

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Parts 51 and 96**

[OAR-2003-0053; FRL-7885-8]

RIN 2060-AM95

**Inclusion of Delaware and New Jersey in the Clean Air Interstate Rule****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule.

**SUMMARY:** In this action, we are proposing to include Delaware and New Jersey in the Clean Air Interstate Rule (CAIR) for fine particles (PM<sub>2.5</sub>), based on a preliminary assessment that they contribute significantly to a downwind State's nonattainment. In the CAIR, we determined that upwind States that contribute 0.2 µg/m<sup>3</sup> or more to a downwind fine particles (PM<sub>2.5</sub>) nonattainment area are potentially deemed to be contributing significantly to nonattainment. We are proposing here to combine Delaware and New Jersey for purposes of this test. We have tentatively determined that Delaware and New Jersey should be covered by the CAIR for annual sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) requirements.

In this proposal, we are not reopening any of the technical aspects of the CAIR final analyses. Rather, we are proposing to augment the analytical approach used in the CAIR by supplementing the air quality step of the contribution analysis.

For a more detailed discussion of the purpose, background, and analytical approach of the CAIR, and for the detailed provisions of the CAIR, see the CAIR final rule which is published in today's **Federal Register**.

**DATES:** Comments must be received on or before June 27, 2005. A public hearing, if requested, will be held in Washington, DC on May 26, 2005, beginning at 9 a.m.

**ADDRESSES:** Submit your comments, identified by Docket ID No. OAR-2003-0053, by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- Agency Website: <http://www.epa.gov/edocket>. EDOCKET, EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Follow the on-line instructions for submitting comments.
- E-mail: [A-and-R-Docket@epa.gov](mailto:A-and-R-Docket@epa.gov).
- Fax: (202) 566-1741.
- Mail: Air Docket, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW.,

Washington, DC 20460. Please include a total of two copies.

- Hand Delivery: EPA Docket Center (Air Docket), U.S. Environmental Protection Agency, 1301 Constitution Avenue, NW., Room B102, Washington, DC 20004. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

**Instructions:** Direct your comments to Docket ID No. OAR-2003-0053. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.epa.gov/edocket>, 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 EDOCKET, [regulations.gov](http://www.regulations.gov), or e-mail. The EPA EDOCKET and the Federal [regulations.gov](http://www.regulations.gov) Web sites are "anonymous access" systems, 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 EDOCKET or [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, any form of encryption, and be free of any defects or viruses.

**Docket:** All documents in the docket are listed in the EDOCKET index at <http://www.epa.gov/edocket>. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the Air Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public

Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. This Docket Facility is open from 8 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is (929) 566-1742, fax (202) 566-1741.

**FOR FURTHER INFORMATION CONTACT:**

General questions concerning today's action should be addressed to Jan King, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, Mail Code C539-02, Research Triangle Park, NC 27711, telephone (919) 541-5665, e-mail [king.jan@epa.gov](mailto:king.jan@epa.gov). For legal questions, please contact Steven Silverman, U.S. EPA, Office of General Counsel, Mail Code 2344A, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 564-5523, e-mail at [silverman.steven@epa.gov](mailto:silverman.steven@epa.gov). For questions regarding air quality analyses, please contact Norm Possiel, U.S. EPA, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, Mail Code D243-01, Research Triangle Park, NC 27711, telephone (919) 541-5692, e-mail at [possiel.norm@epa.gov](mailto:possiel.norm@epa.gov). For questions regarding the EGU cost analyses, emissions inventories, and budgets, please contact John Robbins, U.S. EPA, Office of Atmospheric Programs, Clean Air Markets Division, Mail Code 6204J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 343-9390, e-mail at [robbins.john@epa.gov](mailto:robbins.john@epa.gov). For questions regarding statewide emissions inventories, please contact Marc Houyoux, U.S. EPA, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, Mail Code D205-01, Research Triangle Park, NC 27711, telephone (919) 541-3649, e-mail at [houyoux.marc@epa.gov](mailto:houyoux.marc@epa.gov). For questions regarding emissions reporting requirements, please contact Bill Kuykendal, U.S. EPA, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, Mail Code D205-01, Research Triangle Park, NC, 27711, telephone (919) 541-5372, e-mail at [kuykendal.bill@epa.gov](mailto:kuykendal.bill@epa.gov). For questions regarding the model cap and trade programs, please contact Sam Waltzer, U.S. EPA, Office of Atmospheric Programs, Clean Air Markets Division, Mail Code 6204J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 343-9175, e-mail at

waltzer.sam@epa.gov. For questions regarding analyses required by statutes and executive orders, please contact Linda Chappell, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, Mail Code C339-01, Research Triangle Park, NC 27711, telephone (919) 541-2864, e-mail at [chappell.linda@epa.gov](mailto:chappell.linda@epa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Public Hearing

A public hearing, if requested, will be held in Washington, DC on May 26, 2005 beginning at 9 a.m. If you wish to request a hearing and present testimony or attend the hearing, you should notify, on or before May 19, 2005, Jan King, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, Mail Code C539-02, Research Triangle Park, NC 27711, telephone (919) 541-5665, e-mail [king.jan@epa.gov](mailto:king.jan@epa.gov). Oral testimony will be limited to 5 minutes each. The hearing will be strictly limited to the subject matter of the proposal, the scope of which is discussed below. Any member of the public may file a written statement by the close of the comment period. Written statements (duplicate copies preferred) should be submitted to Docket OAR-2003-0053, at the address listed above for submitted comments. The hearing location and schedule, including lists of speakers, will be posted on EPA's webpage at <http://www.epa.gov/cleanairinterstaterule>. A verbatim transcript of the hearing and written statements will be made available for copying during normal working hours at the Office of Air and Radiation Docket and Information Center at the address listed for inspection for documents.

If no requests for a public hearing are received by close of business on May 19, 2005, the hearing will be cancelled. The cancellation will be announced on the webpage at the address shown above.

##### Outline

- I. Background
  - A. Summary of the Clean Air Interstate Rule
  - B. What Are the Central Requirements of Today's Proposal?
- II. Summary of EPA's Analytical Approach, Findings, and Final Actions in the Interstate Air Quality Rule
  - A. How Did EPA Interpret the CAA's Pollution Transport Provisions?
  - B. Which Air Pollutants Did EPA Address In the CAIR and Why?
  - C. Air Quality Analysis of Ozone and PM<sub>2.5</sub> Contributions Among States
  - D. Analysis of Highly Cost-Effective Controls and Timeframe For Emissions Reductions

- III. Proposed Inclusion of Delaware and New Jersey in the Clean Air Interstate Rule
  - A. Why is EPA Reconsidering the Status of Delaware and New Jersey in the CAIR?
  - B. Air Quality Modeling Results
- IV. Proposed Findings and Action
  - A. Proposed Findings of Significant Contribution for Delaware and New Jersey
  - B. SIP Approval Criteria
  - C. SIP Submittal Deadline
  - D. Emissions Reporting Requirements
- V. Expected Effects of the Proposed Action
  - A. Emissions
  - B. Air Quality
- VI. Statutory and Executive Order Reviews
  - A. Executive Order 12866: Regulatory Planning and Review
  - B. Paperwork Reduction Act
  - C. Regulatory Flexibility Act
  - D. Unfunded Mandates Reform Act
  - E. Executive Order 13132: Federalism
  - F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
  - G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
  - H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use
  - I. National Technology Transfer Advancement Act
  - J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

#### I. Background

##### A. Summary of the Clean Air Interstate Rule

In a final rule published in today's **Federal Register**, titled the Clean Air Interstate Rule ("CAIR"), EPA found that certain States must reduce emissions of SO<sub>2</sub> and/or NO<sub>x</sub> by certain amounts because those emissions contribute significantly to nonattainment in downwind areas in other States that are not meeting the annual PM<sub>2.5</sub> national ambient air quality standard (NAAQS), or the 8-hour ozone NAAQS.<sup>1</sup> The CAIR establishes State implementation plan (SIP) requirements for the affected upwind States under Clean Air Act (CAA) section 110(a)(2). The CAA section 110(a)(2)(D) requires SIPs to contain adequate provisions prohibiting air pollutant emissions from sources or activities in those States that contribute

<sup>1</sup> "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Interstate Air Quality Rule); Proposed Rule," (69 FR 4566, January 30, 2004) (NPR or January Proposal); "Supplemental Proposal for the Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Proposed Rule" (69 FR 32684, June 10, 2004) (SNPR or Supplemental Proposal). We summarize major features of that rule here as an aid to the reader. The EPA is not reconsidering any aspect of the CAIR rule and not accepting comment in this proceeding on the promulgated CAIR rule.

significantly to nonattainment in, or interfere with maintenance by, any other State with respect to a NAAQS. Based on air quality modeling analyses and cost analyses, EPA has concluded in the CAIR that SO<sub>2</sub> and NO<sub>x</sub> emissions in certain States in the eastern half of the nation, through the phenomenon of air pollution transport,<sup>2</sup> contribute significantly to nonattainment or interfere with maintenance of the PM<sub>2.5</sub> and 8-hour ozone NAAQS in another State.<sup>3</sup> This is because NO<sub>x</sub> and SO<sub>2</sub> are important precursors of PM<sub>2.5</sub>, and NO<sub>x</sub> is an important precursor of ozone. As a result of the CAIR, EPA is requiring SIP revisions in 28 States and the District of Columbia to reduce SO<sub>2</sub> and/or NO<sub>x</sub> emissions.

The 23 States along with the District of Columbia that must reduce annual SO<sub>2</sub> and NO<sub>x</sub> emissions for the purposes of the PM<sub>2.5</sub> NAAQS are: Alabama, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin. While we had originally proposed including Delaware and New Jersey in this group based on our initial air quality contribution assessment, subsequent refinement of the emissions estimates and air quality modeling system resulted in their estimated contributions to PM<sub>2.5</sub> nonattainment being below the final CAIR threshold for inclusion in the PM<sub>2.5</sub>-related requirements.

The 25 States along with the District of Columbia that must reduce NO<sub>x</sub> emissions for the purposes of the 8-hour ozone NAAQS are: Alabama, Arkansas, Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin.

Under CAA section 110 and thus under the CAIR, each State may determine independently which sources to subject to controls, and which control measures to adopt. Our analysis indicated that emissions reductions from electric generating units (EGUs) are

<sup>2</sup> In today's final rule, when we use the term "transport" we mean to include the transport of both fine particles (PM<sub>2.5</sub>) and their precursor emissions and/or transport of both ozone and its precursor emissions.

