ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 98

[FRL- **xx-x-xxxx**]

**Federal Implementation Plans to Reduce the Regional Transport of Ozone**

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

**ACTION**: Notice of Proposed Rulemaking (NPR).

**SUMMARY**: In accordance with the Clean Air Act (CAA), EPA is proposing Federal implementation plans (FIPs) that may be needed if any State fails to revise its State implementation plan (SIP) to comply with the nitrogen oxides ($NO_x$) SIP call just promulgated by EPA. The $NO_x$ SIP call includes emission budgets which are designed to eliminate specified amounts of emissions of $NO_x$--one of the precursors to ozone (smog) pollution--for the purpose of reducing $NO_x$ and ozone transport across State boundaries in the eastern half of the United States. This notice supplements the shorter notice of proposed rulemaking for the FIPs appearing separately in the Federal Register.

Ozone has long been recognized, in both clinical and epidemiological research, to affect public health. There is a wide range of ozone-induced health effects, including decreased lung function (primarily in children active outdoors), increased respiratory symptoms (particularly in highly sensitive individuals), increased hospital admissions

and emergency room visits for respiratory causes (among children and adults with pre-existing respiratory disease such as asthma), increased inflammation of the lung, and possible long-term damage to the lungs.

Today's action to propose FIPs includes proposed rule language for certain stationary source categories and the related cost analyses. The FIP requirements for stationary sources include use of a Federal $NO_x$ Budget Trading Program proposed in conjunction with a separate notice of proposed rulemaking concerning petitions under section 126 of the CAA. The FIP proposal is intended to achieve the $NO_x$ emissions reductions required by the $NO_x$ SIP call rulemaking in the 23 jurisdictions, a portion of whose emissions are found to significantly contribute to nonattainment of the ozone national ambient air quality standards (NAAQS), or interfere with maintenance of the NAAQS, in downwind States. That final rule explains EPA's basis for determining significant contribution to downwind nonattainment or maintenance problems.

For large boilers and turbines, EPA proposes to promulgate a Federal $NO_x$ Budget Trading Program to achieve emissions decreases in a cost-effective manner. The proposed trading program will allow the owners of boilers and turbines the flexibility to develop their own compliance

approach in order to achieve the needed ozone season emissions reductions. The proposed FIP also includes regulations to decrease ozone season $NO_x$ emissions from large stationary internal combustion engines and cement manufacturing. The FIP would require emissions decreases at affected sources by May 1, 2003. These reductions are projected to be sufficient to achieve the emissions levels in the statewide $NO_x$ emissions budgets established in the $NO_x$ SIP call rule.

If a State adopts and submits to EPA an approvable SIP revision in response to the $NO_x$ SIP call by September 1999, EPA would not promulgate this Federal program for that State at that time. However, if a State fails to respond to the $NO_x$ SIP call by adopting and submiting to EPA a complete revised SIP by September 1999, EPA intends to take final rulemaking action on the FIP immediately thereafter. In addition, if a State submits a SIP that EPA does not find approvable, EPA intends to promulgate a FIP concurrently with finalization of its disapproval of the SIP.

**DATES**: Information on the comment period and hearing for the FIP proposal appears in the shorter notice of proposed rulemaking for the FIPs appearing separately in the Federal Register.

**ADDRESSES**: Documents relevant to this matter are available

for inspection at the Air and Radiation Docket and Information Center (6102), Attention: Docket No. A-98-12, U.S. Environmental Protection Agency, 401 M Street SW, Room M-1500, Washington, DC 20460, telephone (202) 260-7548, between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays. A reasonable fee may be charged for copying. Comments and data may also be submitted electronically by following the instructions under SUPPLEMENTARY INFORMATION of this document. No Confidential Business Information (CBI) should be submitted through e-mail.

**FOR FURTHER INFORMATION CONTACT**: General questions concerning today's action should be addressed to Doug Grano, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, MD-15, Research Triangle Park, NC 27711, telephone (919) 541-3292. Please refer to SUPPLEMENTARY INFORMATION below for a list of contacts for specific subjects described in today's action.

**SUPPLEMENTARY INFORMATION**:

Technical Analyses

The Agency will ensure that all comments and technical analyses received on this proposal notice are made publicly available in the docket to this rulemaking.

Availability of Related Information

The official record for this rulemaking, as well as the public version, has been established under docket number A-98-12 (including comments and data submitted electronically as described below). A public version of this record, including printed, paper versions of electronic comments, which does not include any information claimed as CBI, is available for inspection from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The official rulemaking record is located at the address in “ADDRESSES” at the beginning of this document. A copy of today’s FIP proposal notice is available at http://www.epa.gov/ttn/oarpg under "recent actions" and "actions sorted by CAA title" (under title I).

Electronic comments can be sent directly to EPA at: A-and-R-Docket@epamail.epa.gov. Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disks in WordPerfect in 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number A-98-12. Electronic comments on this proposed rule may be filed online at many Federal Depository Libraries.

The EPA has conducted a separate rulemaking action that contains actions and information related to this NPR,

"Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," (see proposals at 62 FR 60318, November 7, 1997; 63 FR 25902, May 11, 1998, and final rule just issued). This rulemaking action is referred to as the $NO_x$ SIP call. Documents related to the $NO_x$ SIP call rulemaking, including the notice of final rulemaking, are available for inspection in Docket No. A-96-56 at the address and times given above. In addition, the $NO_x$ SIP call rulemaking and associated documents are located at http://www.epa.gov/ttn/oarpg/otagsip.html. The rulemaking docket for the $NO_x$ SIP call contains information and analyses that are relied upon in today's proposal on the $NO_x$ FIPs. Therefore, EPA is including by reference the entire $NO_x$ SIP call record for purposes of the $NO_x$ FIPs proposed rulemaking. Although EPA is including by reference the entire $NO_x$ SIP call docket, the only portions that form the basis for the FIP rulemaking are the portions that address feasibility and cost effectiveness of control measures and the projection of emissions reductions that various control measures would achieve.

The EPA is now conducting a separate rulemaking action that contains actions and information related to this NPR,

"Finding of Significant Contribution and Rulemaking on Section 126 Petitions for Purposes of Reducing Interstate Ozone Transport," (see advanced notice of proposed rulemaking at 63 FR 24058, April 30, 1998, and the proposal notice in a separate Federal Register). This rulemaking action is hereafter referred to as the section 126 rulemaking. Documents related to the section 126 rulemaking, including the proposed rulemaking notice, are available for inspection in Docket No. A-97-43 at the address and times given above. A copy of the section 126 proposal notice is available at http://www.epa.gov/ttn/oarpg under "recent actions" and "actions sorted by CAA title" (under title I).

Additional information relevant to this NPR concerning the Ozone Transport Assessment Group (OTAG) is available on the Agency's Office of Air Quality Planning and Standards' (OAQPS) Technology Transfer Network (TTN) via the web at http://www.epa.gov/ttn/. If assistance is needed in accessing the system, call the help desk at (919) 541-5384 in Research Triangle Park, NC. Documents related to OTAG can be downloaded directly from OTAG's webpage at http://www.epa.gov/ttn/otag. The OTAG's technical data are located at http://www.iceis.mcnc.org/OTAGDC.

For Additional Information

For legal questions, please contact Amey Marrella, United States Environmental Protection Agency, Office of General Counsel, 401 M Street SW, MC-2344, Washington, DC, 20460, telephone (202) 260-7987. For questions concerning the economic analyses, please contact Scott Mathias, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, MD-15, Research Triangle Park, NC 27711, telephone (919) 541-5310. For questions concerning the trading program, please contact Kevin Culligan, Office of Atmospheric Programs, Acid Rain Division, MC-6201J, 401 M Street SW, Washington, DC 20460, telephone (202) 564-9172. For questions concerning non-electric utility generating units, please contact Doug Grano, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, MD-15, Research Triangle Park, NC 27711, telephone (919) 541-3292.

Outline

## I. Summary

In accordance with the CAA, EPA today proposes FIPs that may be needed if any State fails to revise its SIP to comply with the $NO_x$ SIP call just promulgated by EPA. The $NO_x$ SIP call final rulemaking notice and support material in that docket should be reviewed for background information relevant to this FIP action. The $NO_x$ SIP call includes emission budgets which are designed to eliminate specified amounts of emissions of $NO_x$--one of the precursors to ozone (smog) pollution--for the purpose of reducing $NO_x$ and ozone transport across State boundaries in the eastern half of the United States.

Today's action is a proposed FIP under section 110(c)

intending to meet requirements imposed by the $NO_x$ SIP call final rule under section 110(a)(2)(D) and section 110(k)(5) for the 1-hour ozone NAAQS, coupled with a requirement under section 110(a)(1) for submission of SIP provisions meeting the requirements of section 110(a)(2)(D) for the 8-hour ozone NAAQS. In the $NO_x$ SIP call, EPA has found that emissions from 23 jurisdictions contribute significantly to ozone nonattainment problems downwind and has required those jurisdictions to submit SIP provisions that eliminate those emissions through any combination of control measures. If EPA finds that a State has not submitted the required plan revision, EPA is required to promulgate a FIP in accordance with section 110(c).

Ozone has long been recognized, in both clinical and epidemiological research, to affect public health. There is a wide range of ozone-induced health effects, including decreased lung function (primarily in children active outdoors), increased respiratory symptoms (particularly in highly sensitive individuals), increased hospital admissions and emergency room visits for respiratory causes (among children and adults with pre-existing respiratory disease such as asthma), increased inflammation of the lung, and possible long-term damage to the lungs.

Today’s action to propose FIPs includes proposed rule language establishing the emissions requirements for certain stationary source categories and the cost analyses

supporting the proposal. The FIP requirements for stationary sources include use of a Federal $NO_x$ Budget Trading Program proposed in a separate Federal Register concerning petitions under section 126 of the CAA. The FIP proposal is intended to achieve the $NO_x$ emissions reductions required by the $NO_x$ SIP call rulemaking in the 23 jurisdictions, a portion of whose emissions are found to significantly contribute to nonattainment of the ozone NAAQS, or interfere with maintenance of the NAAQS, in downwind States. The $NO_x$ SIP call final rule explains EPA's basis for determining significant contribution to downwind nonattainment or maintenance problems. Specifically, the 23 jurisdictions with sources whose emissions have been found to make a significant contribution to downwind nonattainment for both the 1-hour and 8-hour NAAQS and interfere with maintenance of the 8-hour NAAQS, and are, therefore, the subject of this FIP proposal, are:

Alabama
Connecticut
Delaware
District of Columbia
Georgia
Illinois
Indiana
Kentucky
Maryland
Massachusetts
Michigan
Missouri
New Jersey
New York
North Carolina
Ohio
Pennsylvania

Rhode Island
South Carolina
Tennessee
Virginia
West Virginia
Wisconsin.

For large boilers and turbines, EPA proposes to promulgate a Federal $NO_x$ Budget Trading Program, proposed in a separate Federal Register concerning petitions under section 126 of the CAA, to achieve emissions decreases in a very cost-effective manner. The proposed trading program will allow the owners of boilers and turbines the flexibility to develop their own compliance approach in order to achieve the needed ozone season emissions reductions. The FIP proposal also includes regulations to decrease ozone season $NO_x$ emissions from stationary internal combustion engines and cement manufacturing. These emissions reductions requirements are to be achieved by May 1, 2003.

In order to meet the requirements of section 110(c), this notice proposes a FIP for each of the 23 jurisdictions required by the $NO_x$ SIP call to reduce emissions of $NO_x$. The proposed FIP requirements for each of the 23 jurisdictions are identical. Thus, the term “FIP” or “FIPs” as used in this notice refers to one set of requirements that is proposed for each of 23 jurisdictions. Final rulemaking on the proposed FIPs may address only one State or may address several of the 23 jurisdictions, depending on

how the 23 jurisdictions respond to the $NO_x$ SIP call.

The FIP rulemaking does not invite comments on issues covered in the $NO_x$ SIP call, including sections II, EPA's Analytical Approach; III, Determination of Budgets; IV, Air Quality Assessment; and V, $NO_x$ Control Implementation and Budget Achievement Dates, except for the portions of those sections that address the feasibility and cost effectiveness of control measures and the projections of the emissions reductions that various control measures would achieve. The reader is referred to the $NO_x$ SIP call for explanation of the issues.

If a State adopts and submits to EPA an approvable SIP revision in response to the $NO_x$ SIP call by September 1999, EPA would not promulgate this Federal program for that State at that time. However, if a State fails to respond to the $NO_x$ SIP call by adopting and submitting to EPA a complete revised SIP by September 1999, EPA intends to take final rulemaking action on the FIP immediately thereafter. In addition, if a State submits a SIP that EPA does not find approvable, EPA intends to promulgate a FIP concurrently with finalization of its disapproval of the SIP. For more information on the rationale for and requirements of the $NO_x$ SIP call final rule, see the final rulemaking notice as well as the proposal notices and support documents contained in the docket for that rule and section II, Background, of this notice.

Today's notice provides background information in section II, covering relevant portions of the CAA and the $NO_x$ SIP call final rule. Section III explains EPA's duty to develop the FIPs, the timing of the FIP process, and how the FIPs interface with sanction provisions in the CAA, as well as with EPA's "transitional areas" policy under the new 8-hour ozone standard. In section IV, EPA describes how the rule requirements contained in the FIP proposal are designed to meet the emissions decreases required by the $NO_x$ SIP call. Emissions reporting requirements are described in section V. The Federal $NO_x$ Budget Trading Program is addressed in section VI. Regulations covering stationary sources not in the trading program are outlined in section VII. Section VIII covers several administrative requirements, including the Regulatory Impact Analyses associated with the FIP. Finally, the rule contains proposed regulations which are designed to meet the emissions decreases required by the $NO_x$ SIP call.

## II. Background

### A. History

For almost 30 years, Congress has focused major efforts on curbing ground-level (tropospheric) ozone. In 1990, Congress amended the CAA to better address, among other things, continued nonattainment of the 1-hour ozone NAAQS, the requirements that would apply if EPA revised the 1-hour

standard, and transport of air pollutants across State boundaries.

The 1990 Amendments reflect general awareness by Congress that ozone is a regional, and not merely a local, problem. Ozone and its precursors may be transported long distances across State lines to combine with ozone and precursors downwind, thereby worsening the ozone problems downwind. This transport phenomenon is a major reason for the persistence of the ozone problem, notwithstanding the imposition of numerous controls, both Federal and State, across the country.

Section 110(a)(2)(D) provides one of the most important tools for addressing the problem of transport. This provision, which applies by its terms to all SIPs for each pollutant covered by a NAAQS, and for all areas regardless of their attainment designation, provides that a SIP must contain provisions prohibiting its sources from contributing significantly to nonattainment problems in or interfering with maintenance by downwind States. Section 110(k)(5) authorizes EPA to find that a SIP is substantially inadequate to meet any CAA requirement. It further authorizes EPA to require a State with such a SIP to submit, within a specified period, any SIP revision necessary to correct the inadequacy.

The CAA further addresses interstate transport of pollution in section 126, which Congress clarified in 1990.

Subparagraph (b) of that provision authorizes each State (or political subdivision) to petition EPA for a finding that emissions from "any major source or group of stationary sources" in an upwind State contribute significantly to nonattainment in, or interfere with maintenance by, the downwind State.

In addition, in 1995, the Environmental Council of States (ECOS) and EPA organized the OTAG. The OTAG was a partnership among EPA, the 37 easternmost States and the District of Columbia, industry representatives and environmental groups. This effort created an opportunity for the development of an Eastern United States ozone strategy to address transport and to assist in attainment of the 1-hour ambient ozone standard. The EPA believes that the OTAG process has been invaluable in demonstrating the types of regional ozone precursor reductions that are needed to enable areas in the Eastern United States to attain and maintain the ambient air quality standards for ozone.

Shortly after OTAG began its work, EPA began to indicate that it intended to issue a $NO_x$ SIP call to require States to implement the reductions necessary to address the ozone transport problem. On January 10, 1997 (62 FR 1420), EPA published a Notice of Intent that articulated this goal and indicated that before taking final action, EPA would carefully consider the technical work and any recommendations of OTAG. The EPA just completed final

rulemaking on the $NO_x$ SIP call and established emissions budgets for $NO_x$ that each of the identified States must meet through enforceable SIP measures. The $NO_x$ SIP call is summarized later in section II.E of this notice.

**B. Ozone Impacts**

Ground-level ozone, the main harmful ingredient in smog, is produced in complex chemical reactions when its precursors, volatile organic compounds (VOC) and $NO_x$, react in the presence of sunlight. The chemical reactions that create ozone take place while the pollutants are being blown through the air by the wind, which means that ozone can be more severe many miles away from the source of emissions than it is at the source. At ground level, ozone can cause a variety of ill effects to human health, crops and trees. Specifically, ground-level ozone induces the following health effects:

- Decreased lung function, primarily in children active outdoors,
- Increased respiratory symptoms, particularly in highly sensitive individuals,
- Hospital admissions and emergency room visits for respiratory causes, among children and adults with pre-existing respiratory disease such as asthma,
- Inflammation of the lung,
- Possible long-term damage to the lungs or even death.

Detailed information on the benefits and costs of changes in $NO_x$ emissions is contained in the Regulatory Impact Analysis (RIA) contained in the NOx SIP call docket, which also serves as the RIA for the FIP proposal. In addition to helping attain public health standards for ozone, decreases in emissions of $NO_x$ are helpful in reducing acid deposition, greenhouse gases, nitrates in drinking water, stratospheric ozone depletion, excessive nitrogen loadings to aquatic and terrestrial ecosystems, and ambient concentrations of nitrogen dioxide, particulate matter and toxics (see "Nitrogen Oxides: Impacts on Public Health and the Environment," EPA-452/R-97-002, August 1997.)

**C. New Ozone NAAQS**

On July 18, 1997 (62 FR 38856), EPA issued its final action to revise the NAAQS for ozone. The EPA's decision to revise the standard was based on the Agency's review of the available scientific evidence linking exposures to ambient ozone to adverse health and welfare effects at levels allowed by the pre-existing 1-hour ozone standards. The 1-hour primary standard was replaced by an 8-hour standard at a level of 0.08 parts per million (ppm), with a form based on the 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration measured at each monitor within an area. The new primary standard will provide increased protection to the public, especially children and other at-risk populations, against a wide range

of ozone-induced health effects. The EPA retained the applicability of the 1-hour NAAQS for existing nonattainment areas until such time as EPA determines that an area has attained the 1-hour NAAQS (40 CFR 50.9). The new standard results in more areas and larger areas with monitoring data indicating nonattainment. Thus, it will be even more critical to implement regional control strategies which will eliminate specified amounts of emissions of $NO_x$ which would otherwise be transported across State boundaries into areas in violation of the new standard.

