicable attainment date.

In general, EPA's conclusions can be summarized as follows:

- New Jersey's modeling, using an appropriate photochemical grid model and EPA's guidance methods, does not predict attainment in 2009.
- New Jersey's attainment demonstration greatly relied on adjustments to the baseline assumptions which formed the basis of the photochemical modeling analysis. These adjustments to the base year starting value and the amount of reduction in ozone from 2002 to 2009 differ from EPA's modeling guidance and, more importantly, are not sufficiently justified, and are biased toward a conclusion that New Jersey's nonattainment areas will attain the standard.
- New Jersey's attainment demonstration greatly relied on research which evaluated the impact of a widespread power blackout to develop an alternative approach to estimating anticipated air quality improvements from upwind power plants. While EPA believes that this approach provides some insight into the transport of ozone precursors, a critical review of all the research available to EPA and New Jersey leads EPA to disagree with the premise that the air quality modeling

results should be adjusted using New Jersey's alternative approaches.

- New Jersey's attainment demonstration relies, in part, on emission reductions resulting from a commitment to adopt and implement a number of regulations prior to the start of the 2009 ozone season. Some of these were included in the photochemical grid modeling. These regulations would provide for additional reductions from boilers, refineries, power generation, consumer products and portable fuel containers. New Jersey's SIP submittal contains a schedule to adopt these regulations by May of 2008. While New Jersey has recently adopted two rule packages, the third has yet to be proposed. EPA must discount the effects of these relied-upon emission reductions since these emission reductions may not be achieved by the start of the 2009 ozone season.

- In order to insure attainment, New Jersey refers to additional measures that were not included in the original photochemical modeling analysis. New Jersey, however, has specifically not included these measures as part of its attainment demonstration. In order for a control measure's benefit to be creditable towards attainment, the measures must be enforceable by the State and be included in the federally enforceable SIP. As such, these additional measures cannot be relied upon to make-up the difference between what the modeling projects and what is needed for attainment.

- Some of New Jersey's additional measures can be quantified, others cannot. While EPA encourages New Jersey to continue to promote these worthwhile and important emission reduction programs, the amount of tangible air quality benefit is difficult to estimate with any degree of certainty. Even if these measures were adopted and implemented, the emissions reductions are not sufficient to meet the ozone standard in 2009 even by selecting the most favorable assumptions of the benefits associated with these control measures.

- New Jersey used measured ozone through 2006 to support its conclusion that the photochemical grid modeling was likely to be incorrect in its prediction that New Jersey's nonattainment areas would be far from attainment by 2009. However, when comparing more recent data from 2007 and preliminary data from 2008 with the results of the photochemical grid modeling using EPA's method, the photochemical grid model does not exhibit the magnitude of inaccuracies suggested in New Jersey's attainment demonstration.

- Regardless of the issues raised by New Jersey regarding the performance of EPA's recommended air quality models, the air quality measured during 2007 exceeded the ozone standard by a significant margin. Even a linear comparison of the percentage of additional emission reductions planned by the State with the needed improvement in air quality between 2007 and 2009 indicates it is unlikely that air quality will improve enough to meet the ozone standard by 2009. Preliminary air quality data from 2008 is sufficiently similar to 2007 air quality data to indicate that attainment by 2009 is now even less likely.

- New Jersey, along with the other states sharing its nonattainment areas, did not take sufficient steps as required by the section 182(j) of the Act to coordinate with each other on the implementation of SIP submittals applicable to the nonattainment areas. The SIPs submitted by each of the states which share New Jersey's nonattainment areas differ significantly in their level of emission controls, and, to a lesser extent, modeling demonstrations. In particular, for the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area, the three states did not agree on the basic issue of whether they will attain the ozone standard by the attainment date.