<sup>3</sup> We also found that emissions of SO<sub>2</sub> and NO<sub>x</sub> from upwind States in the PM<sub>2.5</sub> and ozone CAIR regions can interfere with these same downwind receptors' maintenance of each NAAQS.

highly cost effective, and, in the CAIR rule, we encouraged States to adopt these controls. States that do so must place an enforceable limit, or cap, on EGU emissions (see section VII of the CAIR for further discussion). We calculated the amount of each State's EGU emissions cap, or budget, based on reductions that we have determined are highly cost-effective. States may allow their EGUs to participate in an EPA-administered cap and trade program as a way to reduce the cost of compliance, and to provide compliance flexibility. The cap and trade programs are described in more detail in section VIII of the CAIR.

#### *B. What Are the Central Requirements of Today's Proposal?*

In today's action, we propose to combine Delaware and New Jersey for purposes of assessing whether that combination is contributing significantly to nonattainment of the PM<sub>2.5</sub> NAAQS by downwind receptors under section 110(a)(2)(D), and to apply the finding from that combined assessment to each State. Based on presently available air quality modeling results, our tentative assessment is that the combination of the two states does contribute significantly to PM<sub>2.5</sub> nonattainment in New York County, NY, and possibly to one or more counties in eastern Pennsylvania. Accordingly, we are proposing that Delaware and New Jersey be required under CAA section 110(a)(2)(D) to adopt SIP requirements for addressing annual emissions of the PM<sub>2.5</sub> precursors NO<sub>x</sub> and SO<sub>2</sub>. We intend to conduct confirmatory air quality modeling and make the results available through a Notice of Data Availability prior to finalization of this proposal.

Delaware and New Jersey are already subject to the CAIR for purposes of ozone, and must reduce ozone season emissions of NO<sub>x</sub> starting in 2009. This proposal would add requirements for control of annual emissions of SO<sub>2</sub> and of NO<sub>x</sub>.

We propose to require that SIPs to achieve the required PM<sub>2.5</sub> emissions reductions be submitted as soon as practicable, but no later than 18 months after the date of signature of the CAIR, *i.e.*, September 11, 2006, the same deadline as in the CAIR rule. We are doing so because we anticipate being able to act quickly on this proposal, and because we believe this is a reasonable amount of time for submission of these States' SIPs. We also believe that there are evident efficiencies in having these reductions occur at the same time as the reductions from other states covered by

the CAIR rule for NO<sub>x</sub> and SO<sub>2</sub>. See also section IV.D below.

As an option for Delaware and New Jersey, should EPA finalize this proposal, we also propose to provide model cap and trade programs for EGUs. We would also administer these programs, which would be governed by rules provided by EPA that Delaware and New Jersey may adopt or incorporate by reference.

## **II. Summary of EPA's Analytical Approach, Findings, and Final Actions in the Interstate Air Quality Rule<sup>4</sup>**

### *A. How Did EPA Interpret the CAA's Pollution Transport Provisions?*

The CAIR is based on the "good neighbor" provision of CAA section 110(a)(2)(D), which requires States to develop SIP provisions assuring that emissions from their sources do not contribute significantly to downwind nonattainment or interfere with maintenance of the NAAQS. We first interpreted this provision and developed a detailed methodology for applying it in the NO<sub>x</sub> SIP Call rulemaking (October 27, 1998), which concerned interstate transport of ozone precursors.

As summarized above, the CAIR requires upwind States to submit SIP revisions requiring their sources to eliminate emissions of certain precursors for PM<sub>2.5</sub> and ozone, to protect downwind nonattainment areas. We developed the CAIR and this proposal relying heavily on the NO<sub>x</sub> SIP Call approach. In the NO<sub>x</sub> SIP Call, we interpreted section 110(a)(2)(D) to authorize us to determine the amount of emissions in upwind States that "contribute significantly" to downwind nonattainment or "interfere with" downwind maintenance, and to require those States to eliminate that amount of emissions. We recognized that States must retain full authority to choose the sources to control, and the control mechanisms, to achieve those reductions.

In the NO<sub>x</sub> SIP Call, we set out several criteria or factors for the "contribute significantly" test, and further indicated that the same criteria should apply to the "interfere with maintenance" provision.<sup>5</sup> The EPA

<sup>4</sup> We note again that this section is provided for purposes of information, and not to reopen or reconsider any issues discussed in the section.

<sup>5</sup> In the NO<sub>x</sub> SIP Call, because the same criteria applied, the discussion of the "contribute significantly to nonattainment" test generally also applied to the "interfere with maintenance" test. However, in the NO<sub>x</sub> SIP Call, EPA stated that the "interfere with maintenance" test applied with respect to only the 8-hour ozone NAAQS (63 FR 57379-80).

determined the amount of emissions that significantly contribute to downwind nonattainment from sources in a particular upwind State primarily by (i) evaluating, with respect to each upwind State, several air quality related factors, including determining that all emissions from the State have a sufficiently great impact downwind (in the context of the collective contribution nature of the ozone problem); and

(ii) Determining the amount of that State's emissions that can be eliminated through the application of highly cost-effective controls. Before reaching a conclusion, EPA evaluated several secondary, and more general, considerations. These include:

- The consistency of the regional reductions with the attainment needs of the downwind areas with nonattainment problems;
- The overall fairness of the control regimes required of the downwind and upwind areas, including the extent of the controls required or implemented by the downwind and upwind areas;
- General cost considerations, including the relative cost effectiveness of additional downwind controls compared to upwind controls (63 FR 57403).

In the CAIR rulemaking, we utilized much the same interpretation and application of section 110(a)(2)(D) for regulating downwind transport of precursors of ozone and PM<sub>2.5</sub> as we adopted for the NO<sub>x</sub> SIP Call. We adjusted some aspects of the CAIR analytic approaches for various reasons, including the need to account for regulation of a different pollutant (PM<sub>2.5</sub>) with an additional precursor (SO<sub>2</sub>). The CAIR's approach to the ozone issue is essentially the same as in the NO<sub>x</sub> SIP Call, but applied to more recent data on the relevant air quality and cost factors.

For a more detailed discussion of how we interpreted the CAA pollution transport provisions, see section II of the CAIR in today's **Federal Register**.

### *B. Which Air Pollutants Did EPA Address in the CAIR and Why?*

In section III of the CAIR (add cite), EPA provided the following characterization of the origin and distribution of 8-hour ozone air quality problems: The ozone present at ground level as a principal component of photochemical smog is formed in sunlit conditions through atmospheric reactions of two main classes of precursor compound: Volatile organic compounds (VOCs) and NO<sub>x</sub> [mainly nitrogen oxide (NO) and nitrogen dioxide (NO<sub>2</sub>)]; and the formation of

ozone increases with temperature and sunlight, which is one reason ozone levels are higher during the summer.

In the CAIR, EPA noted that we continue to rely on the assessment of ozone transport made in great depth by the Ozone Transport Assessment Group (OTAG) in the mid-1990s.<sup>6</sup> As indicated in the NO<sub>x</sub> SIP Call proposal, the OTAG Regional and Urban Scale Modeling and Air Quality Analysis Work Groups reached the following conclusions:

- Regional NO<sub>x</sub> emissions reductions are effective in producing ozone benefits; the more NO<sub>x</sub> reduced, the greater the benefit.
- Controls for VOC are effective in reducing ozone locally and are most advantageous to urban nonattainment areas (62 FR 60320, November 7, 1997).

In section III of the CAIR, we summarized key scientific and technical aspects of the occurrence, formation, and origins of PM<sub>2.5</sub>, as well as findings and observations relevant to formulating control approaches for reducing the contribution of transport to fine particle problems. For a detailed discussion of the key concepts and provisional conclusions drawn from the CAIR, see section III of the CAIR published in today's **Federal Register**.

PM<sub>2.5</sub> in ambient air is a complex mixture of component of different chemical compositions and origins. Based on the understanding of current scientific and technical information, as well as our air quality modeling, as summarized in the CAIR in today's **Federal Register**, we concluded that it was both appropriate and necessary to focus on control of SO<sub>2</sub> and NO<sub>x</sub> emissions as the most effective approach to reducing the contribution of interstate transport to PM<sub>2.5</sub>. Current information relating to sources and controls for other components identified in transported PM<sub>2.5</sub> (carbonaceous particles, ammonium, and crustal materials) does not, at this time, provide an adequate basis for regulating the regional transport of emissions responsible for these PM<sub>2.5</sub> components (69 FR 4582). For all of these components, the lack of knowledge of and ability to quantify accurately the interstate transport of these components limited our ability to include these components in this rule.

For a more detailed discussion of how we chose which pollutants to regulate, see section III.B.1.a of the final CAIR in the rules section of today's **Federal Register**.

### C. Air Quality Analysis of Ozone and PM<sub>2.5</sub> Contributions Among States

For the CAIR, we performed State-by-State zero-out modeling to quantify the contribution from emissions in each State to future ozone and PM<sub>2.5</sub> nonattainment in other States and to determine whether that contribution meets requirements of the "contribute significantly" test. This zero-out modeling technique provides an estimate of downwind impacts by comparing the model predictions from the 2010 base case to the predictions from a run in which all anthropogenic NO<sub>x</sub> emissions (in the case of ozone) or all anthropogenic SO<sub>2</sub> and NO<sub>x</sub> emissions (in the case of PM<sub>2.5</sub>) are removed from specific States, one State at a time. Counties presently exceeding the ozone or PM<sub>2.5</sub> NAAQS and forecast to be nonattainment for ozone or PM<sub>2.5</sub> in the 2010 Base Case were used as receptors for quantifying interstate contributions of ozone and/or PM<sub>2.5</sub>. For each State-by-State zero-out run, we projected the ozone design value or the annual average PM<sub>2.5</sub> concentration at each receptor. The contribution from an upwind State to nonattainment at a given downwind receptor was determined by calculating difference in ozone or PM<sub>2.5</sub> concentration between the 2010 Base Case and the zero-out run at that receptor. We followed this process for each State-by-State zero-out run and each receptor, for both ozone and PM<sub>2.5</sub>. For each upwind State, we identified the largest PM<sub>2.5</sub> contribution from that State to a downwind nonattainment receptor in order to determine the magnitude of the maximum downwind contribution to PM<sub>2.5</sub> nonattainment from each State. The maximum downwind contribution was our chosen metric for determining whether or not the PM<sub>2.5</sub> contribution was significant. After considering an updated analysis and public comments, we applied a threshold of 0.2 µg/m<sup>3</sup> for this determination. For ozone, we applied a multi-metric test of significant contribution. For ozone, we also used a second method of quantifying State-to-State contributions, known as source receptor modeling, in addition to the emissions zero-out approach just described. This contribution analysis is more fully described in section VI of the preamble for the CAIR.