**D. Section 126 Petitions**

On August 14-15, 1997, EPA received eight section 126 petitions submitted individually by eight Northeastern States. The petitioning States are Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont. Each petition requests EPA to make a finding that sources in certain categories of stationary sources in upwind States emit or would emit $NO_x$ in violation of the prohibition in section 110(a)(2)(D)(i) on emissions that contribute significantly to nonattainment, or interfere with maintenance, in the petitioning State. All of the petitions seek a finding and relief under the 1-hour standard; Massachusetts, Pennsylvania, and Vermont also seek a finding and relief with respect to the 8-hour standard.

The petitions vary as to the type and geographic

location of the source categories identified as significant contributors. All the petitions identified source categories; some petitions also provided lists of sources within the specified categories. The source categories include electric generating plants, fossil fuel-fired boilers and other indirect heat exchangers, and certain other related stationary sources that emit $NO_x$. All the petitions target sources in the Midwest; some also target sources in the South and Northeast.

In a separate rulemaking, EPA is proposing to make a technical determination that certain major stationary source categories identified in the section 126 petitions are significantly contributing to nonattainment in, or interfering with maintenance by, one or more petitioning State (hereafter referred to as a positive or affirmative technical determination). On the basis of the proposed affirmative technical determination, EPA is proposing that the petitions naming these sources and source categories be granted or denied, at certain later dates, pending certain actions by the States and EPA regarding State submittals and FIPs in response to the final $NO_x$ SIP call. The schedule and conditions under which the applicable final findings on the petitions would be triggered are discussed in that proposal notice. For information on the interaction of the section 126, FIP, and $NO_x$ SIP call actions, see the section 126 proposal notice, section II.A.2.

## E. $NO_x$ SIP Call

The EPA proposed the $NO_x$ SIP call on November 7, 1997 (62 FR 60318), issued a supplemental notice on May 11, 1998 (63 FR 25902), and just issued a final rulemaking. In that action, EPA determined that $NO_x$ emissions from sources and emitting activities in 23 jurisdictions significantly contribute to nonattainment of the 1-hour and 8-hour ozone NAAQS, or interfere with maintenance of the 8-hour NAAQS, in one or more downwind States throughout the Eastern United States. The EPA based these proposals on data generated by OTAG, public comments, and other relevant information.

The $NO_x$ SIP call requires that the 23 jurisdictions adopt and submit by September 24, 1999, remedial SIP revisions. The 23 jurisdictions are: Alabama, Connecticut, Delaware, District of Columbia, Georgia, Illinois, Indiana, Kentucky, Massachusetts, Maryland, Michigan, Missouri, North Carolina, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin. The SIP revisions must contain measures that will assure that sources in the State reduce their $NO_x$ emissions sufficiently to eliminate the amounts of $NO_x$ emissions that contribute significantly to nonattainment, or that interfere with maintenance, downwind. By eliminating these amounts of $NO_x$ emissions, the control measures will assure that the remaining $NO_x$ emissions will not exceed the level that EPA identifies in the $NO_x$ SIP call as the State's

$NO_x$ emissions budget. After prohibiting the significant amounts of $NO_x$, the remaining amounts emitted by sources in the covered States will not "significantly contribute to nonattainment, or interfere with maintenance by," a downwind State, under section 110(a)(2)(D)(i)(I).

For purposes of the FIP rulemaking, the reader is encouraged to review the $NO_x$ SIP call final rulemaking, which is organized as follows: section II.C, Weight-of-Evidence Determination of Covered States, describes how EPA determined which States include sources that emit $NO_x$ in amounts of concern (the "covered" States); sections II.D, Cost Effectiveness of Emission Reductions; II.E, Comparison of Upwind and Downwind Costs; and III, Determination of Budgets, describe how EPA determined the significant amounts of emissions and the resulting statewide emissions budgets for the States identified above. Section IV, Air Quality Assessment, discusses air quality analyses conducted by EPA to help confirm the decisions and requirements set forth in this rulemaking. Section V, $NO_x$ Control Implementation and Budget Achievement Dates, primarily discusses the dates by which (1) the States must submit SIP revisions in response to today's action, (2) the sources must implement the required SIP controls, and (3) the States must achieve the required budget levels. Section VI, SIP Criteria and Emissions Reporting Requirements, describes the SIP requirements themselves.

The SIP requirements permit each State to determine what measures to adopt to prohibit the significant amounts and, hence, meet the necessary emissions budget. Consistent with OTAG's recommendations to achieve $NO_x$ emissions decreases primarily from large stationary sources in a trading program, EPA encourages States to consider electric generating and non-electric generating boiler and turbine controls under a cap-and-trade program as a highly cost-effective strategy. The recommended cap-and-trade program is described in more detail in section VII, $NO_x$ Trading program. Section VIII, Interaction with Title IV $NO_x$ Rule, describes the relationship between this rulemaking and the title IV $NO_x$ rule. The remaining parts of the $NO_x$ SIP call include section IX, Nonozone Benefits of $NO_x$ Reductions, and section X, Administrative Requirements.

## III. FIP Process

### A. Legal Framework

The Administrator is required to promulgate a FIP within 2 years of: (1) finding that a State has failed to make a required submittal, (2) finding that a submittal received does not satisfy the minimum completeness criteria established under section 110(k)(1)(A), or (3) disapproving a SIP submittal in whole or in part. Section 110(c)(1) mandates EPA promulgation of a FIP unless EPA has approved, within the 2-year time period, a SIP revision that corrects

the deficiency identified by EPA in its $NO_x$ SIP call.

The l990 Amendments make explicit a principle that was implicit in the preceding Act--that a FIP corrects or fills a void in a deficient State plan. The amended CAA defines a FIP as a plan to fill a gap or "correct all or a portion of an **inadequacy** in a State implementation plan." (42 U.S.C. 7602(y) (Supp. II. l990) (emphasis added).) When forced by a State planning delinquency to promulgate a FIP, EPA has wide-ranging authority under section ll0(c) to fill the gaps left by the State failure. The EPA's authority to prescribe FIP measures is of three types. First, EPA may promulgate any measure which it is expressly permitted to issue under any circumstances pursuant to pre-existing independent statutory authority--for example, explicit provisions of title II. That is, EPA may promulgate any measure which it has authority to issue in a non-FIP context, without reliance on section 110(c). Second, EPA may invoke section 110(c)'s general FIP authority and act to cure a planning inadequacy in any way not clearly prohibited by statute. Third, under section 110(c), the courts have held that EPA may exercise all authority that the State may exercise under the Act.

The second type of authority, EPA's general authority under section 110(c), is essentially remedial, and EPA has broad power under that section to cure a defective State plan. Thus, in promulgating a FIP, EPA may exercise its

own, independent regulatory authority under the CAA in any way not clearly prohibited by an explicit provision of the Act. When EPA has promulgated a FIP, courts have not required explicit authority for specific measures: "We are inclined to construe Congress' broad grant of power to the EPA as including all enforcement devices reasonably necessary to the achievement and maintenance of the goals established by the legislation." (South Terminal Corp. v. EPA, 504 F.2d 646, 669. (1st Cir. 1974)). See also City of Santa Rosa v. EPA, 534 F.2d 150, 153-154 (9th Cir. 1976) (upholding the Administrator's authority to promulgate a FIP imposing gas-rationing in Los Angeles on a massive scale). "The authority to regulate pollution carries with it the power to do so in a manner reasonably calculated to reach that end." Id. at 155.

In addition, when a State's failure to discharge the primary responsibility to protect its air quality compels EPA to assume this task, the powers of the defaulting State accrue to EPA. As the Ninth Circuit recently held, when EPA acts in place of the State pursuant to a FIP under section ll0(c), EPA "stands in the shoes of the defaulting State, and all of the rights and duties that would otherwise fall to the State accrue instead to EPA," Central Arizona Water Conservation District v. EPA, 990 F.2d 1531, at 1541 9th Cir. 1993). The First Circuit, in an early FIP case, agreed:

> the Administrator must promulgate promptly regulations setting forth `an implementation plan for a State should the State itself fail to propose a satisfactory one. The statutory scheme would be unworkable were it read as giving to EPA when promulgating an implementation plan for a State, less than those necessary measures allowed by Congress to a State to accomplish Federal clean air goals. We do not adopt any such crippling interpretation.

South Terminal Corporation v. EPA, 504 F.2d 668 (1st Cir. 1974).

**B. Timing of FIP Action**

As described in the $NO_x$ SIP call final rulemaking and summarized in section II.E of this notice, EPA is requiring specific States to develop, adopt and submit revisions to their SIPs by September 1999. As part of the $NO_x$ SIP call rulemaking, EPA received a few comments supporting the position that EPA should propose FIPs at the same time as taking final action on the $NO_x$ SIP call rulemaking. The Agency also received a few comments suggesting it was more appropriate to delay the FIP proposal until some time after the States have had time to respond to the $NO_x$ SIP call rulemaking. As described in that final notice, EPA agreed with certain commenters that the timing of the FIP proposal should allow for promulgation in time to require $NO_x$ emissions reductions by sources at about the same time, both in States that comply with the $NO_x$ SIP call and States that do not. Under a delayed FIP proposal approach, industry in the non-complying States might experience an unfair competitive advantage over industry in States which elected

to reduce their $NO_x$ emissions and reduce interstate transport of ozone and ozone precursors in an earlier timeframe, consistent with the requirements of the $NO_x$ SIP call rulemaking. More importantly, delaying the FIP proposal would delay reductions of ozone pollution and $NO_x$ emissions in the non-complying States which would unnecessarily jeopardize public health. Therefore, proposing a FIP today will ensure that EPA can promulgate a FIP soon after the time the SIPs are due, in the event of any State's failure to comply.

The EPA views seriously its responsibility to address the issue of regional transport of ozone and ozone precursor emissions. Decreases in $NO_x$ emissions are needed in the States named in the $NO_x$ SIP call rulemaking to enable the downwind States to develop and implement plans to achieve the NAAQS in order to achieve clean air for their citizens. Thus, although the CAA allows EPA up to 2 years to promulgate a FIP after a finding of a State's failure to submit a complete, approvable plan, EPA intends to expedite the FIP promulgation to help assure that the downwind States realize the air quality benefits of regional $NO_x$ reductions as soon as practicable. This is consistent with Congress' intent that attainment occur in these downwind nonattainment areas "as expeditiously as practicable" (sections 181(a), 172(a)). Therefore, EPA is proposing FIPs today in conjunction with final action on the $NO_x$ SIP call.

Furthermore, EPA intends to make a finding and promulgate a FIP immediately after the SIP submittal due date for each upwind State that fails to submit a complete SIP that meets the terms of the $NO_x$ SIP call. The EPA also intends to approve expeditiously SIP revisions that meet the $NO_x$ SIP call rulemaking requirements. For States that fail to make the required submittal or fail to submit a complete SIP revision response, EPA would promulgate a FIP as described in the above section. Where the SIP is complete but EPA disapproves it, EPA would also promulgate a FIP. The EPA intends to move quickly to promulgate a FIP where necessary.

In order to meet the requirements of section 110(c), this notice proposes a FIP for each of the 23 jurisdictions required by the $NO_x$ SIP call to reduce emissions of $NO_x$. The proposed FIP requirements for each of the 23 jurisdiction are identical. Final rulemaking on the proposed FIPs may address only one State or may address several of the 23 jurisdictions, depending on how the 23 jurisdictions respond to the $NO_x$ SIP call.

**C. FIP Control Measures**

In contrast to the SIP process--where selection and implementation of control measures is the primary responsibility of the State--in the case of a FIP, it is EPA’s responsibility to select the control measures for each source sector and assure compliance with those measures.

Thus, while the FIP would be designed by EPA to achieve the same total statewide emissions decrease as that described in the $NO_x$ SIP call, the specific control measures assigned in the FIP could be different from what a State might choose.

In selecting the specific control measures for the FIP, EPA used the same method used in the $NO_x$ SIP call for calculating the required emissions reductions. As in the $NO_x$ SIP call, the FIP rules proposed in this notice require the same amount of emissions reduction from the source categories to which highly cost-effective measures can be applied. See the discussion in section III, Determination of Budgets, of the $NO_x$ SIP call. The EPA is including by reference the technical basis and supporting rationale for EPA's conclusions as to the highly cost-effective strategy developed for the $NO_x$ SIP call budgets.

**D. Authority to Order the State to Implement Specific Measures**

The EPA's authority to promulgate measures in a FIP which require the State to enact legislation or expend State funds may be somewhat limited under prior case law. In general, EPA may require the State to implement FIP measures, including requirements for legislation and expenditure of funds, if the measures affect the pollution-creating activities of the State. However, in Brown v. EPA, 521 F.2d 827 (9th Cir. 1975), vacated on other grounds, 431

U.S. 99 (1977) (Brown), the court held that section 113 of the CAA did not provide statutory authority for EPA to bring an enforcement action against the State (or other municipal authority) for failing to implement a motor vehicle inspection and maintenance program. The court reasoned that the CAA authorized Federal enforcement if the State did not implement regulations to control its own pollution creating activities, "but not against a State that chooses not to govern polluters as the Administrator directs." Id. at 832. In a subsequent decision, the court rejected EPA's argument that ownership of the roads and highways made the State responsible for the pollution created from their use (Brown v. EPA, 566 F.2d 665 (9th Cir. 1977), vacated on other grounds, 431 U.S. 99 (1977)).

The same court, however, held in City of Santa Rosa v. EPA, 534 F.2d 150 (9th Cir. 1976), that the EPA may require gas rationing under its FIP authority. The court found that the Administrator of EPA has authority to limit gas delivery to retail outlets and may require the citizens of the State to curtail their gas usage. The FIP measure in City of Santa Rosa did not require the State to implement the gas rationing scheme, and the court distinguished Brown because the petitioners had challenged the effect of gas rationing, not EPA's authority to order rationing. Id. at 155.

The Brown holding was similarly distinguished and limited by the Sixth Circuit Court of Appeals in United

States v. Ohio Department of Highway Safety, 635 F.2d 1195 (6th Cir. 1980). The court upheld EPA's enforcement against the State under section 113 of the CAA for registering motor vehicles which did not pass an inspection and maintenance program promulgated by EPA. The court held that the State was interfering with EPA's implementation of a measure that had been promulgated under its Federal authority. See also Pennsylvania v. EPA, 500 F.2d 246 (3d Cir. 1974).

The court in Brown did not reach constitutional issues raised under the commerce clause. It is unclear, but unlikely, that requiring the State to implement FIP measures which mandate legislation and expenditure of funds would be struck down under the commerce clause. See Garcia v. San Antonio Metropolitan Transit Authority, 469 U.S. 528 (1985) (holding that the Federal government may require States to pay minimum wages and overtime pursuant to the Fair Labor Standards Act). However, even assuming that the commerce clause poses no such obstacle, nothing in the enactment of the 1990 Amendments casts doubt on the continued vitality of the Brown holdings with respect to the statutory limits on EPA's FIP authority. Thus, the constraints discussed above still apply. In short, EPA may require the State to legislate or expend funds that affect the State's own pollution creating activities. Although EPA may not require the State to legislate or spend money to govern the pollution creating activities of others, EPA may promulgate

and implement such measures directly in a FIP, and the State may not interfere with EPA's enforcement of those measures.

While EPA may not have the authority to require States to enact legislation or expend State funds to implement control measures, beyond those required to reduce emissions generated by the State itself, EPA believes that title V of the CAA requires a State to include all applicable requirements, including requirements of a FIP, in the title V permit. The regulations governing State permitting under title V define an “applicable requirement,” which must be reflected in a title V operating permit, as including “[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the CAA that implements the relevant requirements of the Act, including any revisions to the plan promulgated in part 52 of this chapter” (40 CFR 70.2). Since today’s proposed rule is being promulgated under title I (i.e., under section 110), both the requirements of the Federal trading program (part 97) and the rules governing stationary internal combustion engines and cement plants (part 98) are applicable requirements under 40 CFR 70.2 and must be reflected in the title V operating permit of any sources affected by this rulemaking that are required to have such a permit.

**E. Section 105 Grants**

The EPA provides annual funding to States under section 105 of the CAA to carry out Act-related programs. Where a State fails to adequately respond to the $NO_x$ SIP call, EPA must adopt and implement a FIP. In such cases, the Agency will withhold all or a portion of the State's section 105 allotment to the extent necessary to implement the FIP provisions promulgated by EPA and in accordance with the procedural requirements of section 105.

**F. Findings of Failure**

As noted in section III.A. of this notice, EPA is required to promulgate a FIP after finding that a State has failed to adequately respond to a $NO_x$ SIP call. If EPA makes such a finding, it would be a final Agency action but would not be subject to the notice-and-comment requirements of the Administrative Procedure Act (APA), 5 U.S.C. 553(b). The EPA believes that because of the limited time provided to make findings of failure to submit and findings of incompleteness regarding SIP submissions or elements of SIP submission requirements, Congress did not intend such findings to be subject to notice-and-comment rulemaking. However, to the extent such findings are subject to notice-and-comment rulemaking, EPA intends, consistent with past practice (for example, 61 FR 36294), to invoke the good cause exception pursuant to the APA, 5 U.S.C. 553(b)(3)(B). Notice and comment are unnecessary because no significant EPA judgment is involved in making a nonsubstantive finding

of failure to submit elements of SIP submissions required by the CAA. Furthermore, providing notice and comment would be impracticable because of the limited time provided under the statute for making such determinations. Finally, notice and comment would be contrary to the public interest because it would divert agency resources from the critical substantive review of complete SIPs. See 58 FR 51270, 51272, (October 1, 1993); 59 FR 39832, 39853 (August 4, 1994).

**G. Sanctions**

If a State fails to submit the required SIP provisions, the CAA provides for EPA to issue a finding of State failure under section 179(a). (EPA is using the phrase "failure to submit" to cover both the situation where a State makes no submission and the situation where the State makes a submission that EPA finds is incomplete in accordance with section 110(k)(1)(B) and 40 CFR part 51, Appendix V.) Such a finding starts an 18-month sanctions clock; if the State fails to make the required submittal which EPA determines is complete within that period, one of two sanctions will apply. If 6 months after the sanction is imposed, the State still has not made a complete submittal, the second sanction will apply. The two sanctions are: a requirement that new or modified sources subject to a section 173 new source review program obtain reductions in existing emissions in a 2:1 ratio to offset their new emissions and withholding of certain Federal highway funds, (section 179(b)). These

requirements are in addition to EPA's FIP obligation described above.