For these reasons, EPA proposes to disapprove the attainment demonstration portion of New Jersey's SIP submittal. The photochemical grid modeling, performed according to EPA's guidelines, predicts New Jersey's nonattainment areas will fall short of attaining the ozone standard by a substantial margin. New Jersey provides extensive information to argue that attainment is plausible if the modeled results are adjusted and if additional measures (not included in the modeling or the attainment demonstration) will be in place and are effective. New Jersey's demonstration does not provide the level of compelling evidence needed for EPA to have confidence that New Jersey's nonattainment areas will actually attain the NAAQS by the June 2010 deadline.

### V. What Are the Consequences of a Disapproved SIP?

This section explains the consequences of a disapproval of a SIP submittal under the Act. The Act provides for the imposition of sanctions and the promulgation of a federal implementation plan (FIP) if a state fails to submit a plan revision that corrects the deficiencies identified by EPA in its disapproval.

### *A. What Are the Act's Provisions for Sanctions?*

If EPA disapproves a required SIP or component of a SIP, such as the Attainment Demonstration SIP, section 179(a) provides for the imposition of sanctions unless the deficiency is corrected within 18 months of the final rulemaking of disapproval. The first sanction would apply 18 months after EPA disapproves the SIP if a state fails to make the required submittal which EPA proposes to fully or conditionally approve within that time. Under EPA's sanctions regulations, 40 CFR 52.31, the first sanction would be 2:1 offsets for sources subject to the new source review requirements under section 173 of the Act. If a state has still failed to submit a SIP revision for which EPA proposes full or conditional approval 6 months after the first sanction is imposed, the second sanction will apply. The second sanction is a limitation on the receipt of Federal highway funds. EPA also has authority under section 110(m) to sanction a broader area, but is not proposing to take such action in today's rulemaking.

### *B. What Federal Implementation Plan Provisions Apply if a State Fails To Submit an Approvable Plan?*

In addition to sanctions, if EPA finds that a state failed to submit the required SIP revision or disapproves the required SIP revision, or a portion thereof, EPA must promulgate a FIP no later than 2 years from the date of the finding if the deficiency has not been corrected within that time period.

### *C. What Are the Ramifications Regarding Conformity?*

One consequence of EPA's disapproval of a control strategy SIP is a conformity freeze whereby affected MPOs cannot make new conformity determinations on long range transportation plans and transportation improvement programs (TIPs). If we finalize the disapproval of the attainment demonstration SIP, a conformity freeze will be in place as of the effective date of the disapproval without a protective finding of the budget. (40 CFR 93.120(a)(2)) This means that no transportation plan, TIP, or project not in the first four years of the currently conforming transportation plan and TIP or that meet the requirements of 40 CFR 93.104(f) during a 12-month lapse grace period<sup>5</sup> may be found to conform until another

attainment demonstration SIP is submitted and the motor vehicle emissions budgets are found adequate or the attainment demonstration is approved. In addition, if the highway funding sanction is implemented, the conformity status of the transportation plan and TIP will lapse on the date of implementation of the highway sanctions. During a conformity lapse, only projects that are exempt from transportation conformity (e.g., road resurfacing, safety projects, reconstruction of bridges without adding travel lanes, bicycle and pedestrian facilities, etc.), transportation control measures that are in the approved SIP and project phases that were approved prior to the start of the lapse can proceed during the lapse. No new project-level approvals or conformity determinations can be made and no new transportation plan or TIP may be found to conform until another attainment demonstration SIP is submitted and the motor vehicle emissions budget is found adequate.

### **VI. What Are EPA's Conclusions?**

EPA is proposing to disapprove New Jersey's attainment demonstrations for the New York-Northern New Jersey-Long Island, NY-NJ-CT and the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE 8-hour ozone moderate nonattainment areas because New Jersey's demonstration does not provide the level of compelling evidence for EPA to have confidence that New Jersey's nonattainment areas will attain the NAAQS by the June 2010 deadline.

### **VII. Statutory and Executive Order Reviews**

#### *A. Executive Order 12866, Regulatory Planning and Review*

This action is not a "significant regulatory action" under the terms of Executive Order (EO) 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under the EO.