### D. Analysis of Highly Cost-Effective Controls and Timeframe for Emissions Reductions

#### 1. Overall Criteria

In section IV.A of the CAIR rulemaking published in today's **Federal Register**, we considered a

variety of factors in evaluating the source categories from which highly cost-effective reductions may be available and the level of reduction assumed from that sector. These include:

- The availability of information,
- The identification of source categories emitting relatively large amounts of the relevant emissions,
- The performance and applicability of control measures,
- The cost effectiveness of control measures, and
- Engineering and financial factors that affect the availability of control measures.

We further stated that overall, "We are striving \* \* \* to set up a reasonable balance of regional and local controls to provide a cost-effective and equitable governmental approach to attainment with the NAAQS for fine particles and ozone." These criteria are unaffected by this proposal.

#### 2. Evaluation of Cost Effectiveness and Feasibility

Section IV in the CAIR Notice of Final Rulemaking (NFR) preamble describes EPA's determination of regionwide SO<sub>2</sub> and NO<sub>x</sub> control levels. As described in section IV in the CAIR NFR preamble, EPA determined that highly cost-effective emissions reductions may be obtained by controlling EGUs. The EPA determined the amounts of emissions reductions that must be eliminated in upwind States to help downwind States achieve attainment of the PM<sub>2.5</sub> and ozone NO<sub>x</sub> NAAQS, by assuming the application of highly cost-effective control measures to EGUs and determining the emissions reductions that would result.

For CAIR, EPA determined highly cost-effective regionwide amounts of emissions reductions based on, as in the NO<sub>x</sub> SIP Call, comparison to reference lists of the cost effectiveness of other regulatory controls. We developed reference lists for both average and marginal cost effectiveness of those other controls. By comparison to the reference lists, EPA determined that the CAIR final (2015) SO<sub>2</sub> and NO<sub>x</sub> regionwide control levels are highly cost effective. The EPA also developed marginal cost-effectiveness curves for SO<sub>2</sub> and NO<sub>x</sub> abatement at varying levels of stringency, to corroborate its cost-effectiveness determinations.

The EPA determined the interim control levels (commencing in 2009 for NO<sub>x</sub> and in 2010 for SO<sub>2</sub>) based on evaluating the feasibility of installing the necessary emission control retrofits. Although the interim regionwide control levels were determined based on

<sup>6</sup> Ozone Transport Assessment Group, OTAG Final Report, 1997.

feasibility considerations, EPA also evaluated the cost effectiveness of the interim control levels to ensure that they were also highly cost effective.

Section IV.C in the CAIR NFR preamble describes EPA's feasibility analysis, and section IV.A describes our evaluation of highly cost-effective controls. Section V in the CAIR NFR preamble describes the method EPA used to apportion regionwide control levels to the affected States. A technical support document in the CAIR docket entitled "Modeling of Control Costs, Emissions, and Control Retrofits for Cost Effectiveness and Feasibility Analyses" describes EPA's use of the Integrated Planning Model (IPM) for its cost-effectiveness and feasibility analyses. In addition, a technical support document entitled "Boilermaker Labor Analysis for the Final Clean Air Interstate Rule" provides further explanation of EPA's feasibility analyses. Documentation for IPM, as well as IPM output files, are available in the CAIR docket.

### 3. CAIR Regionwide SO<sub>2</sub> and NO<sub>x</sub> Emission Reduction Requirements

The CAIR requires annual SO<sub>2</sub> and NO<sub>x</sub> reductions in the District of Columbia and the following 23 States: Alabama, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin. If all affected States choose to implement the CAIR annual SO<sub>2</sub> emission reduction requirements by controlling EGUs, the regionwide annual SO<sub>2</sub> emissions caps that will apply for EGUs in these 23 States and the District of Columbia are 3.6 million tons in 2010 and 2.5 million tons in 2015. If all affected States choose to implement the CAIR annual NO<sub>x</sub> emission reduction requirements by controlling EGUs, the regionwide annual NO<sub>x</sub> emissions caps that will apply for EGUs in these 23 States and the District of Columbia are 1.5 million tons in 2009 and 1.3 million tons in 2015.

The CAIR does not require annual SO<sub>2</sub> or NO<sub>x</sub> emissions reductions in Delaware or New Jersey. However, today EPA is proposing to require annual SO<sub>2</sub> and NO<sub>x</sub> reductions in these two States. Proposed annual SO<sub>2</sub> and NO<sub>x</sub> budgets for Delaware and New Jersey are presented later in this preamble. If EPA finalizes these proposed annual SO<sub>2</sub> and NO<sub>x</sub> budgets for Delaware and New Jersey—and if those States choose to implement their annual emission reduction requirements by controlling EGUs—then the CAIR regionwide EGU

caps would be revised to include reduction requirements for these two States. The revised annual SO<sub>2</sub> caps, including Delaware and New Jersey, would be 3.7 million tons in 2010 and 2.6 million tons in 2015. The revised annual NO<sub>x</sub> caps, including Delaware and New Jersey, would be 1.5 million tons in 2009 and 1.3 million tons in 2015.

In addition to its annual SO<sub>2</sub> and NO<sub>x</sub> emission reduction requirements, the CAIR requires ozone season NO<sub>x</sub> emissions reductions in the District of Columbia and the following 25 States: Alabama, Arkansas, Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin. If all affected States choose to implement the CAIR ozone season NO<sub>x</sub> emission reduction requirements by controlling EGUs, the regionwide ozone season NO<sub>x</sub> emissions caps that will apply for EGUs in these 25 States and the District of Columbia are 0.6 million tons in 2009 and 0.5 million tons in 2015.

### III. Proposed Inclusion of Delaware and New Jersey in the Clean Air Interstate Rule

#### A. Why Is EPA Reconsidering the Status of Delaware and New Jersey in the CAIR?

As explained earlier, section 110(a)(2)(D) of the CAA requires States to include in their SIPs adequate provisions prohibiting emissions that will contribute significantly to nonattainment in, or interfere with maintenance by, any other State. The term "contribute significantly" is not further defined, so in implementing this section we have had to develop an analytical approach to give specific meaning to that term. The underlying logic of the analytical approach used in both the NO<sub>x</sub> SIP Call and the CAIR is that the emission reduction efforts needed to reach attainment should be reasonably balanced between the State containing a nonattainment area and upwind States significantly contributing to the nonattainment. In this way, control efforts on one side of a border are not undermined (and even rendered futile) by out-of-State emissions, and highly cost-effective emissions reductions by out-of-State sources which contribute significantly to downwind receptors' nonattainment are achieved. We believe this approach is both efficient and equitable, so that overall costs are less and costs are more

fairly distributed than if the burden of reaching attainment were entirely on the State with the nonattainment area.

We are proposing to retain this underlying analytical approach, but to treat Delaware and New Jersey as special cases and as a single geographic area, because of their relatively small size (and correspondingly lower total emissions), because of the relatively high emissions density of these States, because we believe doing so will achieve a result that is more in keeping with the intention of section 110(a)(2)(D), and because doing so will ensure that a State located between an upwind State that significantly contributes to nonattainment in a downwind State, and that downwind State, carries its appropriate emission reduction obligation mandated by section 110(a)(2)(D). Specifically, we propose to combine Delaware and New Jersey for purposes of assessing whether that combination is contributing significantly to nonattainment of the PM<sub>2.5</sub> NAAQS by downwind receptors under section 110(a)(2)(D), and to apply the finding from that combined assessment to each State.

As stated earlier, the analytical approach used for the CAIR has two parts, the first of which is a test of whether the air quality contribution from one entire State to nonattainment in any part of another State is strong enough to be considered significant, pending consideration of control costs. For ozone, we used a test for this first part which is based on several metrics of air quality contribution, involving absolute magnitude, relative magnitude, and frequency. For PM<sub>2.5</sub>, we used a test with the single criterion of whether the PM<sub>2.5</sub> air quality contribution from an upwind State to nonattainment in a downwind State, due to total anthropogenic SO<sub>2</sub> and NO<sub>x</sub> emissions in the upwind State, was 0.2 µg/m<sup>3</sup> or more. We believe that this specific form of the analytical approach used in the final CAIR rule has very appropriately identified a set of 23 States and the District of Columbia that should make certain reductions in annual emissions by 2009 for NO<sub>x</sub> and by 2010 for SO<sub>2</sub>, and larger reductions by 2015 for NO<sub>x</sub> and SO<sub>2</sub>, in order to avoid contributing significantly to PM<sub>2.5</sub> nonattainment or interfere with maintenance in other States. Similarly, we believe that the original analytical approach has very appropriately identified a set of 25 States and the District of Columbia that should make certain reductions in ozone season NO<sub>x</sub> emissions by 2009, and larger reductions by 2015, in order to avoid contributing significantly to

ozone nonattainment or interfere with maintenance in other States.

In the course of applying that analytical approach, we realized that an upwind State may have relatively low total emissions and thus have a maximum contribution on other States that is below the air quality contribution threshold used in the CAIR, simply because the State is small in geographic area, and yet clearly contributes to a degree to PM<sub>2.5</sub> nonattainment in downwind States, because the upwind State is located between an even further upwind State that significantly contributes to nonattainment in a downwind State, and the downwind receptor State. Also, Delaware and New Jersey each has substantial emissions for its size. Therefore, excluding Delaware or New Jersey from emission reduction requirements related to PM<sub>2.5</sub> might prevent the desired balancing of local and upwind controls. Excluding either State could forgo opportunities for highly cost-effective control that would improve air quality in nearby States' nonattainment areas. Ignoring the contributions of Delaware and New Jersey could result in both air quality detriments and cost inefficiencies and inequities.

The EPA considered alternative approaches to addressing this issue. We do not believe it would be appropriate to consider amending or revising the significance criteria set forth in the final CAIR notice. Nevertheless, we believe that these two States, which combined represent a significant source of emissions, should not be allowed to fail to meet these tests, in the unique circumstances presented here, solely because of their comparatively small geographic size. We have faced a similar issue with respect to small geographic entities in the NO<sub>x</sub> SIP Call, and more recently in CAIR. In the NO<sub>x</sub> SIP Call we combined both Delaware and the District of Columbia with Maryland in the contribution analyses, foreshadowing the issues addressed by this proposal. Furthermore, the final CAIR similarly addressed the special case of one small political jurisdiction, the District of Columbia and combined that with Maryland. In all the analysis of air quality contributions for the CAIR, we combined the District of Columbia and Maryland into one unit for purposes of analyzing contributions to nonattainment in other States, because of the small size of the District of Columbia and, hence, its emissions, and its close proximity to Maryland. We applied the finding from this combined analysis to each jurisdiction separately. We did not receive any adverse comment on this approach. Nor did we

receive adverse comment in the SIP Call rule regarding combining Delaware, Maryland, and the District of Columbia in the contribution analysis.