**H. Transitional Areas**

As described in the November 7, 1997 $NO_x$ SIP call proposal notice, the Presidential Directive includes goals of early attainment of the health-based ozone standards while minimizing planning and regulatory burdens for State and local governments and businesses where air quality problems are regional in nature. To achieve these goals, the implementation plan includes a policy for areas that attain the 1-hour standard but not the new 8-hour standard in which EPA will follow a flexible implementation approach that encourages cleaner air sooner, responds to the fact that ozone is a regional as well as local problem, and eliminates unnecessary planning and regulatory burdens for State and local governments.

A primary element of the policy will be the establishment under section 172(a)(1) of the CAA of a special "transitional" classification both for areas that participate in the $NO_x$ regional strategy proposed in this rulemaking and for those that opt to submit early plans addressing the new 8-hour standard. See the $NO_x$ SIP call NPR (November 7, 1997) and the Presidential Directive for detailed discussions about the transitional classification. On August 18, 1998, EPA issued proposed guidance for public comment to explain the implementation policy in further

detail and to provide details on SIP requirements for transitional areas (Federal Register Notice of Availability published August 24, 1998, 63 FR 45060). The EPA expects to finalize the August 1998 draft guidance, as well as guidance for areas other than transitional, by December 1998.[1]

It should be noted, however, that under EPA's intended approach, promulgation by EPA of a FIP under this rulemaking would not allow the area to be eligible for the transitional area classification. Such areas in States that fail to comply with the $NO_x$ SIP call would not be eligible for the transitional classification.

## IV. Emissions Decreases to Meet the $NO_x$ SIP Call

### A. General Approach for Calculating Budgets

In the final $NO_x$ SIP call, EPA determined that $NO_x$ emissions from sources in the 23 jurisdictions contribute significantly to nonattainment problems and interfere with maintenance in downwind areas in the OTAG region. Accordingly, EPA established a $NO_x$ budget for each of these jurisdictions. The budgets reflect the aggregate amount of $NO_x$ emissions that will remain when the States eliminate the specific amount of $NO_x$ emissions that contribute significantly to nonattainment problems and interfere with maintenance in downwind areas. These budgets cover all $NO_x$

[1]For a complete listing of the guidance and other actions EPA plans to issue to implement the revised ozone and PM NAAQS, see a table on EPA's implementation website: http://ttnwww.rtpnc.epa.gov/implement/actions.htm.

emissions from a State, including area, nonroad, stationary, and mobile sources. More detail on the State budgets can be found in the $NO_x$ SIP call final rulemaking notice and support material. The FIP is designed to achieve the same State emissions budgets on the same schedule as that established in the $NO_x$ SIP call final rule, with the same highly cost-effective measures forming the basis for the budgets. Therefore, the FIP rules use the same source cutoff levels, categories, and control levels as were used to develop the final $NO_x$ SIP call budgets and require that the emissions decreases be implemented by May 1, 2003. Because this FIP rulemaking does not establish the State emissions budgets, but instead proposes the way EPA would ensure that the budgets are achieved, EPA is not requesting comment on establishment of the budgets or the schedule for implementing the emissions reductions. For the FIP rulemaking, EPA invites comment specifically on the feasibility and cost effectiveness of control measures and the projection of emissions reductions that various control measures would achieve as outlined in the FIP and described in detail in the $NO_x$ SIP call rulemaking. The EPA summarizes below the conclusions from the relevant parts of the $NO_x$ SIP call rulemaking.

**B. Electric Generating Units (EGUs)**

The control level for this category of $NO_x$ sources was determined by applying a uniform $NO_x$ emission rate of 0.15

lb/mmBtu regionwide for EGUs greater than 25 MWe or 250 mmBtu/hr. The cost effectiveness for each control level was determined using the Integrated Planning Model. Details regarding the methodologies used can be found in the $NO_x$ SIP call rulemaking and support materials.

**C. Industrial Boilers and Turbines**

The EPA examined the category of large (greater than 250 mmBtu/hr) industrial boilers and turbines to determine the most emissions reductions from controls that would cost less than $2,000 per ton on average. For this source category, EPA determined that controls are available that would achieve a 60 percent reduction from uncontrolled levels at average costs less than $2,000 per ton. For those sources that participate in the trading program, EPA believes that the costs would be further reduced. Details regarding the methodologies used can be found in the $NO_x$ SIP call rulemaking and support materials.

**D. Stationary Internal Combustion Engines**

The EPA examined the category of large (emitting more than one ton per day) stationary internal combustion engines to determine the most emissions reductions from controls that would cost less than $2,000 per ton on average. For this source category, EPA determined that controls are available that would achieve a 90 percent reduction from uncontrolled levels at average costs less than $2,000 per

ton. Details regarding the methodologies used can be found in the $NO_x$ SIP call rulemaking and support materials.

**E. Cement Manufacturing**

The EPA examined the category of large (emitting more than one ton per day) cement manufacturing plants to determine the most emissions reductions from controls that would cost less than $2,000 per ton on average. For this source category, EPA determined that controls are available at all types of cement manufacturing facilities that would achieve a 30 percent reduction from uncontrolled levels at average costs less than $2,000 per ton. Details regarding the methodologies used can be found in the $NO_x$ SIP call rulemaking and support materials.

**F. Other Point Source Categories**

As described in the $NO_x$ SIP call rulemaking and support materials, EPA reviewed the emissions and control cost information for several non-EGU source categories. The EPA's analysis determined that, for large sources (emitting more than one ton per day), the following non-EGU source categories appeared to have controls available only at cost-effectiveness levels above $2,000 per ton: glass manufacturing, process heaters, and commercial and industrial incinerators. Therefore, EPA did not calculate emissions budget decreases nor is the Agency proposing FIP rules for these source categories.

For other non-EGU source categories, $NO_x$ controls may be available for large sources at costs less than $2,000 per ton. However, as described in the $NO_x$ SIP call rulemaking and support materials, each of these source categories include a relatively small number of sources with a small amount of emissions. The EPA believes that controlling these sources for purposes of achieving State budgets would be inefficient because of the relatively high administrative costs of developing regulations for these source categories. As described in the $NO_x$ SIP call rulemaking, there are many sources in the emissions inventory which lack information EPA would need to determine potentially applicable control techniques (63 FR 25909). This group of sources is diverse and does not fit within the categories set out by EPA, but total emissions are low for this group. Therefore, for purposes of today's action, EPA is not proposing FIP rules to decrease emissions for these sources.

In addition, EPA determined in the $NO_x$ SIP call final rulemaking that municipal waste combustors should not be required to reduce emissions beyond that already required by the maximum available control technology (MACT) rules for $NO_x$ required under sections 111 and 129 of the CAA. Therefore, EPA is not proposing additional emissions decreases and FIP rules for municipal waste combustors.

Thus, for non-EGU sources the FIP proposes rules only for boilers and turbines (60 percent decrease), stationary

internal combustion engines (90 percent decrease), and cement plants (30 percent decrease). The EPA's analysis determined that these source categories have controls available at cost-effectiveness levels below an average of $2,000 per ton and total emissions from each of these source categories are high relative to other non-EGU source categories.

**G. Area, Mobile, and Nonroad Sources**

As described in the $NO_x$ SIP call final rulemaking, EPA did not identify additional controls beyond those in the 2007 baseline case for the area, mobile and nonroad source categories at average costs less than $2,000 per ton. Therefore, EPA did not calculate additional emissions budget decreases nor propose FIP rules for these source categories.

**H. Projection that Proposed FIP Measures Would Achieve State-by-State Emissions Budgets**

Consistent with 40 CFR 51.121(b) and (g), the control measures described above and contained in the FIP rules are designed to achieve the State emissions budgets established in the $NO_x$ SIP call. The tables below result from application of the FIP measures and demonstrate compliance of the FIP with the $NO_x$ SIP call budgets.

**1. EGU**

As described in section III.B.3. of the $NO_x$ SIP call, the EGU budget component is calculated based on applying a

0.15 lb/mmBtu emission limit to sources greater than 25 MWe. This limit is applied uniformly across all States that are covered by this $NO_x$ SIP call. The higher of 1995 or 1996 heat input, grown to 2007, is used to calculate the budget component. The final percent reduction from the 2007 base case to the budget is shown in Table III-4 of the $NO_x$ SIP call, which is reproduced below.

**Table III-4. Final NOx Budget Components and Percent Reduction for Electricity Generating Units (tons/season)**

| State | Final Base | Final Budget | Percent Reduction |
|---|---|---|---|
| Alabama | 76,900 | 29,051 | 62% |
| Connecticut | 5,600 | 2,583 | 54% |
| Delaware | 5,800 | 3,523 | 39% |
| District of Columbia | 0* | 207 | NA |
| Georgia | 86,500 | 30,255 | 65% |
| Illinois | 119,300 | 32,045 | 73% |
| Indiana | 136,800 | 49,020 | 64% |
| Kentucky | 107,800 | 36,753 | 66% |
| Maryland | 32,600 | 14,807 | 55% |
| Massachusetts | 16,500 | 15,033 | 9% |
| Michigan | 86,600 | 28,165 | 67% |
| Missouri | 82,100 | 23,923 | 71% |
| New Jersey | 18,400 | 10,863 | 41% |
| New York | 39,200 | 30,273 | 23% |
| North Carolina | 84,800 | 31,394 | 63% |
| Ohio | 163,100 | 48,468 | 70% |
| Pennsylvania | 123,100 | 52,000 | 58% |
| Rhode Island | 1,100 | 1,118 | -2% |
| South Carolina | 36,300 | 16,290 | 55% |
| Tennessee | 70,900 | 25,386 | 64% |
| Virginia | 40,900 | 18,258 | 55% |
| West Virginia | 115,500 | 26,439 | 77% |
| Wisconsin | 52,000 | 17,972 | 65% |
| Total | 1,501,800 | 543,825 | 64% |

* The base case for DC is actually projected to be 30 tons per season. The base case values in this table are rounded to the nearest 100 tons.

**2. Non-EGU Point Sources**

As described in the $NO_x$ SIP call, the following emissions decreases from uncontrolled levels were assumed:

i. Non-EGU boilers and turbines--60 percent decrease.

ii. Stationary internal combustion engines--90 percent decrease.

iii. Cement manufacturing plants--30 percent decrease.

These controls result in an overall reduction in emissions from all large non-EGU point sources of almost 40 percent (187,800 tons per season decrease). These resulting budget components are shown in Table III-6 in the $NO_x$ SIP call, and are reproduced below.

**Table III-6. Final NOx Budget Components and Percent Reduction for Non-Electricity Generating Point Sources (tons/season)**

| | Final Base | Final Budget | Percent Reduction |
|---|---|---|---|
| Alabama | 49,781 | 37,696 | 24% |
| Connecticut | 5,273 | 5,056 | 4% |
| Delaware | 1,781 | 1,645 | 8% |
| District of Columbia | 310 | 292 | 6% |
| Georgia | 33,939 | 27,026 | 20% |
| Illinois | 55,721 | 42,011 | 25% |
| Indiana | 71,270 | 44,881 | 37% |
| Kentucky | 18,956 | 14,705 | 22% |
| Maryland | 10,982 | 7,593 | 31% |
| Massachusetts | 9,943 | 9,763 | 2% |
| Michigan | 79,034 | 48,627 | 38% |
| Missouri | 13,433 | 11,054 | 18% |
| New Jersey | 22,228 | 19,804 | 11% |
| New York | 25,791 | 24,128 | 6% |
| North Carolina | 34,027 | 25,984 | 24% |
| Ohio | 53,241 | 35,145 | 34% |

| | | | |
|---|---|---|---|
| Pennsylvania | 73,748 | 65,510 | 11% |
| Rhode Island | 327 | 327 | 0% |
| South Carolina | 34,740 | 25,469 | 27% |
| Tennessee | 60,004 | 35,568 | 41% |
| Virginia | 39,765 | 27,076 | 32% |
| West Virginia | 40,192 | 31,286 | 22% |
| Wisconsin | 22,796 | 17,973 | 21% |
| Total | 757,281 | 558,618 | 26% |

### 3. Mobile and Area Sources

As discussed in the $NO_x$ SIP call rulemaking, EPA's highway budget components are based on projected highway vehicle emissions in 2007 from a base year of 1990, assuming implementation of those measures incorporated in existing SIPs, such as inspection and maintenance programs and reformulated fuels, measures already implemented federally, and those additional measures expected to be implemented federally by 2007. Similarly, as discussed in the $NO_x$ SIP call rulemaking, EPA's nonroad mobile source budget components are based on projected nonroad mobile source emissions in 2007 from a base year of 1990 and assume implementation of those measures incorporated in existing SIPs, measures already implemented federally, and those additional measures expected to be implemented federally. For area sources, no highly cost-effective control measures were identified in the $NO_x$ SIP call rulemaking. Thus, EPA is not proposing any FIP measures in these categories. These resulting budget components are shown in Tables III-7,8 & 9 in the $NO_x$ SIP call NFR, and are reproduced below:

**Table III-7. Final $NO_x$ Budget Components for Stationary Area Sources (tons/season)**

| | Proposed Budget | Final Budget | Percent Change |
|---|---|---|---|
| Alabama | 25,229 | 25,225 | 0% |
| Connecticut | 4,587 | 4,588 | 0% |
| Delaware | 1,035 | 963 | -7% |
| District of Columbia | 741 | 741 | 0% |
| Georgia | 11,901 | 11,902 | 0% |
| Illinois | 7,270 | 7,822 | 8% |
| Indiana | 25,545 | 25,544 | 0% |
| Kentucky | 38,801 | 38,773 | 0% |
| Maryland | 8,123 | 4,105 | -49% |
| Massachusetts | 10,297 | 10,090 | -2% |
| Michigan | 28,126 | 28,128 | 0% |
| Missouri | 6,626 | 6,603 | 0% |
| New Jersey | 11,388 | 11,098 | -3% |
| New York | 15,585 | 15,587 | 0% |
| North Carolina | 9,193 | 10,651 | 16% |
| Ohio | 19,446 | 19,425 | 0% |
| Pennsylvania | 17,103 | 17,103 | 0% |
| Rhode Island | 420 | 420 | 0% |
| South Carolina | 8,420 | 8,359 | -1% |
| Tennessee | 11,991 | 11,990 | 0% |
| Virginia | 25,261 | 18,622 | -26% |
| West Virginia | 4,901 | 4,790 | -2% |
| Wisconsin | 10,361 | 8,160 | -21% |
| Total | 302,350 | 290,689 | -4% |

**Table III-8. Final $NO_x$ Budget Components and Percent Reduction for Nonroad Sources (tons/season)**

| | Proposed Budget | Final Budget | Percent Change |
|---|---|---|---|
| Alabama | 18,727 | 16,594 | -11% |
| Connecticut | 9,581 | 9,584 | 0% |
| Delaware | 4,262 | 4,261 | 0% |
| District of Columbia | 3,582 | 3,470 | -3% |
| Georgia | 22,714 | 21,588 | -5% |
| Illinois | 56,429 | 47,035 | -17% |
| Indiana | 27,112 | 22,445 | -17% |
| Kentucky | 22,530 | 19,627 | -13% |
| Maryland | 18,062 | 17,249 | -4% |
| Massachusetts | 19,305 | 18,911 | -2% |
| Michigan | 24,245 | 23,495 | -3% |
| Missouri | 19,102 | 17,723 | -7% |
| New Jersey | 21,723 | 21,163 | -3% |
| New York | 30,018 | 29,260 | -3% |
| North Carolina | 18,898 | 17,799 | -6% |
| Ohio | 42,032 | 37,781 | -10% |
| Pennsylvania | 29,176 | 25,554 | -12% |
| Rhode Island | 2,074 | 2,073 | 0% |

| | | | |
|---|---|---|---|
| South Carolina | 12,831 | 11,903 | -7% |
| Tennessee | 47,065 | 44,567 | -5% |
| Virginia | 25,357 | 21,551 | -15% |
| West Virginia | 10,048 | 10,220 | 2% |
| Wisconsin | 15,145 | 12,965 | -14% |
| Total | 500,018 | 456,818 | -9% |

**Table III-9. Final NOx Budget Components and Percent Reduction for Highway Vehicles (tons/season)**

| | Proposed Budget | Final Budget | Percent Change |
|---|---|---|---|
| Alabama | 56,601 | 50,111 | -11% |
| Connecticut | 17,392 | 18,762 | 8% |
| Delaware | 8,449 | 8,131 | -4% |
| District of Columbia | 2,267 | 2,082 | -8% |
| Georgia | 77,660 | 86,611 | 12% |
| Illinois | 77,690 | 81,297 | 5% |
| Indiana | 66,684 | 60,694 | -9% |
| Kentucky | 46,258 | 45,841 | -1% |
| Maryland | 28,620 | 27,634 | -3% |
| Massachusetts | 23,116 | 24,371 | 5% |
| Michigan | 81,453 | 83,784 | 3% |
| Missouri | 55,056 | 55,230 | 0% |
| New Jersey | 39,376 | 34,106 | -13% |
| New York | 94,068 | 80,521 | -14% |
| North Carolina | 73,056 | 66,019 | -10% |
| Ohio | 92,549 | 99,079 | 7% |
| Pennsylvania | 73,176 | 92,280 | 26% |
| Rhode Island | 5,701 | 4,375 | -23% |
| South Carolina | 49,503 | 47,404 | -4% |
| Tennessee | 67,662 | 64,965 | -4% |
| Virginia | 79,848 | 70,212 | -12% |
| West Virginia | 21,641 | 20,185 | -7% |
| Wisconsin | 41,651 | 49,470 | 19% |
| Total | 1,179,477 | 1,173,163 | -1% |

## 4. Statewide Budgets

The statewide budgets are shown in Table III-10 of the $NO_x$ SIP call final rulemaking are reproduced below.