#### *B. Paperwork Reduction Act*

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq., because this proposed SIP disapproval under section 110 and subchapter I, part D of the Clean Air Act will not in-and-of itself create any new information collection burdens but simply disapproves certain State requirements for inclusion into the SIP. Burden is defined at 5 CFR 1320.3(b).

#### *C. Regulatory Flexibility Act*

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct

a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant impact on a substantial number of small entities. This rule does not impose any requirements or create impacts on small entities. This proposed SIP disapproval under section 110 and subchapter I, part D of the Clean Air Act will not in-and-of itself create any new requirements but simply disapproves certain State requirements for inclusion into the SIP. Accordingly, it affords no opportunity for EPA to fashion for small entities less burdensome compliance or reporting requirements or timetables or exemptions from all or part of the rule. The fact that the Clean Air Act prescribes that various consequences (e.g., higher offset requirements) may or will flow from this disapproval does not mean that EPA either can or must conduct a regulatory flexibility analysis for this action. Therefore, this action will not have a significant economic impact on a substantial number of small entities.

We continue to be interested in the potential impacts of this proposed rule on small entities and welcome comments on issues related to such impacts.

#### *D. Unfunded Mandates Reform Act*

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538 for State, local, or tribal governments or the private sector. EPA has determined that the proposed disapproval action does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal

<sup>5</sup> Additional information on the implementation of the lapse grace period can be found in the final transportation conformity rule published on January 24, 2008. (73 FR 4423–4425)

governments in the aggregate, or to the private sector. This action proposes to disapprove pre-existing requirements under State or local law, and imposes no new requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

#### *E. Executive Order 13132, Federalism*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely disapproves certain State requirements for inclusion into the SIP and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, Executive Order 13132 does not apply to this action.

#### *F. Executive Order 13175, Coordination With Indian Tribal Governments*

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP EPA is proposing to disapprove would not apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

#### *G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks*

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it is not an economically significant regulatory

action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997). This proposed SIP disapproval under section 110 and subchapter I, part D of the Clean Air Act will not in-and-of itself create any new regulations but simply disapproves certain State requirements for inclusion into the SIP.

#### *H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use*

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

#### *I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

The EPA believes that VCS this action is not subject to requirements of Section 12(d) of NTTAA because application of those requirements would be inconsistent with the Clean Air Act.

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

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

EPA lacks the discretionary authority to address environmental justice in this proposed action. In reviewing SIP submissions, EPA's role is to approve or disapprove state choices, based on the

criteria of the Clean Air Act. Accordingly, this action merely proposes to disapprove certain State requirements for inclusion into the SIP under section 110 and subchapter I, part D of the Clean Air Act and will not in-and-of itself create any new requirements. Accordingly, it does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898.

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: April 28, 2009.

**George Pavlou,**

*Acting Regional Administrator, Region 2.*

[FR Doc. E9-10663 Filed 5-7-09; 8:45 am]

**BILLING CODE 6560-50-P**

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

[EPA-R03-OAR-2008-0929; FRL-8901-5]

### **Approval and Promulgation of Air Quality Implementation Plans; Maryland; Attainment Demonstration for the Philadelphia-Wilmington-Atlantic City Moderate 8-Hour Ozone Nonattainment Area**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** EPA is proposing to disapprove the ozone attainment demonstration portion of a comprehensive State Implementation Plan (SIP) revision submitted by the State of Maryland to meet Clean Air Act (CAA) requirements for attaining the 8-hour ozone national ambient air quality standard (NAAQS) for Cecil County, which is the Maryland portion of the Philadelphia-Wilmington-Atlantic City moderate nonattainment area (Philadelphia Area). EPA is proposing to disapprove Maryland's attainment demonstration of the 8-hour ozone NAAQS for the Philadelphia Area because EPA has determined that the photochemical modeling does not demonstrate attainment, and the weight of evidence (WOE) analysis that Maryland uses to support the attainment demonstration does not provide the