The final CAIR's exclusion of Delaware and New Jersey for purposes of PM<sub>2.5</sub> drew our attention because of features unique to Delaware and New Jersey. Table III-1 presents relevant facts regarding Delaware and New Jersey, and Table III-2 presents similar information for Maryland, New York, and Pennsylvania for comparison. On balance, we believe the most appropriate way to address the factual situation of the issue here is to consider Delaware's and New Jersey's contributions together, as one unit of analysis. Since Delaware and New Jersey are already subject to CAIR for purposes of ozone, the remainder of this discussion focuses on PM<sub>2.5</sub> considerations.

Delaware and New Jersey are both relatively small in land area; both are smaller than any of the 23 states already subject to CAIR for purposes of PM<sub>2.5</sub>. Portions of both States are urbanized and industrialized, and overall both have a high emissions density, comparable to that of their neighbors.<sup>7</sup> Delaware has an emissions density of 76.1 tons/year per square mile, almost twice that of neighboring Pennsylvania and also higher than that of Maryland, States already linked to downwind nonattainment areas. New Jersey has an emissions density of 46.6 tons/year per square mile, above that of Pennsylvania although somewhat lower than that of Maryland.

Delaware and New Jersey are near major cities where current PM<sub>2.5</sub> nonattainment affects large populations. Also, both are relatively near to a county or counties in other States that are projected to still be nonattainment for PM<sub>2.5</sub> in 2010 in the base case. Delaware and New Jersey are also near large markets for electric power in other States subject to CAIR for PM<sub>2.5</sub>, and both are part of the PJM Interconnection electricity grid. Another consideration is the potential for emission increases as a result of emissions shifting from States subject to the PM<sub>2.5</sub> requirements of CAIR to States not subject to those requirements, *e.g.*, New Jersey and Delaware. The EPA requests comment

<sup>7</sup> By emissions density we mean the total SO<sub>2</sub> and NO<sub>x</sub> emissions from each State in tons per year, divided by the geographic area of the State in square miles. For comparing emissions densities for the purposes of contributions to PM<sub>2.5</sub> nonattainment, we have compared the emissions density expressed in terms of SO<sub>2</sub> plus NO<sub>x</sub> emissions per square mile. Such a comparison is a reasonable measure of comparison that is independent of the disparity in the land area size of the two States.

on whether it is appropriate under section 110(a)(2)(D) to consider this factor in this rulemaking.<sup>8</sup>

Both Delaware and New Jersey lie between upwind States that are now subject to the CAIR for both ozone and PM<sub>2.5</sub> and downwind receptor PM<sub>2.5</sub> nonattainment areas that are linked to one or both of those upwind States. Maryland has already been determined to contribute significantly to nonattainment in both Philadelphia and New York City, Pennsylvania has already been determined to contribute significantly to nonattainment in New York City, and New York has been determined to contribute to nonattainment in Lancaster County, Pennsylvania. New Jersey lies between Pennsylvania and New York City, and Delaware lies between Maryland and both Philadelphia and New York City. This means that emissions from Delaware and New Jersey are mixed with the emissions of these other upwind States and arrive together at the downwind nonattainment areas in other States. Moreover, Delaware and New Jersey are closer to these receptors.

Given these highly distinctive facts, considered in conjunction with the data concerning the downwind emissions contributions from New Jersey and Delaware, it is reasonable that Delaware and New Jersey could be viewed as contributing significantly to PM<sub>2.5</sub> nonattainment in downwind States. We have therefore considered how to determine in an objective way whether they should be formally considered to contribute to PM<sub>2.5</sub> nonattainment in specific other States and thus whether they incur a section 110(a)(2)(D) obligation. We propose to do this by treating the combination of these two small states as a unit, subjecting that combination to the 0.2 µg/m<sup>3</sup> threshold for PM<sub>2.5</sub> air quality contribution used in the original analytical approach for the CAIR. As noted, this is consistent with our approach in the NO<sub>x</sub> SIP Call, where Maryland, Delaware, and the District of Columbia were treated as a combined unit. We note also that Delaware and New Jersey lie side-by-side and together form a compact geographic area. In addition, Delaware

<sup>8</sup> Because electricity generation costs in States subject to the CAIR will in general rise to some degree to cover the cost of new emission controls, there is the possibility that some electrical generation load and the associated emissions may shift to States that remain outside the CAIR. Such shifting may not always occur, because physical factors in the electrical transmission and distribution system, economic factors, or other regulatory requirements may prevent it. The IPM model predicts that increases will occur in Delaware and New Jersey if they are not included under CAIR's PM<sub>2.5</sub>-related requirements.

and New Jersey are both part of the PJM Interconnection, which means they are in a coordinated portion of the electricity grid. We believe this further supports combining them for purposes of this analysis. By combining these two small States we believe the underlying

cost-balancing and control program efficiency goals of our original analytical approach can be better met. Based on the air quality modeling that was done for the CAIR, we propose to find that when treated as a combined unit, Delaware and New Jersey do in

fact contribute 0.2 µg/m<sup>3</sup> or more to PM<sub>2.5</sub> nonattainment in New York County, NY and may do so in one or more counties in eastern Pennsylvania. The next section of this preamble presents these modeling results.

TABLE III-1.—CONTRIBUTION FACTORS FOR STATES UNDER REVIEW

State	Contribution factors
Delaware .....	<p><i>Land Area of State</i> 2050 square miles.</p> <p><i>Most Affected Downwind Nonattainment Counties</i> Philadelphia Co., PA. Delaware Co., PA. Lancaster Co., PA. Berks Co., PA. New York Co., NY.</p> <p><i>Geography</i> The Wilmington area, which is the most densely industrialized and populated part of Delaware, lies on or very close to the lines of transport between the Maryland suburbs of the District of Columbia and Philadelphia Co. and Delaware Co. PA, and also on or very close to the lines of transport between Baltimore and the Philadelphia Co. and Delaware Co., PA. The Wilmington area also lies on or very close to the line of transport between these areas of Maryland and New York Co., NY.</p> <p><i>2010 Base Emissions of SO<sub>2</sub> plus NO<sub>x</sub></i> 156,000 tons/year.</p> <p><i>SO<sub>2</sub> plus NO<sub>x</sub> Emissions Density</i> 76.1 tons/year per square mile.</p> <p><i>Emission Changes</i> IPM predicts that implementing the CAIR without subjecting Delaware to limits on annual emissions will result in increases in EGU SO<sub>2</sub> emissions of 5,000 tons and 2,000 tons in 2010 and 2015, respectively, and an increase in NO<sub>x</sub> emissions of 2,000 tons in 2010 with no increase in 2015.</p>
New Jersey .....	<p><i>Land Area of State</i> 7510 square miles.</p> <p><i>Most Affected Downwind Nonattainment Counties</i> New York Co., NY. Berks Co., PA. Lancaster Co., PA.</p> <p><i>Geography:</i> Some part of New Jersey lies in the path of transport connecting any source in Pennsylvania to New York Co., NY.</p> <p><i>2010 Base Emissions of SO<sub>2</sub> plus NO<sub>x</sub></i> 350,000 tons/year.</p> <p><i>SO<sub>2</sub> Plus NO<sub>x</sub> Emissions Density</i> 46.58 tons/year per square mile.</p> <p><i>SO<sub>2</sub> plus NO<sub>x</sub> Emission Changes</i> IPM predicts that implementing the CAIR without subjecting New Jersey to limits on annual emissions will result in increases in EGU SO<sub>2</sub> emissions of 1,000 and 2,000 tons in 2010 and 2015, respectively, and an increase in EGU NO<sub>x</sub> emissions of 1,000 tons in 2010 and 2015.</p>

TABLE III-2.—CONTRIBUTION FACTORS FOR NEIGHBORING STATES ALREADY SUBJECT TO THE CAIR, FOR PURPOSES OF COMPARISON TO DELAWARE AND NEW JERSEY

State	Contribution factors
Maryland & DC .....	<p><i>Size of State</i> <i>Land Area</i> 9,740 square miles.</p> <p><i>2010 Base Emissions of SO<sub>2</sub> plus NO<sub>x</sub></i> 631,000 tons/year.</p> <p><i>Nearby Downwind Nonattainment Counties with Significant Contribution From This State</i> Lancaster Co., PA. Berks Co., PA. Philadelphia Co., PA. Delaware Co., PA. New York Co., NY. Union Co., NJ.</p> <p><i>SO<sub>2</sub> plus NO<sub>x</sub> Emissions Density</i> 64.8 tons/year per square mile.</p>

TABLE III-2.—CONTRIBUTION FACTORS FOR NEIGHBORING STATES ALREADY SUBJECT TO THE CAIR, FOR PURPOSES OF COMPARISON TO DELAWARE AND NEW JERSEY—Continued

State	Contribution factors
New York .....	<i>Size of State</i> <i>Land Area</i> 48,560 square miles. <i>2010 Base Emissions of SO<sub>2</sub> plus NO<sub>x</sub></i> 902,400 tons/year. <i>Nearby Downwind Nonattainment Counties with Significant Contribution From This State</i> New Haven, CT. Berks Co., PA. Lancaster Co., PA. Philadelphia Co., PA. Delaware Co., PA. Union Co., NJ. <i>SO<sub>2</sub> plus NO<sub>x</sub> Emissions Density</i> 18.6 tons/year per square mile.
Pennsylvania .....	<i>Size of State</i> <i>Land Area</i> 45,360 square miles. <i>2010 Base Emissions of SO<sub>2</sub> plus NO<sub>x</sub></i> 1,818,000 tons/year. <i>Nearby Downwind Nonattainment Counties with Significant Contribution From This State</i> New York Co., NY. Union Co., NJ. <i>SO<sub>2</sub> plus NO<sub>x</sub> Emissions Density</i> 40.1 tons/year per square mile.

### B. Air Quality Modeling Results

As explained in section II above, the air quality modeling used to assess contributions to PM<sub>2.5</sub> nonattainment estimated the contribution by individual States by selectively removing anthropogenic emissions of SO<sub>2</sub> and NO<sub>x</sub> from one State at a time, and observing how that change in emissions affected PM<sub>2.5</sub> concentrations in other States. This included separate assessments for New Jersey and Delaware, and did not include any run in which emissions in both states were removed together. Consequently, we do not presently have exactly the same type of air quality modeling analysis for the combination of Delaware and New Jersey as we do for the 23 States already subject to CAIR for purposes of PM<sub>2.5</sub>. We intend to perform such modeling as soon as possible and to make the results available for public comment through a Notice of Data Availability.