**Table III-10. Revised Statewide NOx Budgets (tons/season)**

| State | Base | Budget | Percent Reduction |
|---|---|---|---|
| Alabama | 218,610 | 158,677 | 27% |
| Connecticut | 43,807 | 40,573 | 7% |
| Delaware | 20,936 | 18,523 | 12% |
| District of Columbia | 6,603 | 6,792 | -3% |

| | | | |
|---|---|---|---|
| Georgia | 240,540 | 177,381 | 26% |
| Illinois | 311,174 | 210,210 | 32% |
| Indiana | 316,753 | 202,584 | 36% |
| Kentucky | 230,997 | 155,698 | 33% |
| Maryland | 92,570 | 71,388 | 23% |
| Massachusetts | 79,815 | 78,168 | 2% |
| Michigan | 301,042 | 212,199 | 30% |
| Missouri | 175,089 | 114,532 | 35% |
| New Jersey | 106,995 | 97,034 | 9% |
| New York | 190,358 | 179,769 | 6% |
| North Carolina | 213,296 | 151,847 | 29% |
| Ohio | 372,626 | 239,898 | 36% |
| Pennsylvania | 331,785 | 252,447 | 24% |
| Rhode Island | 8,295 | 8,313 | 0% |
| South Carolina | 138,706 | 109,425 | 21% |
| Tennessee | 252,426 | 182,476 | 28% |
| Virginia | 191,050 | 155,718 | 18% |
| West Virginia | 190,887 | 92,920 | 51% |
| Wisconsin | 145,391 | 106,540 | 27% |
| Total | 4,179,751 | 3,023,113 | 28% |

## V. Emissions Reporting

The EPA believes it is essential that compliance with the regional control strategy be verified. Tracking emissions is the principal mechanism to ensure compliance with the budget and to assure the downwind States and EPA that the ozone transport problem is being mitigated. The new emissions control requirements for stationary sources proposed in the FIP include requirements that the affected sources directly report emissions data to EPA. This includes data used for determining compliance with the requirements of the Federal $NO_x$ Budget Trading Program and specific reporting requirements for stationary internal combustion engines and cement manufacturing facilities. Therefore, under the FIP, EPA will already be collecting the data that can be used to determine compliance with the

emissions decreases required by the proposed FIP. For each FIP, EPA will use that data as well as other analyses in order to determine compliance with the Statewide $NO_x$ emissions budget.

## VI. Federal $NO_x$ Budget Trading Program

### A. Program Summary

#### 1. Purpose of the Federal $NO_x$ Budget Trading Program

In today's FIP notice, EPA proposes to regulate any fossil fuel-fired unit (boiler, turbine, or combined cycle) that serves a generator with a nameplate capacity greater than 25 MWe, and any fossil fuel-fired unit (boiler, turbine, or combined cycle) that has a maximum design heat input of greater than 250 mmBtu/hr, using a capped market-based program. This type of program is a proven method for achieving the highly cost-effective emissions reductions described above while providing sources compliance flexibility. (See 63 FR 25918-19, discussing OTAG's conclusions concerning advantages of market-based systems.)

The Federal $NO_x$ Budget Trading Program is proposed in a new part 97 in title 40 of the Code of Federal Regulations. The regulatory text of part 97 is proposed in the rulemaking on the section 126 action. Participation in the $NO_x$ Budget Trading Program would be mandatory for all soources covered by the finalization of this proposed FIP, except IC engines and cement kilns. It would also be mandatory for any

sources affected by a triggering of the section 126 remedy.

Because EPA is proposing to implement the Federal $NO_x$ Budget Trading Program, both if a FIP is appropriate and in response to the section 126 petitions, EPA intends to finalize part 97 in whichever of these actions is finalized first. (The EPA expects part 97 will be finalized in the section 126 rulemaking because it is on a tighter timeframe.) In finalizing part 97, EPA intends to respond to the comments it receives on both rulemaking actions regarding part 97. Therefore, commenters who have identical comments in both rulemakings may submit their comments to one docket and merely reference such comments in their submission to the other docket. However, to the extent comments on part 97 are solely related to how it would be applied through a FIP, commenters should be sure to submit such comments in the docket for this FIP NPR.

The EPA requests comment on whether it is appropriate to use a common trading program for both the FIP and the section 126 remedy, as well as for purposes of the $NO_x$ SIP call. If not, EPA requests specific comment on what should be different and why.

**2. Relationship of Trading Program Under FIP to Trading Program Under Section 126 Petitions and $NO_x$ SIP Call**

The sources that EPA is proposing to include in the Federal $NO_x$ Budget Trading Program in today's FIP are the

same sources included in the State $NO_x$ Budget Trading Program (part 96) that EPA promulgated as a model trading rule which States may elect to use in responding to the final $NO_x$ SIP call. The sources identified in this FIP are the sources for which EPA assumed emissions reductions in calculating the budgets for States in the $NO_x$ SIP call. The $NO_x$ SIP call established an emissions budget for all sources of $NO_x$ emissions in all States determined by EPA to significantly contribute to nonattainment or interfere with maintenance of the ozone NAAQS in any other jurisdiction. The FIP sets specific stationary source rules to decrease $NO_x$ emissions sufficiently to achieve the $NO_x$ SIP call budget. The section 126 proposed action, on the other hand, is limited to major sources or groups of stationary sources that are named in the section 126 petitions, and that EPA finds emit or would emit in violation of the prohibition in section 110(a)(2)(D) relative to a petitioning State. Despite this difference in the scope of the proposed section 126 action and the final $NO_x$ SIP call or proposed FIP, all 3 actions are aimed at reducing the transport of ozone by controlling emissions from sources in a given State that are found to be contributing to nonattainment or maintenance problems in another State.

The EPA believes that the State $NO_x$ Budget Trading Program--if selected by States to meet their $NO_x$ SIP call obligations--could be coordinated and integrated with a

Federal $NO_x$ Budget Trading Program promulgated in a final FIP or in a final section 126 rulemaking. Integration is possible because, as noted above, the $NO_x$ SIP call, the corresponding FIP, and the section 126 petitions all seek to mitigate the ozone transport problem by reducing emissions from upwind sources that hinder attainment or maintenance of the ozone NAAQS downwind. Further, the sources covered in the model cap-and-trade program in the $NO_x$ SIP call include a majority of the sources named by petitioning States in the section 126 action, and are identical in size and categorization to sources for which EPA proposes to issue rules in the section 126 and FIP proposed actions.

In order to be eligible to participate in a cap-and-trade program, the EPA believes that there are two principal criteria that sources must meet, as stated in the supplemental notice for the proposed $NO_x$ SIP call (62 FR 25923). The first criterion requires that sources be able to account accurately and consistently for all of their emissions to ensure the trading program goal of maintaining emissions within a cap. The second criterion for participation in a trading program is the ability to identify a responsible party for each regulated source who would be accountable for demonstrating and ensuring compliance with the program's provisions. Assuming that these criteria are met, and consistent control levels are used in setting emissions requirements for the covered

sources, EPA supports the establishment of a common trading program.

The resulting multistate trading program could include all sources in States found to be significantly contributing to nonattainment or interfering with maintenance of the ozone standard in another State. Under this common trading program, sources subject to the Federal program under the FIP or the section 126 rulemaking, and sources in States choosing to participate in the State $NO_x$ Budget Trading Program in response to the $NO_x$ SIP call, could trade with one another under a $NO_x$ cap across participating States. The EPA's analyses in conjunction with the $NO_x$ SIP call demonstrate that implementation of a single trading program with a uniform control level results in no significant changes in location of emissions reductions as compared to a non-trading scenario. Therefore, the common trading program meeting the requirements of either part 96 or part 97 will achieve the intended emissions reductions while providing flexibility and cost savings to the covered sources.

Integration of the trading programs reduces the possibility of inconsistent or conflicting deadlines or requirements, increases the potential cost savings for sources, and streamlines program administration. Inconsistency could hamper the sources' ability to plan and achieve the needed reductions as cost effectively as possible. In addition, if a State subsequently elects to

submit a SIP including a trading program after EPA has already established a Federal program under a FIP or section 126, disruptions to sources that would shift from regulation under a FIP or section 126 to regulation under a SIP would be minimized.

The sources included in the trading program for purposes of the $NO_x$ SIP call or a FIP may vary from sources included for purposes of the section 126 remedy. The EPA does not foresee this to be problematic since sources would face consistent control requirements regardless of which rulemaking includes the sources in the common trading program. That the requirements would be consistent follows from the similar nature of the rulemakings and the comparable level of control which EPA has determined to be cost effective for each source category across all three actions.

The EPA proposes, in part 97, to establish the geographic boundaries of the common trading program as those States submitting SIPs in response to the final $NO_x$ SIP call or subject to FIPs, and/or the sources in States for which EPA makes a finding for the section 126 petitions. The EPA would administer this common trading program in collaboration with affected States.

The EPA is proposing a Federal $NO_x$ Budget Trading Program as part of the FIP or section 126 remedy which mirrors, to the extent feasible, the State $NO_x$ Budget

Trading Program (set forth in part 96) which is the model trading program that is available for States to adopt in response to the $NO_x$ SIP call. While EPA is proposing to keep the programs as similar as possible, there are several differences which are more fully described below. These differences arise primarily from the need for Federal implementation of the program rather than State implementation. For example, EPA must determine the $NO_x$ allowance allocations for each unit in the Federal $NO_x$ Budget Trading Program, rather than simply provide a recommended methodology for States to use to determine allocations in the State $NO_x$ Budget Trading Program.

## B. Federal $NO_x$ Budget Trading Program

### 1. Program Overview

In part 97, EPA proposes a cap-and-trade program as a means of controlling $NO_x$ mass emissions from any fossil fuel-fired unit (boiler, turbine, or combined cycle) that serves a generator with a nameplate capacity greater than 25 MWe, and any fossil fuel-fired unit (boiler, turbine, or combined cycle) that has a maximum design heat input of greater than 250 mmBtu/hr, in a State for which a FIP is promulgated.

The EPA requests comment as to whether additional stationary sources that are not included in the core applicability of the Federal $NO_x$ Budget Trading Program, but

emit to a stack, can monitor $NO_x$ mass emissions using the protocols in part 75, and are located in a State where EPA promulgates a FIP, should be able to voluntarily opt in to the trading program. In today's notice, EPA proposes providing these individual stationary sources the opportunity to opt in to enable further cost savings from the Federal $NO_x$ Budget Trading Program. These opt-in provisions would be very similar to the opt-in provisions allowed under the model trading program in part 96 (see section VI.B.3.e of this FIP notice for further explanation).

The $NO_x$ allowances--each allowance representing a limited authorization to emit one ton of $NO_x$--would be the currency used in the trading program. A fixed number of $NO_x$ allowances would be allocated to sources for each ozone season equal to the total amount of a State's trading program budget under the FIP. The EPA has included in today's proposal several alternative methodologies that EPA could use to allocate $NO_x$ allowances to units. Appendices A and B of the section 126 rulemaking set forth the allocation for each unit based on the first 2 of the 3 proposed methodologies, explained in section VI.B.3.c.4 of this preamble. Allocations resulting from the third methodology can be found in the docket to this rulemaking.

The control period for the trading program (i.e., the period during which a source must hold sufficient $NO_x$

allowances to cover emissions) would extend from May 1 through September 30, which is the same as the control period under the $NO_x$ SIP call and the section 126 proposal. The EPA's proposed trading program is based on the application of a uniform control level to the covered universe of sources. Based on analyses done in connection with the proposed $NO_x$ SIP call (63 FR 25921) and the final $NO_x$ SIP call, EPA maintains that trading could occur across States included in a $NO_x$ Budget Trading Program without restrictions, other than the requirement to comply with emission limits under title I and title IV of the CAA, as well as any other State limitations.

Under part 97 as proposed, sources in the Federal $NO_x$ Budget Trading Program would be required to monitor and report their emissions in accordance with relevant portions of 40 CFR part 75. The EPA has promulgated revisions to part 75 that establish $NO_x$ mass monitoring requirements and provide greater flexibility to regulated sources. Consistent and accurate monitoring of emissions is necessary for accountability regarding compliance with the requirement to hold $NO_x$ allowances and to ensure that a ton of emissions attributed to one source in one State is equivalent to a ton attributed to another source in the same or another State.

Under part 97 as proposed, EPA would be responsible for all aspects of program implementation, with the exception of permitting. As further explained in section VI.B.2.c., the

State and local agencies would be the permitting authorities for the majority of $NO_x$ Budget sources with title V permits, for which the trading program requirements would be applicable requirements. If a source does not have a federally enforceable permit, the requirements of the $NO_x$ Budget Trading Program rule would be federally enforceable of its own accord.

As discussed herein, EPA proposes to make the Federal and State $NO_x$ Budget Trading Programs as similar as possible and has modeled proposed part 97 after part 96 just finalized. The EPA notes that discussion of the evolution of the $NO_x$ Budget Trading Program is set forth in the supplemental notice of the proposed $NO_x$ SIP call rule at 63 FR 25921-23 and in the final $NO_x$ SIP call rule.

**2. Elements of the Federal $NO_x$ Budget Trading Program that Are the Same as the State $NO_x$ Budget Trading Program**

Under part 97, as proposed, the following sections would be virtually identical to the corresponding sections in part 96, which sets forth the State $NO_x$ Budget Trading Program. The EPA proposes to retain and rely on the analyses and considerations undertaken in the $NO_x$ SIP call process to determine these program elements. Moreover, the provisions in part 97 would be numbered in the same sequence as the corresponding provisions in part 96, so that, for example, § 97.2 and § 96.2 or § 97.81 and § 96.81 would

address the same subject matter. The major differences between the part 97 sections listed below and their corresponding part 96 sections would be the renumbering of cross references to other regulatory provisions so that a section in part 97 would reference the appropriate section in that part, as opposed to the section in part 96. More detailed information on the rationale for the part 96 provisions themselves can be found in the preamble accompanying the proposed part 96 (63 FR 25917-43) and the final part 96.

**Subpart A--Federal $NO_x$ Budget Trading Program General Provisions**

§ 97.3 Measurements, abbreviations, and acronyms.

§ 97.5 Retired unit exemption.

§ 97.7 Computation of time.

**Subpart B--Authorized Account Representative for $NO_x$ Budget Sources**

§ 97.10 Authorization and responsibilities of the $NO_x$ authorized account representative.

§ 97.11 Alternate $NO_x$ authorized account representative.

§ 97.12 Changing the $NO_x$ authorized account representative and alternate $NO_x$ authorized account representative; changes in the owners and operators.

§ 97.13 Account certificate of representation.

§ 97.14 Objections concerning the $NO_x$ authorized account

representative.

**Subpart C--Permits**

§ 97.20 General $NO_x$ Budget permit requirements.

§ 97.21 Submission of $NO_x$ Budget permit applications.

§ 97.22 Information requirements for $NO_x$ Budget permit applications.

§ 97.23 $NO_x$ Budget permit contents.

§ 97.24 Effective date of initial $NO_x$ Budget permit.

§ 97.25 $NO_x$ Budget permit revisions.

**Subpart D--Compliance Certification**

§ 97.30 Compliance certification report.

**Subpart F--$NO_x$ Allowance Tracking System**

§ 97.50 $NO_x$ Allowance Tracking System accounts.

§ 97.51 Establishment of accounts.

§ 97.52 $NO_x$ Allowance Tracking System responsibilities of $NO_x$ authorized account representative.

§ 97.53 Recordation of $NO_x$ allowance allocations.

§ 97.54 Compliance.

§ 97.55 Banking.

§ 97.56 Account error.

§ 97.57 Closing of general accounts.

**Subpart G--$NO_x$ Allowance Transfers**

§ 97.60 Scope and submission of $NO_x$ allowance transfers.

§ 97.61 EPA recordation.

§ 97.62 Notification.

The EPA requests comment on whether any of the part 97 provisions listed above should differ substantively from the corresponding provisions in part 96. If a commenter believes substantive differences in the rules are appropriate, the commenter should describe the favored changes and explain why these changes are appropriate. The EPA is proposing these part 97 provisions for the reasons set forth both in the proposed $NO_x$ SIP call and final $NO_x$ SIP call and in order to minimize differences between the Federal and State $NO_x$ Budget Trading Programs.

**a. General Provisions.** Under part 97, EPA is proposing to use the same measurements, abbreviations, and acronyms, the same retired unit exemption, and the same provisions for computation of time as those that apply in part 96, with cross references to the appropriate sections in part 97, rather than to sections in part 96 (63 FR 25923-27).

**b. Authorized Account Representative**. The $NO_x$ Authorized Account Representative ($NO_x$ AAR) is the individual who is authorized to represent the owners and operators of each $NO_x$ budget unit at a $NO_x$ budget source in matters pertaining to the $NO_x$ Budget Trading Program. Subpart B of part 97 addresses, among other things, the process for designating and changing the $NO_x$ AAR and the responsibilities of the $NO_x$ AAR and alternate $NO_x$ AAR. These provisions are the same as those in part 96, with cross references to the appropriate

sections of part 97 (63 FR 25927).

**c. Permits.** The regulations governing State permitting under title V define an "applicable requirement," which must be reflected in a title V operating permit, as including "[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the CAA that implements the relevant requirements of the Act, including any revisions to that plan promulgated in part 52 of this chapter" (40 CFR 70.2). Since today's proposed rule is being promulgated under title I (i.e., under section 110), the requirements of this rule would be applicable requirements under § 70.2 and would be reflected in the title V operating permit of $NO_x$ budget sources required to have such a permit. The EPA believes that the majority of $NO_x$ budget sources will be required to have a title V permit. Further, all State and local air permitting authorities currently have EPA-approved title V operating permits programs. These State and local agencies would be the permitting authorities for the majority of $NO_x$ budget sources with title V permits, for which the trading program requirements would be applicable requirements. For any sources that do not have a title V permit, such a permit is not required. If a source does not have a federally enforceable permit, the requirements of the Federal $NO_x$ Budget Trading Program rule would be federally enforceable

of its own accord.

Subpart C of part 97 addresses, among other things, the administration of a permit, permit applications, permit contents, effective date, and permit revisions. These provisions are the same as those in part 96, with cross references to the appropriate sections in part 97 (63 FR 25927-29).

**d. Compliance Certification**. The $NO_x$ AAR must certify at the end of each control period that the unit was in compliance with the emissions limitation and other requirements of the Federal $NO_x$ Budget Trading Program. Proposed § 97.30 sets forth the same provisions for compliance certification reports as those in part 96, with cross references to the appropriate sections in part 97 (63 FR 25929).

**e. $NO_x$ Allowance Tracking System**. The $NO_x$ Allowance Tracking System is an automated system used to track $NO_x$ allowances held by $NO_x$ budget units under the $NO_x$ Budget Trading Program, as well as those allowances held by other organizations and individuals. Subpart F of part 97 addresses, among other things, $NO_x$ allowance tracking system accounts, the account responsibilities of the $NO_x$ AAR, the recordation of $NO_x$ allowance allocations, the compliance process, account error, and account closing. These provisions are the same as those in part 96, with cross

references to the appropriate sections in part 97 (63 FR 25933-37).

**f. Banking.** The EPA proposes to include banking as a feature in the Federal $NO_x$ Budget Trading Program for the reasons set forth in the final $NO_x$ SIP call. Proposed § 97.55 sets forth the same provisions for banking and the management of banked allowances as specified in part 96. In accordance with these provisions,$NO_x$ allowances held by units subject to the Federal $NO_x$ Budget Trading Program may be banked for future use starting in 2003 (except as noted in section VI.B.3.e.ii. of this preamble). However, as in the State $NO_x$ Budget Trading Program, the Federal $NO_x$ Budget Trading Program contains a flow control mechanism to limit the variability associated with banking. This mechanism allows unlimited banking by units subject to the Federal $NO_x$ Budget Trading Program, but discourages the "excessive" use of banked allowances by establishing a discount rate on the use of banked allowances over a certain level. Proposed § 97.55 establishes a flow control mechanism which applies a 2-for-1 discount ratio to the use of banked allowances above a certain level when the total number of banked allowances in the program exceeds 10 percent of the allowable $NO_x$ emissions for all sources covered by the Federal trading program (63 FR 25934-37).