However, a tentative assessment is currently possible. Since results are available from the separate air quality model runs that were done for Delaware and New Jersey, we can add (or

superimpose) the contributions from the two States on each individual receptor monitor in order to estimate the contribution that would be calculated if the two states were taken as one unit of analysis. While there are non-linear chemical and other atmospheric processes which could make the outcomes of these two approaches somewhat different, we believe the superimposition approach is sufficiently persuasive to support proposing inclusion of both States as significantly contributing to downwind PM<sub>2.5</sub> nonattainment problems.

Table III-3 presents the superimposition analysis, using detailed contribution results from the air quality analysis for the final CAIR.<sup>9</sup> The table shows that the sum of Delaware's and New Jersey's contributions to PM<sub>2.5</sub> nonattainment in New York County, New York is 0.21 µg/m<sup>3</sup> for one of the monitors in that county. We note that this is the result that obtained from using the base case emissions from the two States. In actuality, as previously stated, we estimate, based on the IPM model, that under the final CAIR, which

does not require reductions from Delaware and New Jersey for purposes of PM<sub>2.5</sub>, emissions in Delaware and New Jersey will be higher than in this base case. Thus, the actual contribution of Delaware and New Jersey combined and considered as a unit may be higher than the 0.21 µg/m<sup>3</sup> result shown in the table. As mentioned above, non-linearities in the atmospheric process may also affect the result, in either direction. Based on this analysis, we propose that New Jersey and Delaware taken together as one unit contribute significantly to PM<sub>2.5</sub> nonattainment in New York County.

Of the several PM<sub>2.5</sub> nonattainment counties in eastern Pennsylvania that are shown in Table III-3, none have a superimposed contribution from Delaware and New Jersey that is as large as 0.2 µg/m<sup>3</sup>. However, the planned air quality modeling that treats Delaware and New Jersey as a combined unit and that reflects the above mentioned emissions increases as a result of their current exclusion from CAIR may yield a different result.

<sup>9</sup>The Air Quality Technical Support Document provides full details of how the air quality modeling was done and all of the results.



TABLE III-3.—ASSESSMENT OF COMBINED CONTRIBUTION BY DELAWARE AND NEW JERSEY TO PM<sub>2.5</sub> NONATTAINMENT BASED ON SUPERIMPOSITION OF RESULTS FROM AIR QUALITY MODELING FOR CAIR

Receptor state	Receptor county	PM <sub>2.5</sub> Contribution from Delaware (µg/m <sup>3</sup> )	PM <sub>2.5</sub> Contribution from New Jersey (µg/m <sup>3</sup> )	Sum (µg/m <sup>3</sup> )
New York .....	New York .....	0.08	0.13	0.21
Pennsylvania .....	Berks .....	0.10	0.06	0.16
Pennsylvania .....	Dauphin .....	0.07	0.04	0.11
Pennsylvania .....	Delaware .....	0.14	0.04	0.18
Pennsylvania .....	Lancaster .....	0.12	0.06	0.18
Pennsylvania .....	Philadelphia .....	0.14	0.04	0.18
Pennsylvania .....	York .....	0.09	0.04	0.13

**IV. Proposed Findings and Action**

*A. Proposed Findings of Significant Contribution for Delaware and New Jersey*

We are proposing to find that emissions of the PM<sub>2.5</sub> precursors SO<sub>2</sub> and NO<sub>x</sub> emitted by Delaware and New Jersey contribute significantly to nonattainment of the PM<sub>2.5</sub> NAAQS in downwind States. Accordingly, we are proposing SIP requirements for these States under section 110(a)(1) to meet the requirements of section 110(a)(2)(D), namely, to contain adequate provisions to prohibit SO<sub>2</sub> and NO<sub>x</sub> emissions from sources or activities within the States from “contribut[ing] significantly to nonattainment” of the PM<sub>2.5</sub> NAAQS in downwind States.

*B. SIP Approval Criteria*

The CAIR added two new sections to Title 40 of the Code of Federal Regulations, §§ 51.123 and 51.124 containing requirements related to NO<sub>x</sub> and SO<sub>2</sub> respectively, which establish the requirement for submission of SIP revisions to comply with the CAIR and the criteria which EPA will use to review these revisions for approval or disapproval. The content of these sections is presented in section VII of the preamble to the CAIR, which appears in the rules section of today’s **Federal Register**. Delaware and New Jersey are already subject to the ozone-related provisions of these sections but not to the provisions that relate to PM<sub>2.5</sub>. We propose to amend these two sections to extend the PM<sub>2.5</sub>-related provisions to both States. The practical effect of the proposed amendments will be to subject the States to budgets (if they choose to control large EGUs) for annual emission reduction requirements of NO<sub>x</sub> and SO<sub>2</sub>.

The proposed NO<sub>x</sub> and SO<sub>2</sub> annual and ozone season budgets for New Jersey and Delaware are shown below in Tables IV-1 and IV-2.

TABLE IV-1.—PROPOSED ANNUAL NO<sub>x</sub> BUDGETS [Tons]

Year	Delaware	New Jersey
2009 .....	4,166	12,670
2015 .....	3,472	10,558

TABLE IV-2.—PROPOSED ANNUAL SO<sub>2</sub> BUDGETS [Tons]

Year	Delaware	New Jersey
2010 .....	22,411	32,392
2015 .....	15,687	22,674

State annual SO<sub>2</sub> budgets for the years 2010–2014 (Phase I) are based on a 50 percent reduction from title IV allocations for all units in the affected State. The State annual budgets for 2015 and beyond (Phase II) are based on a 65 percent reduction from title IV allowances allocated to units in the affected State for SO<sub>2</sub> control.

To calculate annual State NO<sub>x</sub> budgets, EPA calculated a total “regional” budget for Delaware and New Jersey using the same methodology as in the CAIR. The EPA calculates the regional NO<sub>x</sub> budget using the highest heat input for each State for the years 1999–2002, multiplied by 0.15 lb/mmBtu (for 2009) and 0.125 lb/mmBtu (for 2015).

The EPA is proposing to calculate State NO<sub>x</sub> budgets through a fuel-adjusted heat-input basis, as is being finalized in the CAIR. State budgets would be determined by multiplying historic heat input data (summed by fuel) by different adjustment factors for the different fuels. These factors reflect for each fuel (coal, gas and oil), the 1999–2002 average emissions by State, summed for the CAIR region, divided by average heat input by fuel by State, summed for the CAIR region. The resulting adjustment factors from this calculation are 1.0 for coal, 0.4 for gas and 0.6 for oil. The factors would reflect

the inherently higher emissions rate of coal-fired plants, and consequently the greater burden on coal plants to control emissions. The regional budget is then apportioned to States on a pro-rata basis, based on each State’s share of total adjusted average heat input.

The final CAIR annual NO<sub>x</sub> cap and trade rule will provide additional incentives for early annual NO<sub>x</sub> reductions by creating a Compliance Supplement Pool (CSP) for CAIR States from which they can distribute allowances for early, annual NO<sub>x</sub> emissions reductions in the years 2007 and 2008. The CSP functions much like the NO<sub>x</sub> SIP Call’s CSP. The CSP would be comprised of CAIR annual NO<sub>x</sub> allowances of vintage year 2009.

In the final CAIR, EPA apportions a 200,000 ton CSP to all States. The CSP was apportioned based on a State’s share of the required emissions reductions (*i.e.*, the difference between their State baseline emissions and their projected emissions under the CAIR). States may distribute these CAIR NO<sub>x</sub> allowances to sources based upon either: (1) A demonstration to the State of NO<sub>x</sub> emissions reductions in surplus of any existing NO<sub>x</sub> emission control requirements; or (2) a demonstration to the State that the facility has a “need” that would affect electricity grid reliability. Sources that wish to receive CAIR CSP allowances based upon a demonstration of surplus emission reductions will be awarded one CAIR annual NO<sub>x</sub> allowance for every ton of NO<sub>x</sub> emissions reductions. (Should a State receive more requests for allowances than their share of the CAIR CSP, the State would pro-rate the allowance distribution.) Determination of surplus emissions must use emissions data measured using Part 75 monitoring.

The CSP for CAIR States affected by the CAIR NFR has a total of 198,494 CAIR NO<sub>x</sub> allowances in addition to the annual CAIR NO<sub>x</sub> budgets. If Delaware and New Jersey are part of the final CAIR program, as we propose, they would be allotted an additional 1,503

allowances. Table IV-3 shows the NO<sub>x</sub> CSP for New Jersey and Delaware.

**TABLE IV-3.—PROPOSED NO<sub>x</sub> COMPLIANCE SUPPLEMENT POOL**  
[Tons]

Delaware	New Jersey
843	660

**C. SIP Submittal Deadline**

We are also proposing today to require that PM<sub>2.5</sub> transport SIPs be submitted, under CAA section 110(a)(1), as soon as practicable, but not later than 18 months from the date of signature of the CAIR, *i.e.*, September 11, 2006. Our expectation is that this will be no less than 12 months from the date of promulgation of the present proposal.

We note that this would leave the two States affected by this proposal less time to submit transport SIPs than allowed for States covered by the CAIR rule. There are a number of reasons this result appears to be justifiable. First, Delaware and New Jersey were covered by the initial CAIR proposal for PM<sub>2.5</sub> precursors, so the States already have been on notice that they might have to submit transport SIPs for PM<sub>2.5</sub>. Moreover, we are proposing here to adopt all of the key features of the initial CAIR proposal, including the same annual SO<sub>2</sub> and NO<sub>x</sub> reductions and budgets and the same implementation mechanisms. Again, since these States have been on notice regarding these issues, we believe that less time would be needed to submit transport SIPs. Moreover, as noted, we expect to finalize this proposal within 6 months. If we do so, and if we adopt the proposed SIP submittal deadline, transport SIPs would be required within 12 months of the final action, the same period as provided in the NO<sub>x</sub> SIP Call (69 FR 4585).

According to EPA modeling, including New Jersey and Delaware in the annual CAIR program results in only one additional flue gas desulfurization (FGD) unit installation in the two States, *i.e.*, one additional FGD in New Jersey.<sup>10</sup> The EPA modeling shows no additional selective catalytic reduction (SCR) units would be required in the two States.<sup>11</sup> Assuming EPA finalizes this proposal in 6 months (by September 15, 2005) and allows the two States 18 months from signature of the CAIR to submit their SIPs (*i.e.*, due by September 11, 2006), there would be about 40 months remaining for the installation of the one additional FGD required. The EPA estimates 27 months are required to install an FGD. Also, EPA believes sufficient boiler maker labor and other resources exist to support one additional FGD installation by January 1, 2010. Therefore, EPA proposes the above schedule for finalizing and implementing this rule.

For all these reasons, we think it reasonable to propose that Delaware and New Jersey submit PM<sub>2.5</sub> transport SIPs by September 11, 2006.

**D. Emissions Reporting Requirements**

In order to provide emissions inventory information that will allow EPA to better monitor the implementation and effects of the CAIR's emissions reductions, EPA incorporated into the CAIR revisions to the pre-existing emission inventory reporting requirements applicable to States affected by the CAIR. Those requirements were specific to whether a State was affected by the annual emission reduction requirements for SO<sub>2</sub> and NO<sub>x</sub> or only the ozone-season reduction requirements for NO<sub>x</sub>. Because we are proposing to apply the annual emissions reduction requirements to Delaware and New Jersey, we are also proposing to place

these two States under the corresponding provisions of the emissions reporting requirements. The only practical effect of this change relative to existing requirements is that if either State chooses to obtain some of the required annual emissions reductions from a source which emits less than 2500 tons/year of both SO<sub>2</sub> and NO<sub>x</sub> and that source is not also made subject to the EPA-operated emissions trading programs, the State must report the annual emissions of that source to EPA annually in contrast to the triennial requirement that presently applies to such sources.

**V. Expected Effects of the Proposed Action**

**A. Emissions**

EPA has conducted power sector analysis of The CAIR using the IPM. The IPM is a dynamic linear programming model that can be used to examine air pollution control policies for SO<sub>2</sub> and NO<sub>x</sub> throughout the contiguous United States for the entire power system. Documentation for IPM can be found at [www.epa.gov/airmarkets/epa-ipm](http://www.epa.gov/airmarkets/epa-ipm).

Emissions of SO<sub>2</sub> and NO<sub>x</sub> in the CAIR region would be higher under the final CAIR where Delaware and New Jersey are only included in a summer season ozone cap, similar to Connecticut and Massachusetts. If these two States are included as part of the annual SO<sub>2</sub> and NO<sub>x</sub> caps for the CAIR as proposed in this proposal, emissions in the region would be reduced by another 48,000 tons of SO<sub>2</sub> and 11,000 tons of NO<sub>x</sub> from the final CAIR scenario.

The inclusion of Delaware and New Jersey in the annual CAIR requirements would result in additional reductions of SO<sub>2</sub> and NO<sub>x</sub> that would help in achieving attainment for downwind States.

**TABLE V-1.—ANNUAL EMISSIONS FROM AFFECTED SOURCES FOR THE CAIR REGION**<sup>12</sup>  
[Thousand tons]

	2010	2015		
		SO <sub>2</sub>	NO <sub>x</sub>	SO <sub>2</sub>
Base Case .....	8,868	2,826	8,056	2,853
Final CAIR (DE and NJ Included for Ozone Season NO <sub>x</sub> Only) .....	5,336	1,592	4,216	1,342
CAIR Modified By This Proposal (DE and NJ Included for Annual SO <sub>2</sub> and NO <sub>x</sub> ) .....	5,305	1,582	4,168	1,331
Difference between CAIR Scenarios .....	32	10	48	11

**Note:** Numbers may not add due to rounding.

<sup>10</sup> The EPA compared IPM runs with and without New Jersey and Delaware to make this determination. See IPM runs in the docket for further details.

<sup>11</sup> The EPA compared IPM runs with and without New Jersey and Delaware to make this

determination. See IPM runs in the docket for further details.

<sup>12</sup> The CAIR region for purposes of this table includes the following States: Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky,

Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, Wisconsin.

### B. Air Quality

Section VI of the preamble to the CAIR, which appears in the rules section of today's **Federal Register**, describes the air quality modeling performed to determine the projected impacts of the CAIR on PM<sub>2.5</sub> and 8-hour ozone of the SO<sub>2</sub> and NO<sub>x</sub> emissions reductions in the control region modeled. The modeling used to estimate the air quality impact of these reductions assumed annual SO<sub>2</sub> and NO<sub>x</sub> controls for Arkansas, Delaware, and New Jersey (as had been proposed before completion of the final contribution analysis) in addition to the 23-States plus the District of Columbia. Since Arkansas, Delaware, and New Jersey are not included in the final CAIR PM<sub>2.5</sub> region, the modeled estimated impacts are overstated for today's final CAIR which excludes all three States from the CAIR region for PM. Because we are now proposing that Delaware and New Jersey become subject to the PM<sub>2.5</sub>-related emissions limits for SO<sub>2</sub> and NO<sub>x</sub>, the air quality modeling for the final CAIR better approximates the net effects of the CAIR plus today's proposal, but still overestimates the air quality changes somewhat due to the continued discrepancy regarding Arkansas. The Regulatory Impact Analysis for the CAIR discusses these differences in scenarios in more detail.

The EPA analyzed the impacts of the regional emissions reductions in both 2010 and 2015. These impacts are quantified by comparing air quality modeling results for the regional control scenario to the modeling results for the corresponding 2010 and 2015 Base Case scenarios. The 2010 and 2015 emissions reductions and air quality improvements from the regional control strategy modeled are presented in summary form in section VI of the preamble to the CAIR and in detail in the Emission Inventory Technical Support Document and the Air Quality Modeling Technical Support Document for the CAIR.

The EPA estimates, based on the air quality analysis for the CAIR, that the required SO<sub>2</sub> and NO<sub>x</sub> emissions reductions would, by themselves, bring into attainment 52 of the 80 counties that are otherwise expected to be in nonattainment for PM<sub>2.5</sub> in 2010, and 57 of the 75 counties that are otherwise expected to be in nonattainment for PM<sub>2.5</sub> in 2015. The EPA further estimates that the required NO<sub>x</sub> emissions reductions would, by themselves, bring into attainment 3 of the 40 counties that are otherwise expected to be in nonattainment for 8-hour ozone in 2010, and 6 of the 22

counties that are expected to be in nonattainment for 8-hour ozone in 2015. In addition, today's rule will improve PM<sub>2.5</sub> and 8-hour ozone air quality in the areas that will remain nonattainment for those two NAAQS after implementation of today's rule. Because of today's rule, the States with those remaining nonattainment areas will find it less burdensome and less expensive to reach attainment by adopting additional local controls. The CAIR will also reduce PM<sub>2.5</sub> and 8-hour ozone levels in attainment areas.

We have not conducted an incremental analysis of the air quality effects from the proposed extension of the annual emissions reductions requirements to New Jersey and Delaware. However, IPM modeling of EGU emissions indicates that assuming that all States join the EPA trading programs, highly cost-effective emissions reductions will be distributed across the region in addition to New Jersey and Delaware themselves, and contribute to the attainment of these two States' downwind neighbors as well as other States with nonattainment areas.

## VI. Statutory and Executive Order Reviews

### A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether a regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

1. Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;
2. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
3. Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
4. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

In view of its important policy implications and potential effect on the economy of over \$100 million, the CAIR program inclusive of this proposal has been judged to be an economically

"significant regulatory action" within the meaning of the Executive Order. As a result, today's proposal was submitted to OMB for review, and EPA has prepared an economic analysis of the CAIR program including this proposal entitled "Regulatory Impact Analysis of the Final Clean Air Interstate Rule" (March 2005).

### 1. What Economic Analyses Were Conducted for the Rulemaking?

The analyses conducted for the CAIR program (CAIR final rule plus this New Jersey and Delaware proposal) provide several important analyses of impacts on public welfare. These include an analysis of the social benefits, social costs, and net benefits of the regulatory scenario. The economic analyses also address issues involving small business impacts, unfunded mandates (including impacts for Tribal governments), environmental justice, children's health, energy impacts, and requirements of the Paperwork Reduction Act.

### 2. What Are the Benefits and Costs of the CAIR Program?

The benefit-cost analysis shows that substantial net economic benefits to society are likely to be achieved due to reduction in emissions resulting from the CAIR program that includes annual SO<sub>2</sub> and NO<sub>x</sub> controls for New Jersey and Delaware. The results show that the CAIR program would be highly beneficial to society, with annual net benefits (benefits less costs) of approximately \$71.4 or \$60.4 billion in 2010 and \$98.5 or \$83.2 billion in 2015. These alternative net benefits estimates occur due to differing assumptions concerning the social discount rate used to estimate the annual value of the benefits of the rule with the lower estimates relating to a discount rate of 7 percent and the higher estimates a discount rate of 3 percent. All amounts are reflected in 1999 dollars. For more information, see the NFR for the CAIR published in today's **Federal Register** and the Regulatory Impact Analysis for the Final Clean Air Interstate Rule (March 2005).

### 3. What Are the Incremental Costs to the Electricity-Generating Industry Associated With This New Jersey and Delaware Proposal?

The costs presented here represent the total incremental cost to the electricity-generating industry of reducing NO<sub>x</sub> and SO<sub>2</sub> emissions to meet the reduction requirements set forth in the rule, assuming all States participate in a regionwide cap-and-trade program. These costs estimates are referred to as private costs, and these estimates differ

from the cost of the program to society or social cost estimates presented for the CAIR program discussed previously. As shown in Table VI-1, EPA estimates the annual private costs of this proposal are approximately \$30 million in 2010 and \$40 million in 2015. All estimates reflect 1999 dollars. Overall, the impacts of the CAIR program are modest, particularly in light of the large benefits we expect. This industry generates over \$250 billion in annual revenues.<sup>13</sup> The industry has the ability to largely pass along the costs of the rule to consumers, and this will result in the costs largely falling upon the consumers of electricity. Retail electricity prices are projected to increase roughly 2.0–2.7 percent with the CAIR program (inclusive of this proposal) in the 2010 and 2015 timeframe, and then drop below 2.0 percent thereafter. The effects of the CAIR program on natural gas prices and the power sector generation mix is also small, with a 1.6 percent or less increase in natural gas prices projected from 2010 to 2020. There will be continued reliance on coal-fired generation, which is projected to remain at roughly 50 percent of total electricity generated. A relatively small amount of coal-fired capacity, about 5.3 GW (1.7 percent of all coal-fired capacity and 0.5 percent of all generating capacity), is projected to be uneconomic to maintain. For the most part, these units are small and infrequently used generating units that are dispersed throughout the CAIR region. Units projected to be uneconomic to maintain may be ‘mothballed,’ retired, or kept in service to ensure transmission reliability in certain parts of the grid.