**g. $NO_x$ Allowance Transfers.** Subpart G of part 97

addresses, among other things, submission, recordation, and notification of transfers of $NO_x$ allowances under the $NO_x$ Budget Trading Program. These provisions are the same as those in part 96, with cross references to the appropriate sections in part 97 (63 FR 25937-38).

**h. Audits**. While program audits are not explicitly required by today's rule, EPA intends to perform the same types of audits discussed concerning the proposed $NO_x$ SIP call (63 FR 25942) and the final $NO_x$ SIP call.

**3. Elements of the Federal $NO_x$ Budget Trading Program that Differ from the State $NO_x$ Budget Trading Program**

The EPA proposes that the following sections in part 97 incorporate certain differences from the corresponding sections in part 96 to provide for Federal implementation of the $NO_x$ Budget Trading Program.

**Subpart A--Federal $NO_x$ Budget Trading Program General Provisions**

§ 97.1 Purpose.

§ 97.2 Definitions.

§ 97.4 Applicability.

§ 97.6 Standard Requirements.

**Subpart D--Compliance Certification**

§ 97.31 Administrator's action on compliance certifications.

**Subpart E--$NO_x$ Allowance Allocations**

§ 97.40 Trading program budget.

§ 97.41 Timing requirements for $NO_x$ allowance allocations.

§ 97.42 $NO_x$ allowance allocations.

**Subpart H--Monitoring and Reporting**

§ 97.70 General requirements.

§ 97.71 Initial certification and recertification procedures.

§ 97.72 Out of control periods.

§ 97.73 Notifications.

§ 97.74 Recordkeeping and reporting.

§ 97.75 Petitions.

§ 97.76 Additional requirements to provide data for allocations purposes.

**Subpart I--Individual Unit Opt-Ins**

§97.80 Applicability.

§97.81 General.

§97.82 $NO_x$ authorized account representative.

§97.83 Applying for $NO_x$ Budget opt-in permit.

§97.84 Opt-in process.

§97.85 $NO_x$ Budget opt-in permit contents.

§97.86 Withdrawal from $NO_x$ Budget Trading Program.

§97.87 Change in regulatory status.

§97.88 $NO_x$ allowance allocations to opt-in units.

**a. General Provisions.** Proposed § 97.1 explains that proposed part 97 sets forth the provisions for the Federal

$NO_x$ Budget Trading Program addressing interstate transport of ozone and $NO_x$. As discussed above, this program would be activated either under section 126 or under a FIP.

For part 97, EPA is proposing to use the same definitions as those that apply in part 96, with cross references to the appropriate sections in part 97, with three exceptions. First, the definition of the term "$NO_x$ Budget Trading Program" would be altered to reflect the fact that the Federal trading program is established pursuant to part 52, as opposed to part 51.121, as is the case with the State $NO_x$ Budget Trading Program under part 96. Secondly, the definition for the term "State" would be altered to reference only those States that would be covered by any final section 126 or FIP action, and to reflect the fact that the Federal trading program would be promulgated for a State, as opposed to adopted by the State as is the case with the State $NO_x$ Budget Trading Program. Last, the term "State trading program budget" would be replaced with the term "trading program budget." For purposes of the FIP, the trading program budget would be the aggregated budget for all sources affected by the requirements to participate in the trading program in a given State under the FIP. For purposes of the section 126 action, the trading program budget would be the "126 trading program budget for the State." The term "126 trading program budget for the State" is used to clarify the fact that the budget for the Federal

$NO_x$ Budget Trading Program is not aggregated to a State level for the purposes of the section 126 action except for the allocation calculation, since the focus in the remedy is sources rather than States.

The following example illustrates the approach taken concerning the unchanged definitions: the term "$NO_x$ Budget Unit" is defined under part 97 as "a unit that is subject to the $NO_x$ Budget Trading Program emissions limitation under § 97.4 and § 97.80," while that term has the same definition under part 96 except that appropriate sections in part 96 are referenced (63 FR 25923).

The EPA proposes in part 97 that the Federal $NO_x$ Budget Trading Program under the FIP would apply to any fossil fuel-fired unit (boiler, combustion turbine, or combined cycle) that serves a generator with a nameplate capacity greater than 25 MWe, and any fossil fuel-fired unit (boiler, combustion turbine, or combined cycle) that has a maximum design heat input of greater than 250 mmBtu/hr. This applicability is identical to the core group applicability in the model trading program for SIPs.

In the $NO_x$ SIP call, EPA offered States the option of allowing units with a very low federally enforceable permit limitation (i.e., 25 tons per season) to be exempt from the trading program, even though they were above the applicability threshold (63 FR 25926). The EPA proposes in part 97 to include this provision in the Federal $NO_x$ Budget

Trading Program and seeks comment on the appropriateness of such inclusion.

Under the Federal $NO_x$ Budget Trading Program, the $NO_x$ budget units and their owners, operators, and $NO_x$ AARs must meet certain standard requirements that incorporate the full range of program requirements by referencing other sections of the Federal $NO_x$ Budget Trading Program rule. These provisions are the same as the related provisions in part 96, with cross references to the appropriate sections of part 97, except that the Administrator, rather than the permitting authority, would allocate $NO_x$ allowances under the Federal $NO_x$ Budget Trading Program. This reflects the fact that the Federal $NO_x$ Budget Trading Program would be federally run, rather than run by the State as under the $NO_x$ SIP call.

**b. Compliance Certification**. Proposed § 97.31 is the same as § 96.31 except that the Administrator has the sole responsibility for reviewing and auditing compliance certifications and other submissions under the Federal $NO_x$ Budget Trading Program. This reflects the fact that the part 97 program would be federally run rather than run by the State as under the $NO_x$ SIP call. The EPA is proposing these part 97 provisions for the reasons set forth both in the proposed $NO_x$ SIP call (63 FR 25929) and the final $NO_x$ SIP call and in order to minimize differences between the Federal and State $NO_x$ Budget Trading Programs.

**c. Aggregate $NO_x$ Emissions Levels and Allowance Allocations.** This section discusses the calculation of State-specific aggregate emission levels and the methodology and timing for issuance of $NO_x$ budget unit allocations.

**1. State-by-State Emissions Levels**. The EPA calculated the State specific aggregate emission levels that would remain after the application of reasonable and highly cost-effective $NO_x$ controls to upwind sources which contribute significantly to nonattainment or maintenance problems in downwind States. The level of control that was determined to be reasonable and cost effective is identical to the level used in the $NO_x$ SIP call for purposes of calculating the State budgets. The determination of reasonable and highly cost-effective $NO_x$ controls for the source categories covered by the trading program is discussed more fully in the $NO_x$ SIP call.

For reasons explained in the final $NO_x$ SIP call, EPA has calculated each State's summer season large EGU emissions level using a specific $NO_x$ emission rate and the projected summer season utilization of the year 2007. Specifically, EPA calculated each State's large EGU $NO_x$ emissions level by multiplying: each State's summer activity level in mmBtu (EPA selected the higher of each State's overall 1995 or 1996 summer utilization), by each State's projected growth between 1996 and 2007 (using the

IPM model), by a $NO_x$ rate of 0.15 lb/mmBtu. The resulting figure, in lbs, was divided by 2000 (lbs per ton) to determine tons.

The EPA incorporated growth in industrial activity when determining the large EGU emissions level, and thus accommodates new sources into the FIP. Specifically, EPA projected each State's change in utilization from current levels to the year 2007 and set an emissions level based on that future year's utilization. This was the approach taken in the final $NO_x$ SIP call in determining various State emissions levels.

For reasons also explained in the final $NO_x$ SIP call, EPA is proposing to calculate each State's summer season large non-EGU emissions level by reducing each State's uncontrolled non-EGU $NO_x$ emissions levels (in tons) by 60 percent and assuming growth through the year 2007. Appendix C of the section 126 rulemaking includes the State aggregate emission levels for both EGUs and non-EGUs.

**2. Development of State trading program budget**. Proposed § 97.40 provides that the trading program budget in each State would equal the sum of the aggregate emission levels for large EGUs and large non-EGUs in each State, calculated as discussed in section VI.B.3.c.1 of this preamble and listed in Appendix C of the section 126 rulemaking. In the Federal $NO_x$ Budget Trading Program being proposed under the part 97, $NO_x$ "emission limitations" take the form of $NO_x$ "allowance

allocations" and are assigned based on the aggregate emission levels for the subcategories in the trading program. The approach to issuing allocations under part 97 is similar to that under the $NO_x$ SIP call, with the exception that under § 96.40, the State permitting authority, rather than the Administrator, determines, through the SIP, the total amount of allowable $NO_x$ emissions apportioned to $NO_x$ budget units.

**3. Timing Provisions.** Proposed § 97.41 sets forth the provisions for when the Administrator will issue allocations of $NO_x$ allowances to $NO_x$ budget units. Under the Federal trading program, the Administrator (rather than the State permitting authority) determines the $NO_x$ allowance allocations and records them in the $NO_x$ Allowance Tracking System. Thus, proposed § 97.41 does not provide, or set deadlines, for the permitting authority's submission of allocations to EPA. However, as discussed in the final $NO_x$ SIP call, EPA believes it is important to issue the allocations at least a couple years into the future to provide some predictability for sources in their control planning and to build confidence in the market. Therefore, under part 97, the Administrator will issue $NO_x$ allowances in EPA's $NO_x$ Allowance Tracking System (NATS) by April 1 of every year for the control period that is 3 years later. For example, EPA would issue the allocations for the 2003 control period by April 1, 2000 and EPA would issue the

allocations for the 2004 control period by April 1, 2001; thus, the allocations are always known 3 years in advance. These provisions are consistent with the minimum timing requirements specified in the final $NO_x$ SIP call rulemaking.

As stated in the previous paragraph, EPA will issue allocations in the NATS on an annual basis 3 years prior to the relevant control period. However, EPA proposes to use the same allocations for the first 3 years of the program (based upon one of the proposed methodologies described below), unless a State replaces the FIP with its own allocations in an approved SIP. The EPA proposes constant allocations for the first three control periods to provide more consistency and certainty and to build market confidence during the start-up phase of the program. Therefore, while the Agency will not record the allocations in unit accounts until April 1 of the year 3 years preceding each relevant control period, the allocations for 2004 and 2005 will be the same as the allocations for the 2003 control period. However, if a State, as part of an approved SIP, submits allocations for the 2004 control period to EPA prior to April 1, 2001, or for the 2005 control period prior to April 1, 2002, the State's allocations will replace the allocations EPA planned to issue for the relevant control season. By issuing allocations into accounts 1 year at a time, EPA is providing States the ability to replace a FIP with an approved SIP while still ensuring that sources

receive allocations at least 3 years prior to the relevant control season.

After the initial 3 year period, EPA may update its allocations on an annual basis 3 years prior to the relevant control season. As discussed in the final $NO_x$ SIP call, updating allocations on an annual basis (3 years ahead) is intended to allow the allocation system to accommodate changes in market conditions.

**4. $NO_x$ Allowance Allocation Methodology**. The EPA proposes that part 97 include the methodology that the Administrator will use for allocating $NO_x$ allowances to $NO_x$ budget units. While, in part 96, the Agency lays out an optional allocation methodology that may be used by a State permitting authority for issuing allocations, part 97 will prescribe the methodology that the Administrator would use.

**(a) EGUs**. The EPA requests comment on three separate methodologies that the Administrator could use for the initial allocation period (the control periods in 2003 through 2005) for EGUs. In whichever of these methodologies the Agency finalizes, the total number of allowances issued would equal the portion of the trading program budget in the State attributed to large EGUs (calculated as described in section VI.B.3.c.1. of this preamble by multiplying a specified emission rate by a State's summer activity level projected to 2007). The first option is to allocate

allowances based on the product of an emission rate in pounds of $NO_x$/mmBtu and the mmBtus of energy utilized for all units in the Federal $NO_x$ Budget Trading Program; the proposed part 97 describes this approach. The second option is to allocate allowances to fossil fuel-fired EGUs in the Federal $NO_x$ Budget Trading Program based on the product of an emission rate in pounds of $NO_x$/kwh and the kwh of electricity generated. A third option considered by EPA would allocate allowances to all large EGUs, regardless of fuel type, in the States affected by the FIP rulemaking based on their electricity generated. For the second and third options, EPA would use a surrogate for electricity generation data where electricity generation data are not available. The EPA solicits comment on these three methodologies.

With regard to the allocation methodology to be used by the Administrator for the control periods starting in 2006, EPA requests comment on the same three general methodologies mentioned in the previous paragraph. To facilitate the use of the second and third approaches for the control periods in 2006 and thereafter, EPA proposes to work with stakeholders to design a system based on electricity generation that could be used after the initial allocation period. The EPA plans to propose an allocation system based on electricity generation in 1999 and finalize the approach in 2000. Appropriate data could then be measured and

collected at $NO_x$ budget units during the control periods in the years 2001 and 2002. When it becomes available, this approach could be incorporated into part 97 if the Agency decides to allocate allowances based on electricity generation.

For whichever of these three allocation methods the Agency selects, EPA proposes to use the average of the data for the two highest control periods for the years 1995, 1996, and 1997 in determining an EGU's allocation for the control periods in 2003, 2004, and 2005. This approach using data from 1995, 1996, and 1997 differs slightly from the way the aggregate emission level was calculated for the EGU subcategory. As explained in section VI.B.3.c.1. of this preamble, EPA calculated the aggregate emission level based upon the greater of the State heat input data from 1995 or 1996. However, the Agency believes it is useful to base the first 3 years of allocations to individual units on operating data reflecting the average of the highest of 2 out of the 3 most recent years. In this way, the initial allocations better represent the operation of particular units.

Once several years of allocations have been built into the system, the Agency believes it is possible to move to an annually updating allocation system that calculates allocations based on operating data from a single year. Using data from a single year as a basis for allocations

enables the Agency to develop an updating allocation system that can reflect changes in utilization or electricity generation. By this time, the trading market should be more established and companies will have several years of experience with the program. Therefore, companies will better be able to accommodate variations in single year allocations through the trading market and company-wide compliance strategies. Thus, after the initial period of allocations, EPA would use data measured during the control period of the year that is 4 years before the year for which allocations are being calculated.

Furthermore, for reasons discussed in the final $NO_x$ SIP call, EPA proposes in part 97 the establishment of an allocation set-aside account, to be used in whichever allocation methodology EPA adopts, equaling 5 percent of the State trading program budget in 2003, 2004, and 2005 for new units (units that commence operation during or after the period on which general $NO_x$ allowance allocations are based) and 2 percent of the trading program budget in the State in the subsequent years. The Agency believes that if a new source set-aside is employed, it should be large enough to provide allocations to all new units entering the Federal trading program. Based on analyses EPA conducted using the Integrated Planning Model (IPM) and on the Agency's proposal to reallocate by April 1, 2003 for the control period in 2006, 5 percent appears to be a reasonable portion of $NO_x$

allowances to set-aside for new units in the initial 3 years of the program and 2 percent for the subsequent years.

However, while 5 percent (and 2 percent) may be an appropriate regionwide average, an individual State may experience either more or less growth in new sources during the relevant time period. The EPA calculated the State-specific aggregate emission levels for each subcategory using State-specific growth rates (see rulemaking docket). Therefore, EPA solicits comment on using State-specific growth rates to determine the appropriate size of a State new source set-aside. Additionally, the 5 percent (and 2 percent) numbers were calculated based upon estimated growth in utilization by new sources and, therefore, may be more appropriate when the first proposed allocation methodology is employed. The EPA solicits comment on the use of a different percentage for the set-aside if the Agency adopts an electricity generation-based allocation system.

Using each of the three allocation methodologies on which EPA solicits comment, the Agency has calculated unit specific allocations. The allocations for each unit, based on the first two proposed methodologies, are in Appendices A and B of part 97. The allocations resulting from the third methodology can be found in the docket to this rulemaking. The EPA is providing these unit specific allocations to solicit comment on the underlying data used in these allocations and the methodologies employed in determining

the allocations. The Agency will select and describe a set of allocations in the final notice. The EPA would issue the finalized set of the 2003 control period allocations in the NATS by April 1, 2000 for those units that are subject to a FIP.

For the first allocation approach in part 97, EPA determined initial unadjusted allocations to existing electric generating $NO_x$ budget units by multiplying a $NO_x$ emission rate of 0.15 lb/mmBtu by the units' historical heat input calculated by taking the average of the heat input for the two highest control periods for the years 1995, 1996, and 1997. The Agency used the heat input data reported to EPA in quarterly reports during the ozone season for utilities affected under the Acid Rain Program. For non-utility electricity generators, EPA used heat input information reported to Energy Information Administration (EIA) on EIA Form 867.

After determining the initial unadjusted unit allocations, EPA adjusted the allocation for each unit upward or downward to match the portion of the trading program budget in the State attributed to large EGUs. Then, the Agency adjusted the allocation for each unit in the State proportionately so that the total allocations equaled 95 percent of the portion of the trading program budget in the State attributed to large EGUs. This created a new source set-aside of 5 percent.

For the second allocation approach, EPA multiplied the unit heat input in mmBtu and the generator heat rate[2] associated with the generation for that unit, in Btu/kWh, to determine each unit's associated historical electrical generation in kWh[3]. For non-utility electricity generators, EPA used heat input from OTAG's database (1995 data) and the average heat rate values found below in Table 1. The Agency used this indirect approach to calculate electrical output because EPA did not have access to unit-specific generation data for non-utility electricity generators. The EPA used average heat rate values for generators for which heat rates were not publicly available, as shown in the table below.

**Table 1. Average Utility Generator Heat Rates**

| Unit and fuel type | Generator size (MW) | Average heat rate (Btu/kWh) |
|---|---|---|
| Combustion Turbine (gas or No. 2 fuel oil/diesel) | ≤50 | 14250 |
| | >50 | 13200 |

[2]Utilities report their generator-specific heat rates to EIA on EIA Form 860.

[3] The EPA used the average generation for the ozone season during the highest two of the years from 1995 through 1997, similar to the approach with heat input.

| | | |
|---|---|---|
| Combined Cycle Turbine (gas or No. 2 fuel oil/diesel) | ≤100 | 11100 |
| | >100 | 8500 |
| Oil- or Gas-fired Steam Boiler | ≤400 | 10600 |
| | >400 | 10000 |
| Coal-fired Boiler | ≤500 | 10400 |
| | >500 | 9800 |

Some units are cogenerators, which are electrical generators that divert part of their steam to provide steam output, rather than to generate electricity. The Agency calculated output from cogenerating units as described in the previous paragraph. That approach assumes that heat input is converted into electricity at a particular efficiency. The EPA's proposed approach does not account for the fact that steam generation is generally more efficient than electricity generation. The EPA encourages commenters to provide the Agency electrical output data and steam output data to determine the efficiency of cogenerating units.

To determine the individual unit allocations, EPA determined the total electricity generation from all affected EGUs within each State, as estimated in the previous paragraphs, and calculated each unit's share of the total State electricity generation. Each unit was then

assigned an allocation based upon its share of electricity generation. For example, if the Agency calculated that a unit contributed 0.4 percent of a State's total electricity generation, then it would receive 0.4 percent of the trading program budget in the State attributed to large fossil-fuel-fired EGUs. After determining the initial unadjusted allocation, the Agency adjusted the allocation for each unit proportionately so that the total allocation equaled 95 percent of the portion of the trading program budget in the State attributed to large fossil-fuel-fired EGUs (to create the new source set-aside).

The EPA is also proposing a third allocation approach which would provide allowances to all electricity generators in the 23-jurisdiction region regardless of the energy source. For fossil fuel-fired power plants, EPA used the approach described above in determining the electrical generation from individual combustion units. For nuclear power plants and hydroelectric plants, EPA used electrical generation reported by utilities to EIA on EIA Form 759. The Agency was unable to find data for all plants. The Agency solicits comment on these methods for determining electricity generation data. The EPA also requests comment on the data and solicits any additional information for the plants for which EPA has not found data.

The Agency determined the initial unadjusted allocations in the same manner as described for the

electricity generation-based allocations to fossil-fuel-fired units only. That is, the Agency determined the total electricity generation within each State, calculated each unit's share of the total electricity generation, and calculated an allocation based upon that share of the trading program budget in the State attributed to large EGUs. The Agency then adjusted the allocation for each unit proportionately so that the total allocation equaled 95 percent of the portion of the trading program budget in the State attributed to large EGUs.

For each of these three allocation methodologies, the Agency solicits comment on the data used to determine the allocations. Electricity generators, and utilities in particular, already report many of these data to Federal or State government agencies. The necessary data and their sources include:

* For each plant:
    -- Plant name as reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State environmental agency
    -- ORISPL number, if available (or other unique identification number for the plant, if no ORISPL number exists) as reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State environmental agency
    -- State postal abbreviation and county FIPS code as

reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State environmental agency

-- Monitoring locations at the plant (e.g., stacks or fuel pipes where monitoring equipment would be located) for existing monitoring equipment, as reported to U.S. EPA, or to the State environmental agency.

* For each unit (boiler or combustion turbine) at the plant:

-- An identification designation (e.g., 1, CT2) as reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State environmental agency

-- A description of each unit (e.g., combustion turbine, coal-fired wet-bottom boiler) as reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State environmental agency or State utility commission

-- Fuel or energy source used as reported to the EIA or to the State utility commission

-- Heat input (mmBtu) in May 1 through September 30 of 1995, 1996 and 1997 as reported to U.S. EPA and EIA;

-- Estimated historical $NO_x$ mass emissions in May 1 through September 30 of 1995, 1996 and 1997 (as

reported to the U.S. EPA or the State environmental agency).

* For each electrical generator at the plant:
  -- Generation identification designation as reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State utility commission
  -- Nameplate capacity in MWe as reported to U.S. EPA and EIA; if not currently reporting to Federal government, then as reported to the State utility commission
  -- Electrical generation (MWh)in May 1 through September 30 of 1995, 1996 and 1997 as reported to EIA.
* For each steam turbine at the plant that is used to generate steam output instead or in addition to electricity:
  -- An identification designation
  -- Capacity, in mmBtu/hr output rate
  -- Steam output (mmBtu) (not used for electrical generation) in May 1 through September 30 of 1995, 1996 and 1997.

The Agency believes these data are needed both to determine the output of each source and to establish a unique identity for each source and its units. The EPA requests comment on the specific data as well as the type of data supporting the

proposed allocations under part 97.

**(b) Non-EGUs**. For any allocation methodology adopted, the total number of allocations issued to non-EGUs would equal the portion (less the 5 percent set-aside discussed below) of the trading program budget in the State attributed to large non-EGUs (calculated as described in section VI.B.3.c.1. of this preamble by reducing each State's uncontrolled non-EGU $NO_x$ emissions level by 60 percent and assuming activity growth through 2007). At this time, the Agency proposes in part 97 to use heat input as the basis for determining allocations for large non-EGUs in the Federal $NO_x$ Budget Trading Program. The EPA proposes this basis for both the initial allocation period of 2003 through 2005 and for subsequent years of the program. This differs from the method used to determine the aggregate emission level for non-EGUs (a percentage reduction from historical emissions) because at the time the aggregate level was determined (during the $NO_x$ SIP call proposal process), heat input data for individual units were not available. Distributing allocations on a heat-input basis provides a fuel-neutral method of allocating to the units in the trading program similar to the allocation approaches proposed for the EGUs. Heat-input-based allocations also allow for reallocating in the future (to accommodate new units) whereas allocations based upon a specific percentage reduction do not. Heat input data are now available for use

in developing allocations, and the Agency solicits comment on the data as well as the use of heat input in developing allocations.

At this time, the Agency is not aware of any databases on steam output information for industrial boilers. Therefore, for combustion sources other than electrical generators, EPA finds that it is most appropriate to base allocations upon heat input. However, EPA requests comment on any methods for distributing allowances on an output basis to non-EGUs. Comments should address the availability, quality, and appropriateness of the data for regulatory purposes and/or methods to obtain such data.

For the non-EGUs subject to the Federal trading program, EPA proposes in part 97 to use 1995 heat input data in the allocation calculation for the control periods in 2003, 2004, and 2005; 1995 data are the most recent data the Agency knows are currently available for non-EGUs. After this initial period of allocations, as with the EGUs, the Agency will use data measured during the control period of the year, that is, 4 years before the year for which allocations are being calculated.

As was done for EGUs, the Agency has calculated unit specific allocations for large non-EGUs. These unit specific allocations are provided in Appendices A and B of part 97. The EPA solicits comment on the underlying data used in these allocations and the methodology employed in

determining the allocations. The EPA will determine the final allocations for the control period in 2003 and place them in the NATS by April 1, 2000 for those units that are subject to a FIP.

For the non-EGU allocations proposed in today's notice, EPA determined initial unadjusted allocations to existing non-electric generating $NO_x$ budget units by multiplying a $NO_x$ emission rate of 0.17 lb/mmBtu (the average emission rate for existing non-electricity generating budget units after controls are in place) by the units' historical heat input (described above as 1995 control season data).

After determining the initial unadjusted unit allocations, EPA adjusted the allocation for each unit upward or downward to match the portion of the trading program budget in the State attributed to large non-EGUs. Then, the Agency adjusted the allocation for each unit in the State proportionately so that the total allocations equaled 95 percent of the portion of the trading program budget in the State attributed to large non-EGUs.

The Agency proposes in part 97 to set-aside 5 percent of the non-EGU allocations to be consistent with the allocation for EGUs. The EPA solicits comment on this approach and the proposed size of the set-aside.

**(c) Treatment of New Sources**. As discussed in previous sections, the Agency has proposed in part 97 a set-aside for new sources consistent with the provisions of part 96. New

EGUs and non-EGUs required to participate in the Federal $NO_x$ Budget Trading Program will have access to this set-aside. In 2003, 2004, and 2005, each State set-aside would initially hold $NO_x$ allowances equal to 5 percent of the $NO_x$ allowances in the trading program budget in the State. Starting in 2006, each State set-aside would originally hold 2 percent of the $NO_x$ allowances in the trading program budget in the State. At the end of each relevant control period, EPA will return any allowances remaining in the account on a pro-rata basis to the units that had received an original allocation that had been adjusted to create the new source set-aside in the State.

The $NO_x$ allowances in the allocation set-aside would be available to any unit that would otherwise be eligible for an allocation in a control period but did not receive one because the unit commenced operation during or after the period on which the $NO_x$ allowance allocations for existing units were based. To receive $NO_x$ allowances from the allocation set-aside, the $NO_x$ Authorized Account Representative for a unit would submit a $NO_x$ allowance request to the Administrator. The request could be for no more than 5 consecutive control periods, starting with the control period during which the unit is projected to commence operation and ending with the control period preceding the control period for which it has sufficient data to receive an allocation with existing budget units.

For the 6th year or later (and possibly earlier), there would be sufficient operating data for the unit to be incorporated into the $NO_x$ allowance allocations with existing budget units. The $NO_x$ allowance request would need to be submitted prior to May 1 of the first control period for which $NO_x$ allowances are requested and after the date on which the State issues a permit to construct the new unit.

Consistent with part 96, the allowances would be issued to new units on a first-come, first-served basis. For the first allocation approach proposed for EGUs, allowances to new electric generation units would be issued at a rate of 0.15 lb/mmBtu multiplied by the unit's maximum design heat input. Following each control period, the unit would be subject to a reduced utilization calculation. The EPA would deduct $NO_x$ allowances following each control period based on the unit's actual utilization. Because the allocation for a new unit from the set-aside is based on maximum design heat input, this procedure adjusts the allocation by actual heat input for the control period of the allocation. This adjustment is a surrogate for the use of actual utilization in a prior baseline period which is the approach used for allocating $NO_x$ allowances to existing units.

For new non-EGUs, allowances would be issued at the average emission rate (e.g., .17 lbs/mmBtu) for existing budget units (after controls are in place) multiplied by the budget unit's maximum design heat input. Following each

control period, the source would be subject to a reduced utilization calculation similar to that described above for EGUs.

For the second and third allocation approaches proposed for EGUs, allowances to new EGUs would be issued at the average emission rate (in lbs/kwh) for existing budget units (after controls are put in place) multiplied by the maximum design electrical generation derived from operation of the new budget unit. Following each control period, the budget unit would be subject to a reduced utilization calculation similar to that described above under the first approach.

**d. Compliance Supplement Pool.** This notice proposes to establish Federal emissions limits for sources found to significantly contribute to ozone nonattainment problems in a petitioning State. These sources would be required to comply with the emissions limits by May 1, 2003. As discussed in the final $NO_x$ SIP call and the technical support document "Feasibility of Installing $NO_x$ Control Technologies By May 2003," EPA believes that this compliance date is a feasible and reasonable deadline. However, EPA received comments for the $NO_x$ SIP call expressing concern that some sources may encounter unexpected problems installing controls by this deadline that, in turn, could cause unacceptable risk for a source and its associated industry. Commenters explicitly expressed concern related to the electricity industry, stating that the deadline could

adversely impact the reliability of the electricity supply.

In the $NO_x$ SIP call, EPA addressed these compliance concerns by providing additional flexibility for sources to comply with the requirements. The EPA is proposing that similar flexibility mechanisms be provided in part 97. First, EPA is proposing that part 97 include banking provisions as discussed in section III.B.2.h. Second, EPA is proposing that part 97 include a compliance supplement pool that may be used by sources to cover excess emissions during the 2003 and 2004 ozone seasons that are unable to meet the compliance deadline. The proposed part 97 includes a separate compliance supplement pool that would be available to the sources in each State identified in this proposal.

**1. Size of the Compliance Supplement Pool**. The EPA proposes to use the same compliance supplement pools on a State-by-State basis as were included in the final $NO_x$ SIP call. The justification for the size of the State pools is included in the final $NO_x$ SIP call. Table 2 shows the compliance supplement pool that would be available to sources in each State identified in this proposal.

**Table 2. Compliance Supplement Pools (Tons of $NO_x$)**

| State | Compliance Supplement Pool |
|---|---|

| | |
|---|---|
| Alabama | 10,361 |
| Connecticut | 559 |
| Delaware | 417 |
| District of Columbia | 0 |
| Georgia | 10,919 |
| Illinois | 17,455 |
| Indiana | 19,738 |
| Kentucky | 13,018 |
| Maryland | 3,662 |
| Massachusetts | 285 |
| Michigan | 15,359 |
| Missouri | 10,469 |
| New Jersey | 1,722 |
| New York | 1,831 |
| North Carolina | 10,624 |
| Ohio | 22,947 |
| Pennsylvania | 13,716 |
| Rhode Island | 0 |
| South Carolina | 5,062 |
| Tennessee | 12,093 |
| Virginia | 6,108 |
| West Virginia | 16,937 |
| Wisconsin | 6,717 |

**2. Distribution of the Compliance Supplement Pool to Sources.** In the final $NO_x$ SIP call, EPA provides States with two options for distributing the pool to sources. One option is for a State to distribute some or all of the pool to sources that generate early reductions during ozone seasons prior to May 1, 2003. The second option is for a State to run a public process to provide tons to sources that demonstrate a need for a compliance extension. Tons that are not distributed by a State prior to May 1, 2003 will be retired by EPA. A State wishing to use the

compliance supplement pool under the $NO_x$ SIP call may divide the pool and make some of it available to sources through both options, or may use only one of the options for distributing the pool to sources prior to May 1, 2003. Based on these options, EPA is soliciting comment on a number of approaches for distributing the pool to sources under part 97.

First, EPA solicits comment as to whether the compliance supplement pool should be distributed by EPA to sources or distributed by EPA to the States that have sources included in this proposal. If the pools were distributed to States, the States would then be able to distribute the pool to sources. Part 97 is primarily designed to be implemented and administered directly by EPA. For this reason, it may be most efficient for EPA to retain the responsibility of distributing the pool to sources. However, it may be possible to provide more flexibility in the use of the pool for different sources if States were provided the distribution responsibility.

Second, provided that EPA decides to retain the responsibility of distributing the pool to sources, EPA solicits comment on two options for distribution. First, EPA solicits comment on distributing the compliance supplement pool only for early reductions. Under this option, the Agency would distribute allowances from the compliance supplement pool based upon the optional

methodology the Agency laid out in the final $NO_x$ SIP call. Using that methodology, the Agency could issue early reduction credits for the 2001 and 2002 ozone season to units that have installed part 75 monitoring by the 2000 control season, have reduced their emission rate in 2001 or 2002 relative to their rate in 2000 by at least 20 percent, and are operating in the year(s) in which they are applying for early reduction credits at an emission rate below .25 lb/mmBtu. Provided it meets all of these criteria, a unit could request early reduction credits equal to the difference between .25 lb/mmBtu and the unit's actual emissions rate multiplied by the unit's actual heat input for the applicable control period. The Agency laid out the reasons for adopting each of these criteria for early reduction credits in the final $NO_x$ SIP call. Part 97 currently describes this option.

Under this option, if the tons of $NO_x$ in the State's compliance supplement pool exceed the number of valid early reduction credit requests in that State, the Agency would issue one allowance for each ton of early reduction credit requested. Any allowances remaining in the compliance supplement pool after all valid requests have been granted would be retired by the Agency. If, however, the amount of valid requests are more than the size of the State's pool, the Agency would reduce the amount in the credit requests on a pro-rata basis so that the requests equal the size of the

State's pool. After the requests have been reduced, the Agency would then issue allowances based on the remaining size of each credit request.

With this option, sources in States in the Ozone Transport Commission (OTC) that are subject to this rulemaking would be allowed to bring their banked allowances into the Federal $NO_x$ Budget Trading Program as early reduction credits provided the sum of the banked allowances in any State does not exceed the size of the State's compliance supplement pool. As is the case under this option for States outside of the OTC, any remaining credits in the compliance supplement pool would be retired. If the $NO_x$ budget units in an OTC State hold banked allowances from the OTC program in excess of the amount of credits in the State's pool, the Agency would reduce the amount of allowances eligible for early reduction credit on a pro-rata basis.

The Agency solicits comment on the methodology for issuing early reduction credits in this option as well as the approach that limits the use of the compliance supplement pool for early reduction credits. Specifically, the Agency solicits comment on alternative methods for calculating early reduction credits. In addition, EPA solicits comment on the approach specified for integration with the OTC program.

The Agency also solicits comment on a second option for

distribution of the compliance supplement pool. Under this second option, the Agency proposes that a portion of the compliance supplement pool be given out as early reduction credits and the remaining portion be reserved for sources that demonstrate a need for the compliance supplement. As described in the preamble to the final $NO_x$ SIP call, sources would be responsible for demonstrating to the Agency and the public that achieving compliance by May 1, 2003 would create undue risk either to its own operation or associated industry. The administrator of the compliance supplement pool would provide the public an opportunity to comment on the validity of the need for this "direct distribution" of the compliance supplement.

Under this option, the Agency would grant early reduction credits using the method described in the first option (or some variation of that approach) before allowing sources access to the direct distribution credits from the compliance supplement pool. The Agency proposes to address OTC banked allowances held by sources subject to this rulemaking as suggested in the first option. To ensure that the compliance supplement is only provided to sources that truly need a compliance extension, the remaining credits in the compliance supplement pool would be given out to an owner or operator of a source that demonstrates the following:

* The process of achieving compliance by May 1, 2003

would create undue risk for the source or its associated industry. For electric generating units, the demonstration should show that installing controls would create unacceptable risks for the reliability of the electricity supply during the time of installation. This demonstration would include a showing that it was not feasible to import electricity from other systems during the time of installation. Non-electric generating sources may also be eligible for the compliance supplement based on a demonstration of risk comparable to that described for the electricity industry.

* It was not possible to compensate for delayed compliance by generating early reduction credits at the source or by acquiring credits generated by other sources.

* It was not possible to acquire allowances or credits for the 2003 ozone season from sources that will make reductions beyond required levels during the 2003 ozone season.

The Agency solicits comment on this option that distributes the compliance supplement pool both through early reduction credits as well as direct distribution. Specifically, the Agency requests comment on the number of credits to reserve for direct distribution, the methodology used for direct distribution, and options for public review

of the direct distribution. The Agency also solicits comment on the appropriate administrator of the direct distribution.

Under any of the options described above, the Agency proposes that $NO_x$ allowances issued from the compliance supplement pool would only be available for sources to use for compliance in the 2003 or 2004 control periods. Any $NO_x$ allowances issued from the compliance supplement pool that is not used for compliance in 2003, would be considered to be "banked" for the 2004 control period. The Agency proposes to retire any $NO_x$ allowance issued from the compliance supplement pool that is not used in either the 2003 or 2004 control period at the end of the 2004 true-up period for the reasons cited in the preamble to the final $NO_x$ SIP call.