As demand grows in the future, additional coal-fired generation is projected to be built under the CAIR program. As a result, both coal-fired generation and coal production for electricity generation are projected to increase from 2003 levels by about 15 percent in 2010 and 25 percent by 2020, and we expect a small shift towards greater coal production in Appalachia and the Interior coal regions of the country with the CAIR.

For today's proposal, EPA analyzed the costs using the IPM. The IPM is a dynamic linear programming model that can be used to examine the economic impacts of air pollution control policies for SO<sub>2</sub> and NO<sub>x</sub> throughout the contiguous U.S. for the entire power system. Documentation for IPM can be found in the docket for this rulemaking or at [www.epa.gov/airmarkets/epa-ipm](http://www.epa.gov/airmarkets/epa-ipm).

<sup>13</sup>In 2003, the electric power industry had retail sales of 259 billion dollars (<http://www.eia.doe.gov/cneaf/electricity/epm/table5-2.html>).

The additional annualized incremental cost of including Delaware and New Jersey in the CAIR program occur because of the additional installation and operation of a modest amount of pollution control equipment and other relatively minor compliance costs.

TABLE VI-1.—ANNUALIZED INCREMENTAL PRIVATE COSTS FOR THE CAIR REGION  
[Billions of 1999 dollars]

Program	Costs in 2010	Costs in 2015
Final CAIR (DE and NJ: Ozone Season NO <sub>x</sub> Only) .....	\$2.33	\$3.59
Final CAIR plus NJ and DE proposal (DE and NJ: Annual SO <sub>2</sub> and NO <sub>x</sub> )	2.36	3.63
Difference between CAIR scenarios .....	0.03	0.04

#### 4. What Potential Benefits May Be Associated With This Proposal?

Air quality modeling was not conducted for the New Jersey and Delaware proposal. For this reason, an analysis of the potential benefits for the New Jersey and Delaware proposal could not be completed with any degree of specificity. However based on the air quality modeling results for the CAIR, we make ball park estimates of the benefits and net benefits that might occur with this proposal. Including New Jersey and Delaware in the CAIR program would result in additional reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions. We estimate that approximately \$630 million of the total annual CAIR program benefits previously discussed are attributable to annual SO<sub>2</sub> and NO<sub>x</sub> controls for New Jersey and Delaware in 2010. This estimate increases to over \$1.1 billion in 2015. The full CAIR analysis including New Jersey and Delaware showed a benefit-cost ratio of around 39:1 in 2015. Based on the relatively low estimated private costs of including New Jersey and Delaware of \$30 million in 2010 and \$40 million in 2015, it is highly unlikely that costs of including New Jersey and Delaware would exceed benefits even if benefits of controlling SO<sub>2</sub> and NO<sub>x</sub> for New Jersey and Delaware were substantially lower than the average benefit we used to estimate the benefits. It is highly unlikely that benefits are much lower than average given the urban nature of much of New Jersey, and the proximity of New Jersey and Delaware to many heavily populated urban areas.

#### B. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2184.01.

The purpose of the ICR is to estimate the anticipated monitoring, reporting, and recordkeeping burden estimates and associated costs for States, local governments, and sources that are expected to result from this proposal. This ICR describes the nature of the information collection and the estimated burden for this proposal. In cases where information is already collected by a related program, the ICR takes into account only the additional burden. This situation arises in States that are also subject to requirements of the Consolidated Emissions Reporting Rule (EPA ICR number 0916.10; OMB control number 2060-0088) or for sources that are subject to the Acid Rain Program (EPA ICR 2152.01; EPA ICR number 1633.13; OMB control number 2060-0258) or NO<sub>x</sub> SIP Call (EPA ICR number 1857.03; OMB number 2060-0445) requirements.

The total monitoring, recordkeeping, and reporting burden to sources resulting from New Jersey and Delaware choosing to participate in a regional cap and trade program are expected to be approximately \$270,000 at the time the monitors are implemented. This estimate includes the annualized cost of installing and operating appropriate SO<sub>2</sub> and NO<sub>x</sub> emissions monitoring equipment to measure and report the total emissions of these pollutants from affected EGUs (serving generators greater than 25 megawatt capacity) for this proposed rule. The burden to State and local air agencies includes any necessary SIP revisions, performing monitoring certification, and fulfilling audit responsibilities.

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

information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this rule, which includes this ICR, under Docket ID number OAR-2003-0053. Submit any comments related to the ICR for this proposed rule to EPA and OMB. See ADDRESSES section at the beginning of this notice for where to submit comments to EPA. Send comments to

OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention: Desk Office for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after May 12, 2005, a comment to OMB is best assured of having its full effect if OMB receives it by June 13, 2005. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*)(RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (Pub. L. 104-121)(SBREFA), provides that whenever an agency is required to publish a general notice of rulemaking, it must prepare and make available an initial regulatory flexibility analysis, unless it

certifies that the rule, if promulgated, will not have "a significant economic impact on a substantial number of small entities." 5 U.S.C. 605(b). Small entities include small businesses, small organizations, 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 that is identified by the North American Industry Classification System (NAICS) Code, as defined by the Small Business Administration (SBA); (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. Table VI-2 lists entities potentially impacted by this rule with applicable NAICS code.

VI-2.—POTENTIALLY REGULATED CATEGORIES AND ENTITIES

Category	NAICS code <sup>1</sup>	Examples of potentially regulated entities
Industry .....	221112	Fossil fuel-fired electric utility steam generating units.
Federal government .....	<sup>2</sup> 221122	Fossil fuel-fired electric utility steam generating units owned by the Federal government.
State/local/Tribal government ..	<sup>2</sup> 221122	Fossil fuel-fired electric utility steam generating units owned by municipalities.
	921150	Fossil fuel-fired electric utility steam generating units in Indian Country.

<sup>1</sup> North American Industry Classification System.

<sup>2</sup> Federal, State, or local government-owned and operated establishments are classified according to the activity in which they are engaged.

According to the SBA size standards for NAICS code 221112 Utilities-Fossil Fuel Electric Power Generation, a firm is small if, including its affiliates, it is primarily engaged in the generation, transmission, and or distribution of electric energy for sale and its total electric output for the preceding fiscal year did not exceed 4 million megawatt hours.

Courts have interpreted the RFA to require a regulatory flexibility analysis only when small entities will be subject to the requirements of the rule. See *Michigan v. EPA*, 213 F.3d 663, 668-69 (D.C. Cir., 2000), *cert. den.* 121 S.Ct. 225, 149 L.Ed.2d 135 (2001).

The CAIR final rule and this proposed rule would not establish requirements applicable to small entities. Instead, it would require States to develop, adopt, and submit SIP revisions that would achieve the necessary SO<sub>2</sub> and NO<sub>x</sub> emissions reductions, and would leave to the States the task of determining how to obtain those reductions, including which entities to regulate. Moreover, because affected States would have discretion to choose the sources to regulate and how much emissions reductions each selected source would

have to achieve, EPA could not predict the effect of the rule on small entities. Although not required by the RFA, the Agency has conducted a small business analysis for the CAIR program inclusive of the New Jersey and Delaware proposal.

Overall, about 445 MW of total small entity capacity, or 1.0 percent of total small entity capacity in the CAIR region, is projected to be uneconomic to maintain under the CAIR relative to the base case. In practice, units projected to be uneconomic to maintain may be "mothballed," retired, or kept in service to ensure transmission reliability in certain parts of the grid. Our IPM modeling is unable to distinguish between these potential outcomes.

The EPA modeling identified 264 small power-generating entities within the entire CAIR region based upon the definition of small entity outlined above. The EPA excluded from this analysis 189 small entities that were not projected to have at least one unit with a generating capacity of 25 MW or great operating in the base case. Thus, we found that 75 small entities may potentially be affected by the CAIR program. Of these 75 small entities, 28

may experience compliance costs in excess of 1 percent of revenues in 2010, and 46 may in 2015, based on the Agency's assumptions of how the affected States implement control measures to meet their emissions budgets as set forth in this rulemaking. Potentially affected small entities experiencing compliance costs in excess of 1 percent of revenues have some potential for significant impact resulting from implementation of the CAIR. However, it is the Agency's position that because none of the affected entities currently operate in a competitive market environment, they should be able to pass the costs of complying with the CAIR on to rate-payers. Moreover, the decision to include only units greater than 25 MW in size exempts 185 small entities that would otherwise be potentially affected by the CAIR.

Two other points should be considered when evaluating the impact of the CAIR program (inclusive of the New Jersey and Delaware proposal), specifically, and cap and trade programs more generally, on small entities. First, under the CAIR program, the cap-and-trade program is designed such that States determine how NO<sub>x</sub> allowances

are to be allocated across units. A State that wishes to mitigate the impact of the rule on small entities might choose to allocate NO<sub>x</sub> allowances in a manner that is favorable to small entities. Finally, the use of cap and trade in general will limit impacts on small entities relative to a less flexible command-and-control program.

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

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4)(UMRA), establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, 2 U.S.C. 1532, EPA generally must prepare a written statement, including a cost-benefit analysis, for any proposed or final rule that “includes any Federal mandate that may result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more \* \* \* in any one year.” A “Federal mandate” is defined under section 421(6), 2 U.S.C. 658(6), to include a “Federal intergovernmental mandate” and a “Federal private sector mandate.” A “Federal intergovernmental mandate,” in turn, is defined to include a regulation that “would impose an enforceable duty upon State, Local, or Tribal governments,” section 421(5)(A)(i), 2 U.S.C. 658(5)(A)(i), except for, among other things, a duty that is “a condition of Federal assistance,” section 421(5)(A)(i)(I). A “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector,” with certain exceptions, section 421(7)(A), 2 U.S.C. 658(7)(A).

Before promulgating an EPA rule for which a written statement is needed under section 202 of the UMRA, section 205, 2 U.S.C. 1535, of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule.

The EPA prepared a written statement for the CAIR final inclusive of this proposal consistent with the requirements of section 202 of the UMRA. Furthermore, as EPA stated in the rule, EPA is not directly establishing any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments. Thus, EPA is not obligated to develop under section 203 of the UMRA a small government agency plan. Furthermore, in a manner consistent with the intergovernmental consultation

provisions of section 204 of the UMRA, EPA carried out consultations with the governmental entities affected by this rule.