**e. Emissions Monitoring and Reporting.** Subpart H of part 97 addresses monitoring and reporting requirements including, among other things, general requirements, initial certification and recertification procedures, out of control periods, notifications, recordkeeping and reporting, and petitions. These provisions are essentially the same as the monitoring-related provisions of part 96, with cross references to the appropriate sections of part 97. The differences between the provisions reflect the fact that administration of the monitoring requirements is overseen by EPA, rather than by EPA and the permitting authority in the

model state trading program. As a result, for example, monitoring certification applications are submitted to the Administrator and the appropriate EPA Regional Office in addition to the permitting authority, and the Administrator, not the permitting authority, will act on the applications. Further, the Administrator handles all audit decertifications and all petitions for alternatives to the monitoring requirements.

Another difference is that in the State $NO_x$ Budget Trading Program, EPA included heat input monitoring requirements that States might choose to adopt if they were basing their allocation methodologies on heat input. The proposed Federal $NO_x$ Budget Trading Program bases its allocation approach on heat input. Therefore, EPA has included the heat input monitoring and reporting requirements in proposed part 97. Note that as explained in section III.3.c.5 of the section 126 proposal, EPA is taking comment on three different allocation methodologies. Depending on the methodology chosen, monitoring and reporting requirements would vary.

The EPA is proposing these part 97 provisions for the reasons set forth both in the proposed $NO_x$ SIP call (63 FR 25938-40) and the final $NO_x$ SIP call and in order to minimize differences between the Federal and State $NO_x$ Budget Trading Programs.

In particular, for the reasons set forth in the $NO_x$ SIP

call, EPA proposes that $NO_x$ budget units be required to meet the monitoring and reporting requirements in a new subpart H of 40 CFR part 75, the Acid Rain Program regulations (63 FR 25938-40). The EPA has promulgated these revisions to part 75 to establish $NO_x$ mass monitoring requirements and provide greater flexibility to regulated sources in conjunction with the final $NO_x$ SIP call rule.

**f. Opt-Ins.** Subpart I of part 97 addresses the opt-in process and procedures applicable to operating units that are not $NO_x$ budget units under § 97.4, but are located in a State that is included in the Federal $NO_x$ Budget Trading Program and wish to voluntarily enter (i.e., opt-in to) the trading program. The opt-in provisions can further reduce the cost of achieving $NO_x$ reductions by allowing these units to join the $NO_x$ Budget Trading Program and make incremental, lower cost reductions, freeing $NO_x$ allowances for use by other $NO_x$ budget units. There are potentially individual sources not included in the trading program that may emit significant amounts of $NO_x$ and are able to achieve cost-effective reductions; allowing these sources to join the program would reduce the overall cost of compliance for the program. The EPA proposes in subpart I to allow individual combustion sources that vent to a stack the opportunity to opt-in to the program for purposes of the FIP. The EPA solicits comment on the appropriateness of these opt-in provisions.

Subpart I addresses, among other things, the applicability requirements, allocations, procedures for applying for a $NO_x$ budget opt-in permit, the process of reviewing and approving or denying the permit, contents of the permit, procedures for withdrawing as a $NO_x$ budget opt-in source, and changes in regulatory status. The provisions of this subpart are similar to the opt-in provisions in part 96, with cross references to the appropriate sections in part 97, though the Administrator plays a greater role than in part 96 with regard to actions on opt-in permits, allocations, and other related opt-in submissions. For example, under the Federal trading program, opt-in permit applications are submitted to both the Administrator and the permitting authority, but only the Administrator may determine whether the unit qualifies as a $NO_x$ budget opt-in source. Furthermore the Administrator, rather than the permitting authority, allocates allowances to sources in the Federal $NO_x$ Budget Trading Program. The EPA is proposing these part 97 provisions for the reasons set forth both in the proposed $NO_x$ SIP call (63 FR 25940-42) and the final $NO_x$ SIP call, and in order to minimize differences between the Federal and State $NO_x$ Budget Trading Programs.

**g. Program Administration**. As discussed above, the Federal $NO_x$ Budget Trading Program would be run by EPA. The EPA would identify the units covered by the program, determine and record the $NO_x$ allowance allocations, receive and review

monitoring plans and monitoring certification applications, and take the lead in enforcement. As discussed above, States would still be responsible for permitting.

**C. New Source Review (NSR)**

As discussed in the proposed and final $NO_x$ SIP call, EPA believes that nonattainment NSR offset requirements of the CAA can be met using the mechanism of the State $NO_x$ Budget Trading Program under part 96. However, because the Agency is continuing to evaluate a number of complex issues involved with integrating NSR and the trading program, it will not be providing guidance at this time. The EPA intends to provide such guidance as soon as possible. At that time, the EPA will also address whether EPA should integrate NSR with the trading program under part 97.

**VII. Non-Trading Sources Emissions Limits**

**A. Introduction**

In this section of the notice, EPA summarizes information used in establishing the proposed regulations for the non-trading source categories. The regulations themselves appear at the end of the notice. The EPA encourages readers to provide information and regulatory suggestions to allow EPA to improve the proposed rules' clarity and provide for least-cost compliance approaches. In many cases, affected sources are already subject to existing State and local emissions reduction requirements,

and the responsible State and local agencies may be developing further regulatory initiatives as part of their ongoing SIP efforts. The EPA invites comment on approaches to craft the FIP rules in a manner which, to the extent possible, matches the format of State or local regulations and minimizes conflict between the Federal regulatory regime and current or proposed State and local requirements. However, it is important that the projected emissions decreases from the FIP rules are adequate to achieve the emissions budget assigned in the $NO_x$ SIP call final rulemaking.

**B. Permits**

As mentioned earlier, the regulations governing State permitting under title V define an "applicable requirement," which must be reflected in a title V operating permit, as including any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA, through rulemaking under title I of the CAA, that implements the relevant requirements of the CAA, including any revisions to that plan promulgated in part 52 of this chapter (40 CFR 70.2). Since today's proposed rule is being promulgated under title I, the requirements of this rule are applicable requirements under § 70.2 and must be reflected in the title V operating permit of sources subject to the FIP that are required to have such a permit. The EPA believes that the large stationary internal combustion

engines and cement kilns subject to the FIP are required to have a title V permit. Further, all State and local air permitting authorities currently have EPA-approved title V operating permits programs. Consequently, these State and local agencies would be the permitting authorities for the sources subject to the FIP.

## C. Stationary Internal Combustion Engines

### 1. Rule Requirements

As described in the $NO_x$ SIP call, EPA's budget calculation includes a 90 percent decrease from uncontrolled levels for the large sources in this category. The FIP rules proposed today are designed to achieve that 90 percent emissions decrease, averaged over a rolling 30-day period, using control technologies that are estimated to be less than $2,000 per ton of $NO_x$ removed on average. The requirements are contained in the regulatory section of this notice. To ensure that the rules apply only to large sources, the regulation includes a size cutoff of between 2,400 and 4,400 brake horsepower, depending on the fuel.

### 2. Background

The control level selected for spark ignited rich-burn engines is a limit of 110 parts per million by volume (ppmv) $NO_x$ at 15 percent oxygen ($O_2$) for engines that are 2400 brake horsepower (hp) or larger. This represents non-selective catalytic reduction (NSCR) control. The NSCR

provides the greatest $NO_x$ reduction of all technologies considered in the Alternative Control Techniques (ACT) document for "$NO_x$ emissions from Stationary Reciprocating Internal Combustion Engines" (EPA-453/R-93-032) and is capable of providing a 90 to 98 percent reduction in $NO_x$ emissions. The range of controlled $NO_x$ is reported to be 0.3 to 1.6 grams per brake horsepower-hour (g/hp-hr), or 20 to 110 ppmv (at 15 percent $O_2$) in the ACT document. The lower end of the range represents 98 percent control and the upper end represents 90 percent control. According to the ACT document, one NSCR supplier guarantees 98 percent reduction. However, an alternative limitation of 90 percent reduction was selected because 98 percent reduction is based on a single supplier's guarantee. Engines that are 2400 hp or larger have the potential to emit 1 ton of $NO_x$ per day.

The control level selected for spark ignited lean-burn engines is a limit of 125 ppmv $NO_x$ at 15 percent $O_2$ for engines that are 2400 hp or larger. This represents selective catalytic reduction (SCR) control. The SCR provides the greatest $NO_x$ reduction of all technologies considered in the ACT document for lean-burn engines and is capable of providing a 90 percent reduction in $NO_x$ emissions. Engines that are 2400 hp or larger have the potential to emit 1 ton or more of $NO_x$ per day.

The control level selected for diesel engines is a limit of 175 ppmv $NO_x$ at 15 percent $O_2$ for engines that are

3100 hp or larger. This represents SCR control. The SCR provides the greatest $NO_x$ reduction of all technologies considered in the ACT document for diesel engines and is capable of providing a 90 percent reduction in $NO_x$ emissions. Engines that are 3100 hp or larger have the potential to emit 1 ton or more of $NO_x$ per day.

The control level selected for dual fuel engines is a limit of 125 ppmv $NO_x$ at 15 percent $O_2$ for engines that are 4400 hp or larger. This represents SCR control which provides the greatest $NO_x$ reduction of all technologies considered in the ACT document for dual fuel engines. The SCR is capable of providing a 90 percent reduction in $NO_x$ emissions from dual fuel engines. Dual fuel engines that are 4400 hp or larger have the potential to emit 1 ton of $NO_x$ per day.

To ensure compliance with these post-combustion controls, EPA is proposing requiring affected sources to install continuous emissions monitoring systems (CEMS). The CEMS must meet the requirements of 40 CFR part 60. The EPA is proposing the part 60 requirements rather than the part 75 requirements because the rule does not regulate mass emissions, but instead regulates on a volumetric (parts per million) basis.

The EPA invites comment on alternative approaches to monitoring emissions, including CEMS meeting the requirements of 40 CFR part 75. The EPA specifically

requests comments on the use of predictive emissions monitoring systems (PEMS). The EPA will give greater consideration to comments that provide data demonstrating the accuracy of alternative methods such as PEMS, particularly if the data provide a comparison of the alternative method to simultaneous data gathered using either a CEM or using EPA reference method testing. More consideration will also be given to data that provide complete information about the range of unit operating parameters that the method was tested over. If commenters do not have these data available, EPA requests comments explaining why the alternative methods would be valid over the range of operating conditions that the unit could be expected to be operating.

## D. Cement Manufacturing

### 1. Rule Requirements

As described in the $NO_x$ SIP call, EPA's budget calculation includes a 30 percent decrease from uncontrolled levels for the large sources in this category. The FIP rules proposed today are designed to achieve that 30 percent emissions decrease using control technologies that are estimated to be less than $2,000 per ton of $NO_x$ removed. The requirements are to install and operate low-$NO_x$ burners, mid-kiln firing, or alternative control techniques, subject to EPA approval, that achieve at least the same emissions

decreases as low-$NO_x$ burners or mid-kiln firing. These requirements are contained in the regulatory section of this notice. To ensure that the rules apply only to large sources, the rule applies only to kilns with process rates of at least the following:

Long dry kilns - 12 tons per hour (TPH)

Long wet kilns - 10 TPH

Preheater kilns - 16 TPH

Precalciner and preheater/precalciner kilns - 22 TPH.

For the purpose of determining alternative control techniques that EPA would consider, it should be noted that EPA expects the following emissions limits can be met by low-$NO_x$ burners or mid-kiln firing:

(i) For any long wet kiln, 6.0 lbs/ton of clinker produced when averaged over any 30 consecutive days.

(ii) For any long dry kiln, 5.1 lbs/ton of clinker produced when averaged over any 30 consecutive days.

(iii) For any preheater kiln, 3.8 lbs/ton of clinker produced when averaged over any 30 consecutive days.

(iv) For any preheater/precalciner or precalciner kiln, 2.8 lbs/ton of clinker produced when averaged over any 30 consecutive days.

**2. Background**

There are 4 types of cement kilns: long wet, long dry, preheater, and precalciner, as described in the ACT document

for "$NO_x$ emissions from Cement Manufacturing" (EPA-453/R-94-004). For purposes of developing this rule, EPA is using the average of the standard EPA emission factor (see Volume I: "Stationary Point and Area Sources," Chapter 11, "Mineral Products Industry Compilation of Air Pollutant Emission Factors," AP-42, Fifth Edition, EPA) and ACT document uncontrolled emission factors. Available $NO_x$ controls with cost effectiveness less than $2,000/ton (expressed in 1992 dollars) and which achieved the most reductions are:

**a. Mid-Kiln firing**. Cost effectiveness of $430-610/ton. Applicable for long wet and long dry kilns. Ten long kilns have been modified for mid-kiln firing. Two emission tests show $NO_x$ reductions of 18 and 36 percent.

**b. Low-$NO_x$ burner.** Cost effectiveness of $830-1,330/ton. Applicable for all kilns. Experimental tests show $NO_x$ reductions of 20-30 percent. Subsequent to the ACT document, one test at an indirect fired-coal system with a low-$NO_x$ burner shows reduction of 28 percent.

**c. Selective noncatalytic reduction.** Cost effectiveness of $440-1,240/ton. Applicable for preheater and precalciner kilns. Two experimental tests - $NO_x$ reductions of 27-40 percent.

The definitions in the proposed rule are generally from the cement ACT document and the Mojave Desert, California rule for portland cement (AQMD Rule 1161). The compliance

determination, monitoring and recordkeeping requirements, exemptions, and test method sections are adapted primarily from the Mojave Desert rule. In addition, cement rules from the following areas were examined: Santa Barbara County (California), States of Florida, New Hampshire, Maine, Massachusetts, Northeast States for Coordinated Air Use Management and Sacramento Metropolitan (California).

To ensure compliance with these requirements and to determine the emissions reductions, EPA is proposing requiring affected sources to complete an initial performance test and subsequent annual testing. The EPA is proposing this approach rather than requiring CEMS because EPA is not requiring these sources to meet an emission limit, either on a rate basis as IC engines are, or on a mass basis as units subject to the trading program are. Rather, cement kilns are required to demonstrate that controls have been installed and are being properly operated. The proposed combustion controls, once installed and operating, are expected to be effective over the ozone season and are not subject to as much uncertainty as some post-combustion controls, where, for example, the amount of reagent injected by the operator on a daily or hourly basis is critical. Any cement manufacturing units that choose to opt-in to the trading program would need to install and operate CEMS consistent with the requirements of 40 CFR part 75. The part 75 requirements are necessary in a trading

program because consistent and accurate monitoring of emissions is necessary for accountability regarding compliance with the requirement to hold $NO_x$ allowances and to ensure that a ton of emissions attributed to one source in one State is equivalent to a ton attributed to another source in the same or another State.

The EPA invites comment on alternative approaches to monitoring emissions for this industry, including CEMS meeting the requirements of 40 CFR part 60 or part 75. The EPA specifically requests comments on the use of PEMS. The EPA will give greater consideration to comments that provide data demonstrating the accuracy of alternative methods such as PEMS, particularly if the data provide a comparison of the alternative method to simultaneous data gathered using either a CEM or using EPA reference method testing.

## VIII. Administrative Requirements

### A. Regulatory Impact Analysis

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the 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.

The EPA believes that this action is a "significant regulatory action" because it would have an annual effect on the economy of approximately $1.7 billion. The EPA has estimated benefits from this proposal in the range of $1.1-4.2 billion, with EPA’s best estimate being $3.4 billion. Therefore, the NPR was submitted to OMB for review. Any written comments from OMB to EPA and any written EPA response to those comments are included in the docket. The docket is available for public inspection at the EPA's Air Docket Section, which is listed in the ADDRESSES section of this preamble. Detailed information on the benefits and costs of changes in $NO_x$ emissions is contained in the RIA in the $NO_x$ SIP call docket, which also serves as the RIA for the FIP proposal.

The EPA is proposing to regulate $NO_x$ emissions from stationary sources in the following catgegories located in 22 States and the District of Columbia: electric power generating units, industrial boilers and turbines, cement manufacturing and internal combustion engines. This will lead to the placement of $NO_x$ controls on operating units in these categories. Therefore, EPA has estimated the $NO_x$ emissions reductions and costs resulting from this proposal.

Analytical limitations prevented EPA from estimating the costs of a single, State-specific cap-and-trade program for the large EGUs and non-EGU point sources. Therefore, the Agency estimated the impacts of a regional cap-and-trade program only for the EGUs at this time. For non-EGUs in the core trading program, EPA assumed a least-cost analysis as described in the $NO_x$ SIP call. Finally, EPA assumed emissions decreases from large cement plants and stationary internal combustion engines using a command-and-control type approach since trading may not be immediately available as an option for these sources.

**B. Impact on Small Entities**

**1. Regulatory Flexibility Act**.

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), provides that whenever an agency is required to publish a general notice of proposed rulemaking, it must prepare and

make available an initial regulatory flexibility analysis, unless it certifies that the proposed rule, if promulgated, will not have “a significant economic impact on a substantial number of small entities.”

In the process of developing this rulemaking, EPA worked with the Small Business Administration (SBA) and the Office of Management and Budget (OMB) and obtained input from small businesses, small governmental jurisdictions, and small organizations. On June 23, 1998, EPA’s Small Business Advocacy chairperson convened a Small Business Advocacy Review Panel under section 609(b) of the RFA as amended by SBREFA. For this proposal, in addition to its chairperson, the Panel consisted of EPA’s Deputy Director of the Office of Air Quality Planning and Standards within the Office of Air and Radiation, the Administrator of the Office of Information and Regulatory Affairs within the OMB, and the Chief Counsel for Advocacy of the SBA.

As described below, this Panel conducted an outreach effort and completed a report on the FIP proposal. The report provides background information on the proposed rule being developed and the types of small entities that would be subject to the proposed rule, describes efforts to obtain the advice and recommendations of representatives of those small entities, summarizes the comments that have been received to date from those representatives, and presents the findings and recommendations of the Panel; the completed

report, comments of the small entity representatives, and other information are contained in the docket for this rulemaking.

It is important to note that the Panel's findings and discussion are based on the information available at the time this report was drafted. The EPA is continuing to conduct analyses relevant to the proposed rule, and additional information may be developed or obtained during the remainder of the rule development process. The Panel makes its report at a preliminary stage of rule development and its report should be considered in that light. At the same time, the report provides the Panel and the Agency with an opportunity to identify and explore potential ways of shaping the proposed rule to minimize the burden of the rule on small entities while achieving the rule's statutory purposes. Any options the Panel identifies for reducing the rule's regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, environmentally sound and consistent with the statute authorizing the proposed rule.