For several reasons, however, EPA is not reaching a final conclusion as to the applicability of the requirements of UMRA to this rulemaking action. First, it is questionable whether a requirement to submit a SIP revision would constitute a Federal mandate in any case. The obligation for a State to revise its SIP that arises out of section 110(a) of the CAA is not legally enforceable by a court of law, and at most is a condition for continued receipt of highway funds. Therefore, it is possible to view an action requiring such a submittal as not creating any enforceable duty within the meaning of section 421(5)(9a)(I) of UMRA (2 U.S.C. 658 (a)(I)). Even if it did, the duty could be viewed as falling within the exception for a condition of Federal assistance under section 421(5)(a)(i)(I) of UMRA (2 U.S.C. 658(5)(a)(i)(I)).

As noted earlier, however, notwithstanding these issues, EPA prepared the statement that would be required by UMRA if its statutory provisions applied for the CAIR final rule and this proposal. The EPA also consulted with governmental entities as would be required by UMRA. Consequently, it is not necessary for EPA to reach a conclusion as to the applicability of the UMRA requirements.

The EPA conducted an analysis of the economic impacts anticipated from the CAIR program inclusive of the New Jersey and Delaware proposal for government-owned entities. The modeling conducted using the IPM projects that about 340 MW of municipality-owned capacity (about 0.4 percent of all subdivision, State and municipality capacity in the CAIR region) would be uneconomic to maintain under the CAIR program, beyond what is projected in the base case. In practice, however, the units projected to be uneconomic to maintain may be “mothballed,” retired, or kept in service to ensure transmission reliability in certain parts of the grid. For the most part, these units are small and infrequently used generating units that are dispersed throughout the CAIR region.

The EPA modeling identified 265 State or municipally-owned entities, as well as subdivisions, within the entire CAIR region. The EPA excluded from the analysis government-owned entities that were not projected to have at least one unit with generating capacity of 25 MW or greater in the base case. Thus, we excluded 184 entities from the

analysis. We found that 81 government entities will be potentially affected by the CAIR. Of the 81 government entities, 20 may experience compliance costs in excess of 1 percent of revenues in 2010, and 39 may in 2015, based on our assumptions of how the affected States implement control measures to meet their emissions budgets as set forth in this rulemaking.

Government entities projected to experience compliance costs in excess of 1 percent of revenues have some potential for significant impact resulting from implementation of the CAIR. However, as noted above, it is EPA’s position that because these government entities can pass on their costs of compliance to rate-payers, they will not be significantly impacted. Furthermore, the decision to include only units greater than 25 MW in size exempts 179 government entities that would otherwise be potentially affected by the CAIR program.

The above points aside, potentially adverse impacts of the CAIR program on State and municipality-owned entities could be limited by the fact that the cap and trade program is designed such that States determine how NO<sub>x</sub> allowances are to be allocated across units. A State that wishes to mitigate the impact of the rule on State or municipality-owned entities might choose to allocate NO<sub>x</sub> allowances in a manner that is favorable to these entities. Finally, the use of cap and trade in general will limit impacts on entities owned by small governments relative to a less flexible command-and-control program.

#### *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 proposal 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. The CAA establishes the relationship between the

Federal government and the States, and this proposed rule does not impact that relationship. Thus, Executive Order 13132 does not apply to this proposal. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the CAIR from State and local officials.

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications." The CAIR program (CAIR final and New Jersey and Delaware proposed rule) does not have "Tribal implications" as specified in Executive Order 13175.

The CAIR program addresses transport of pollution that are precursors for ozone and PM<sub>2.5</sub>. The CAA provides for States and Tribes to develop plans to regulate emissions of air pollutants within their jurisdictions. The regulations clarify the statutory obligations of States and Tribes that develop plans to implement this rule. The Tribal Authority Rule (TAR) give Tribes the opportunity to develop and implement CAA programs, but it leaves to the discretion of the Tribe whether to develop these programs and which programs, or appropriate elements of a program, the Tribe will adopt.

The CAIR program does not have Tribal implications as defined by Executive Order 13175. It does not have a substantial direct effect on one or more Indian Tribes, because no Tribe has implemented a federally enforceable air quality management program under the CAA at this time. Furthermore, the CAIR program does not affect the relationship or distribution of power and responsibilities between the Federal government and Indian Tribes. The CAA and the TAR establish the relationship of the Federal government and Tribes in developing plans to attain the NAAQS, and this rule does nothing to modify that relationship. Because the CAIR program does not have Tribal implications, Executive Order 13175 does not apply.

If one assumes a Tribe is implementing a Tribal Implementation Plan, today's proposal could have implications for that Tribe, but it would not impose substantial direct costs upon the Tribe, nor preempt Tribal law. As

provided above, EPA has estimated that the total annual private costs for the CAIR program inclusive of the New Jersey and Delaware proposal for the CAIR region as implemented by State, Local, and Tribal governments is approximately \$2.4 billion in 2010 and \$3.6 billion in 2015 (1999 dollars). There are currently very few emissions sources in Indian country that could be affected by the CAIR program and the percentage of Tribal land that will be impacted is very small. For Tribes that choose to regulate sources in Indian country, the costs would be attributed to inspecting regulated facilities and enforcing adopted regulations.

Although Executive Order 13175 does not apply to this proposal, EPA consulted with Tribal officials in developing the CAIR program. The EPA has encouraged Tribal input at an early stage. Also, EPA held periodic meetings with the States and the Tribes during the technical development of the CAIR program. Three meetings were held with the Crow Tribe, where the Tribe expressed concerns about potential impacts of the CAIR on their coal mine operations. The addition of Delaware and New Jersey to the CAIR program does not have any bearing upon the concerns expressed by the Tribes. In addition, EPA held three calls with Tribal environmental professionals to address concerns specific to the Tribes. These discussions have given EPA valuable information about Tribal concerns regarding the development of the CAIR program. The EPA has provided briefings for Tribal representatives and the newly formed National Tribal Air Association (NTAA), and other national Tribal forums. Input from Tribal representatives has been taken into consideration in development of the CAIR program.

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

Executive Order 13045, "Protection of Children from Environmental Health and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, Section 5-501 of the Order directs the Agency to evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably

feasible alternatives considered by the Agency.

The CAIR program inclusive of the New Jersey and Delaware proposal is not subject to the Executive Order, because it does not involve decisions on environmental health or safety risks that may disproportionately affect children. The EPA believes that the emissions reductions from the strategies in this rule will further improve air quality and will further improve children's health.

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

Executive Order 13211 (66 FR 28355, May 22, 2001) provides that agencies shall prepare and submit to the Administrator of the Office of Regulatory Affairs, OMB, a Statement of Energy Effects for certain actions identified as "significant energy actions." Section 4(b) of Executive Order 13211 defines "significant energy actions" as any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of final rulemaking, and notices of final rulemaking (1) (i) a significant regulatory action under Executive Order 12866 or any successor order, and (ii) likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) designated by the Administrator of the Office of Information and Regulatory Affairs as a "significant energy action." The CAIR program (the CAIR final and the New Jersey and Delaware proposal) is a significant regulatory action under Executive Order 12866, and the CAIR program may have a significant adverse effect on the supply, distribution, or use of energy.

If States choose to obtain the emissions reductions required by the CAIR final and this proposed rule by regulating EGUs, EPA projects that approximately 5.3 GWs of coal-fired generation may be removed from operation by 2010. In practice, however, the units projected to be uneconomic to maintain may be "mothballed," retired, or kept in service to ensure transmission reliability in certain parts of the grid. For the most part, these units are small and infrequently used generating units that are dispersed throughout the CAIR region. Less conservative assumptions regarding natural gas prices or electricity demand would create a greater incentive to keep these units operational. The EPA projects that the average annual electricity price will increase by less than 2.7 percent in the

CAIR region for the CAIR program. The EPA does not believe that the CAIR final and this proposed rule will have any other impacts that exceed the significance criteria.

The EPA believes that a number of features of today's rulemaking serve to reduce its impact on energy supply. First, the optional trading program provides considerable flexibility to the power sector and enables industry to comply with the emission reduction requirements in the most cost-effective manner, thus minimizing overall costs and the ultimate impact on energy supply. The ability to use banked allowances from the existing title IV SO<sub>2</sub> Trading Program and the NO<sub>x</sub> SIP Call Trading Program also provide additional flexibility. Second, the CAIR program caps are set in two phases and provide adequate time for EGUs to install pollution controls. For more details concerning energy impacts, see the Regulatory Impact Analysis for the Final Clean Air Interstate Rule (March 2005).

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

Section 12(d) of the National Technology Transfer Advancement Act (NTTAA) of 1995 (Pub. L. 104-113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory and procurement 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, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The CAIR final and this proposed rule would require all sources that participate in the trading program under part 96 to meet the applicable monitoring requirements of part 75. Part 75 already incorporates a number of voluntary consensus standards. Consistent with the Agency's

Performance Based Measurement System (PBMS), part 75 sets forth performance criteria that allow the use of alternative methods to the ones set forth in Part 75. The PBMS approach is intended to be more flexible and cost effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. At this time, EPA is not recommending any revisions to part 75; however, EPA periodically revises the test procedures set forth in Part 75. When EPA revises the test procedures set forth in Part 75 in the future, EPA will address the use of any new voluntary consensus standards that are equivalent. Currently, even if a test procedure is not set forth in part 75, EPA is not precluding the use of any method, whether it constitutes a voluntary consensus standard or not, as long as it meets the performance criteria specified; however, any alternative methods must be approved through the petition process under section 75.66 before they are used under part 75.

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

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires Federal agencies to consider the impact of programs, policies, and activities on minority populations and low-income populations. According to EPA guidance,<sup>14</sup> agencies are to assess whether minority or low-income populations face risks or a rate of exposure to hazards that are significant and that "appreciably exceed or is likely to appreciably exceed the risk or rate to the general population or to the appropriate comparison group." (EPA, 1998)

In accordance with Executive Order 12898, the Agency has considered whether the CAIR program inclusive of

<sup>14</sup> U.S. Environmental Protection Agency, 1998. Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses. Office of Federal Activities, Washington, DC, April, 1998.

the New Jersey and Delaware proposed rule may have disproportionate negative impacts on minority or low income populations. The Agency expects the CAIR program to lead to reductions in air pollution and exposures generally. For this reason, negative impacts to these sub-populations that appreciably exceed similar impacts to the general population are not expected.

#### *K. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a "major rule" as defined by 5 U.S.C. 804(2).

#### **List of Subjects**

##### *40 CFR Part 51*

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

##### *40 CFR Part 96*

Environmental protection, Administrative practice and procedure, Air pollution control, Nitrogen oxides, Reporting and recordkeeping requirements.

Dated: March 10, 2005.

**Stephen L Johnson,**  
*Acting Administrator.*

[FR Doc. 05-5520 Filed 5-11-05; 8:45 am]

**BILLING CODE 6560-50-P**