**2. Outreach to Small Entity Representatives**.

In consultation with the SBA, EPA invited 36 small entity representatives to participate in its outreach efforts on this proposal. The EPA, OMB, and SBA held an initial outreach meeting with a group of small-entity

representatives in Washington, D.C. on April 14, 1998. The purpose of this meeting was to familiarize the small-entity representatives with the substance of the rulemaking and the kinds of sources being considered for regulation, and to solicit comment on these topics. Subsequent to the meeting, the representatives submitted follow-up comments in writing. The primary outreach was accomplished by a meeting with the small-entity representatives in Washington, D.C. on August 4, 1998. The purpose of this meeting was to present the results of EPA's analysis on small-entity impacts, and to solicit comment on this analysis and on suggestions for impact mitigation. Subsequent to the meeting, the representatives submitted follow up comments in writing.

To define small entities, EPA used the SBA industry-specific criteria published in 13 CFR section 121. The SBA size standards have been established for each type of economic activity under the Standard Industrial Classification (SIC) System. Due to their $NO_x$-emitting properties, the following industries have the potential to be affected by the $NO_x$ FIP rulemaking:

SIC Codes in Division D: Manufacturing

2611 -- Pulp mills

2819 -- Industrial Inorganic Materials

2821 -- Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers

2869 -- Industrial Organic Chemicals

3211 -- Flat Glass

3221 -- Glass Containers

3229 -- Pressed and Blown Glass and Glassware

3241 -- Cement, Hydraulic

3312 -- Steel Works, Blast Furnaces, and Rolling Mills

3511 -- Steam, Gas, and Hydraulic Turbines

3519 -- Stationary Internal Combustion Engines

3585 -- Air-Conditioning and Warm-Air Heating Equipment and Commercial and Industrial Refrigeration Equipment

SIC Codes in Division E: Transportation, Communications, Electric, Gas, and Sanitary Services

SIC Major Group 49: Electric, Gas, and Sanitary Services, including:

4911 -- Electric Utilities

4922 -- Natural Gas Transmission

4931 -- Electric and other Gas Services

4961 -- Steam and Air Conditioning Supply

**3. Potentially Affected Small Entities**.

The primary topic of the Panel discussion was the applicability of the FIP to the various categories of $NO_x$-emitting sources, the costs the rule would impose, and the possibility of further reducing rule applicability. Secondary topics included emissions monitoring and other potentially duplicative Federal rules. These discussions are summarized below.

The FIP rulemaking is potentially applicable to all

stationary-source, $NO_x$-emitting entities in the 23-jurisdiction area covered by the FIP. The EPA estimates that the total number of such entities is approximately 5300, of which about 1200 are small entities. Based primarily on considerations of overall cost effectiveness and administrative efficiency, EPA is considering reducing this applicability based on several factors including input from this Panel. Specifically, EPA is proposing to exempt (i.e., not regulate) a number of source categories from being subject to this regulation based on factors such as low relative emissions and lack of an identified $NO_x$ control technology. Additional categories of sources are being considered for exemption because they may not be highly cost effective to control, with EPA considering an average cost effectiveness of $2000 per ton of $NO_x$ removed as the upper limit for highly cost-effective reductions. These factors are discussed in detail in section IV.F, Other Point Source Categories, of this notice.

If EPA takes final action as proposed today with this reduced-applicability approach, the FIP will apply only to the following types of sources: EGUs, industrial boilers and combustion turbines, and internal combustion engines and cement manufacturers. The stringency levels of control EPA currently intends to propose for these types of sources is as follows: for EGUs, an emission rate of 0.15 pounds of $NO_x$ per million BTU; for industrial boilers and combustion

turbines, an emission reduction of 60 percent; for internal combustion engines, an emission reduction of 90 percent; and for cement manufacturers, an emission reduction of 30 percent. At these stringency levels, the estimated number of small entities that would be affected is as follows:

* Electric Generating Units -- 114 small entities
* Industrial Boilers and/or Combustion Turbines -- 31 small entities
* Internal Combustion Engines and Cement Manufacturers -- 8 small entities

EPA has further estimated that, of these affected small entities, the following would experience compliance costs equal or greater to 1 percent of their revenues:

* Electric Generating Units -- 32 small entities
* Industrial Boilers and Combustion Turbines -- 7 small entities
* Internal Combustion Engines and Cement Manufacturers -- 3 small entities

Of these, EPA estimates that about 18 small entities with EGUs and 4 small entities with industrial boilers or turbines would see costs greater than 3 percent of revenues, and that no IC engines or cement manufacturers would see costs above 3 percent of revenues.

Focusing the rule on these categories would constitute a reduction of over 85 percent in the number of small entities affected by the rule: out of 1200 potentially-

affected small entities, over 1000 would be exempted, with only 153 small entities remaining. The Panel received written comments from three small-entity representatives strongly endorsing these exemptions.

**4. Panel Findings and EPA Actions**

**a. Exemptions**. The Panel agreed with the general approach EPA is proposing to define the scope of the rule. The Panel recommended that the categorical exemptions noted above be included in the proposal, and further recommended that the applicability of EPA's proposed rule be limited to the categories shown in that section. As discussed in section IV of this notice, EPA is proposing to limit applicability as recommended by the Panel. Furthermore, as described below, the Panel considered it appropriate to explore additional options for reducing the impact of the rule.

Several of the small entity representatives suggested that EPA exempt all small entities from this rulemaking. Although EPA does not feel that a blanket, across-the-board exemption could be supported, EPA is receptive to proposals for further exemptions, up to and including exempting all small entities if that could be shown to be appropriate. As recommended by the Panel, EPA solicits comment on additional types of small-entity exemptions and the rational bases on which such exemptions could be made, such as disproportionate ability to bear costs and administrative

burden. Further, where such exemptions are recommended, EPA solicits comment on specific approaches to achieving the total emissions reductions proposed in the FIP since additional types of small-entity exemptions would create an emissions shortfall; approaches could include tighter limits on certain sources affected by the FIP or revision of the $NO_x$ SIP call budget.

**b. Continuous Emissions Monitoring Systems**. The Panel received both written and oral comments to the effect that CEMS would be prohibitively costly for many industrial boilers, representing a significant part of the cost of the rule. The EPA believes that to enhance the enforceability of the emission limitation in the FIP (as required by section 110(a)(2)(A)), it is necessary for all sources in the trading program to be subject to accurate and consistent monitoring requirements designed to demonstrate compliance with a mass emission limitation, and, therefore, intends to require all large units to monitor $NO_x$ mass emissions using CEMS (including units opting-in to the trading program). The EPA is currently considering whether to require CEMS for both trading and non-trading sources in this rule. However, EPA does believe that it is appropriate to provide lower-cost monitoring options for units with low-$NO_x$ mass emissions, and ,therefore, intends to allow non-CEMS alternatives for units that have emissions of less than 50 tons per year of $NO_x$. This cutoff will provide relief for

boilers large enough to be covered by the rule, but that run for a smaller number of hours each year, including any such boilers owned by small entities.

The OMB and SBA share the commenters' concern for the potentially high cost of CEMS requirements. Consistent with this concern, EPA solicits comment on alternative monitoring options for non-trading sources, such as parametric monitoring or monitoring as currently required by the new source performance standards (NSPS) program.

**c. Trading Program Opt-In**

The Panel recommended that EPA encourage non-trading sources to opt-in to the emissions trading program. In the Panel’s view, allowing these sources to opt-in to the trading program provides an incentive to develop alternative cost-effective control options that will allow sources to improve overall emissions reduction cost savings. The EPA solicits comment on effective ways to accomplish this while still maintaining the integrity of the trading system.

**d. Cement Kilns**

Consistent with SBREFA’s goal of reducing small-entity impacts, the Panel also proposed a number of specific ideas for exempting or reducing burden on particular categories of small entities. Many of these ideas were generated from comments made by small entity advisors to this Panel. The first category the Panel explored was cement kilns, where

commenters had raised questions regarding EPA's analyses of control efficiency and cost. The first option explored was to propose exempting cement kilns as a source category if it could be shown that EPA's assumed 30 percent reduction of $NO_x$ emissions is not feasible, and that the achievable reductions were such that it would not be cost effective to require controls on these sources. As recommended by the Panel, EPA solicits comment on rational bases on which small-entity-owned cement kilns could be exempted if further analysis shows this to be appropriate. Examples of the kinds of factors that might be considered rational bases for exemption are disproportionate ability to bear costs and administrative burdens, and contributing only de minimis amounts of emissions.

The second option considered by the Panel was to retain applicability to cement kilns, but to grant relief if, after installing available controls, they proved to be unable to achieve the mandated 30 percent reduction in $NO_x$ emissions. This concept was conceived in this case due to commenters' claims that cement kilns are highly idiosyncratic, and that the available cost-effective technologies (such as mid-kiln firing) may produce greatly varying results from unit to unit. The model concept considered was that of an Alternative Emission Limit (AEL) similar to the one used in the acid rain $NO_x$ reduction program (59 FR 13538, March 22, 1994), whereby a source can apply for and receive a less

stringent reduction requirement if it can be shown that this lesser reduction is the most that can be achieved at that particular unit. To implement this concept, the Panel recommended that EPA solicit comment on whether small-entity-owned cement kilns unable to achieve the mandated reduction should be given the opportunity to apply for an AEL to be set at a level demonstrated to be achievable at the unit in question. The EPA solicits comment on the appropriateness and workability of this option, particularly information that would support it.

**e. Electric Generating Units**

The next area considered by the Panel was EGUs. The EPA's analysis shows that slightly more than 30 EGUs may experience costs above 1 percent of revenues, and that 18 of these might exceed 3 percent. From comments made by small utilities, the Panel suspects that many of these high-cost-to-revenue situations may involve peaking units, which run only a small percentage of the time and thus may be inefficient to control. To address this problem, the Panel recommended that EPA solicit comment on whether to allow EGUs to obtain a federally enforceable $NO_x$ emissions tonnage limit (e.g., 25 tons during the ozone season) and thereby obtain an exemption from FIP applicability. The EPA solicits comment on the necessity for and appropriateness of such an option.

**f. Industrial Boilers**

Individual Panel members conceived of other potential ways to mitigate impact on small entities, such as raising the size cutoff for small entities and/or lessening the required percentage reduction in $NO_x$ emissions required from small entities. The SBA encouraged the Agency to conduct analyses to determine the impact of 40 percent reduction being applied solely to small entities and 60 percent solely to large entities, and the resulting effect on control levels for sources regulated in the FIP proposal. The EPA solicits comment on whether requirements should be reduced on small-entity-owned industrial boilers by some combination of raising the size cutoff and/or lessening the required reduction; which, if any, of these options is preferable; the necessity and appropriateness of any such option; the appropriate level (e.g., 40 percent reduction instead of 60 percent); and information to support any comments submitted.

**g. EPA Guidance to States on Small Entities**

Finally, the Panel noted that several small entity representatives expressed concern that regardless of the sensitivity to small-entity concerns EPA shows in the FIP (or section 126) rulemaking, the States may nevertheless see fit to target small entities in their SIPs. To help address this problem, the Panel recommended that, subsequent to the

FIP and 126 proposals, EPA issue guidance that conveys to the States the kinds of options and alternatives EPA has considered in addressing small-entity concerns, explains the rationale behind these kinds of options, and recommended that the States consider adopting similar alternatives in their SIPs. The EPA intends to address this issue as it develops implementation guidance for the States to use in developing SIPs.

**C. Unfunded Mandates Reform Act**

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub.L. 104-4, 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).

The EPA is taking the position that the requirements of UMRA apply because this action could result in the establishment of enforceable mandates directly applicable to sources (including sources owned by State and local governments) that could result in costs greater than $100 million in any one year. 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’s analysis, “Unfunded Mandates Reform Act Analysis For the Proposed Federal Implementation Plan Rule Under the Clean Air Act Amendments Title I,” is in the docket for this action and examines the impacts of the proposed FIP on EGUs and non-EGUs owned by State, local, and tribal governments, as well as those sources owned by private entities. This proposal potentially affects 78 EGUs that are owned by two States and 24 municipalities (Massachusetts and South Carolina own 19 units, and the municipalities own the remaining 59 units). In addition, 7

non-EGUs owned by 2 States and 5 municipalities are potentially affected. The EPA has not identified any units on Tribal lands that would not be subject to the proposed requirements. The overall costs are dominated by the 78 EGUs and range from 3.2 to 3.9 percent of the total costs for all of the EGUs potentially affected by the FIP. These State- and municipality-owned units produce approximately 2.6 percent of the electricity in the region, which suggests that their cost impacts are only slightly higher than their production share, in comparison to all units in the region.

Under section 203 of UMRA, 2 U.S.C. 1533, before EPA establishes any regulatory requirements "that might significantly or uniquely affect small governments," EPA must have developed a small government agency plan. The plan must provide for notifying potentially affected small governments; enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates; and informing, educating, and advising small governments on compliance with the regulatory requirements. The proposed requirements do not distinguish EGUs based on ownership, either for those units that are included within the scope of the proposed rule or for those units that are exempted by the generating capacity cut-off. Consequently, the proposed rule has no

requirements that uniquely affect small governments that own or operate EGUs within the SIP call region. With respect to the significance of the rule's provisions, EPA's UMRA analysis (cited above) demonstrates that the economic impact of the rule will not significantly affect State or municipal EGUs or non-EGUs, either in terms of total cost incurred and the impact of the costs on revenue, or increased cost of electricity to consumers. Therefore, development of a small government plan under section 203 of the Act is not required.

Under section 204 of UMRA, 2 U.S.C. 1534, if an agency proposes a rule that contains a "significant Federal intergovernmental mandate[], the agency must develop a process to permit elected officials of State, local, and tribal governments to provide input into the development of the proposal." In order to fulfill UMRA requirements that publicly-elected officials be given meaningful and timely input in the process of regulatory development, EPA has sent letters to five national associations whose members include elected officials. The letters provide background information, request the associations to notify their membership of the proposed rulemaking, and encourage interested parties to comment on the proposed actions by sending comments during the public comment period and presenting testimony at the public hearing on the proposal.

Any comments will be taken into consideration as the action moves toward final rulemaking.

In addition, during the NOx SIP call, EPA provided direct notification to potentially affected State and municipally-owned utilities as part of the public comment and hearing process attendant to proposal of the NOx SIP call and supplemental notice of proposed rulemaking. These procedures helped ensure that small governments had an opportunity to give timely input and obtain information on compliance. EPA provided the 26 State- and municipality-owned utilities and appropriate elected officials with a brief summary of the proposal and the estimated impacts. The public rulemaking also elicited numerous comments from State and municipal utilities and groups representing utility interests.

**D. Paperwork Reduction Act**

The information collection requirements in this proposed rule have been submitted for approval to the OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1883.01) and a copy may be obtained from Sandy Farmer, by mail at OP Regulatory Information Division, US Environmental Protection Agency (2137), 401 M St., SW, Washington, DC 20460, by email at farmer.sandy@epamail.epa.gov, or by calling (202) 260-2740.

A copy may also be downloaded off the internet at http://www.epa.gov/icr.

The EPA believes that it is essential that compliance with the regional control strategy be verified. Tracking emissions is the principal mechanism to ensure compliance with the budget and to assure the downwind affected States and EPA that the ozone transport problem is being addressed. The reporting requirements can be divided into three categories: statewide emissions budgets, trading program, and other stationary source categories regulated.

**1. Statewide Emissions Budgets**

The reporting and recordkeeping burden (to be incurred by EPA) for this collection of information is described in the final $NO_x$ SIP call rulemaking and is summarized below:

*Respondents/Affected Entities:* States, along with the District of Columbia, which are included in the $NO_x$ SIP call.

*Number of Respondents:* 23

*Frequency of Response:* annually, triennially

*Estimated Annual Hour Burden per Respondent: 282*

*Estimated Annual Cost per Respondent: $7,942.68*

*Estimated Total Annual Hour Burden: 6,486*

*Estimated Total Annualized Cost: $182,682.00*

**2. Trading Program**

*Respondents/Affected Entities:* Large fossil fuel boilers, turbines and combined cycle units which are included in the $NO_x$ FIP.

*Number of Respondents:* 2313

*Frequency of Response:*

- Emissions reports quarterly for some units, twice during ozone season for others
- Test notifications and allowance transfers on an infrequent basis
- Compliance certifications on an annual basis

*Estimated Annual Hour Burden per Respondent: 107*

*Estimated Annual Cost per Respondent: $6,888*

*Estimated Total Annual Hour Burden:* 249,150

*Estimated Total Annualized Cost: $15,931,033*

Note that these are an average estimate for the first three years of the program. EPA estimates lower costs in the first two years of the program because less units will be participating at that time. The units that will be participating at that time are units that are applying for early reduction credits. EPA also estimates that the highest compliance costs will occur in 2002, when the majority of the units that have to install and certify new monitors to comply with the program will do so. EPA believes that the year 2003 will be more representative of the actual ongoing costs of the program. At that time EPA

estimates a burden of 179 hours per source and a cost of $27,670 per source.

**3. Non-Trading Sources Regulated**

*Respondents/Affected Entities:* Large stationary internal combustion engines and cement manufacturing which are included in the $NO_x$ FIP.

*Number of Respondents:* 363

*Frequency of Response:*

- emissions reports either quarterly during the ozone season or annually

*Estimated Annual Hour Burden per Respondent: 464*

*Estimated Annual Cost per Respondent: $33,303*

*Estimated Total Annual Hour Burden: 168,390*

*Estimated Total Annualized Cost:* $12,089,000

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 are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division, US Environmental Protection Agency (2137), 401 M St., SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA." Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after [insert date of publication in the Federal Register], a comment to OMB is best assured of having its full effect if OMB receives it by [insert date 30 days after publication in the Federal Register]. The final rule will respond to any OMB or public comments on the information collection requirements

contained in this proposal.

## E. Executive Order 13045 : Protection of Children from Environmental Health Risks and Safety Risks

### 1. Applicability

The Executive Order 13045 applies to any rule that EPA determines is (i) “economically significant” as defined under Executive Order 12866, and (ii) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must 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. This proposed rule is not subject to Executive Order 13045, entitled “Protection of Children from Environmental Health Risks and safety Risks (62 FR 19885, April 23, 1997), because it does not involve decisions on environmental health risks or safety risks that may disproportionately affect children.

### 2. Children’s Health Protection

In accordance with section 5(501), the Agency has evaluated the environmental health or safety effects of the rule on children, and found that the rule does not separately address any age groups. However, the Agency has

conducted a general analysis of the potential changes in ozone and particulate matter levels experienced by children as a result of the $NO_x$ SIP call; these findings are presented in the RIA. The findings include projected ozone concentrations for every hour of the day, and projected annual average and daily peak particulate matter nominally 10m and less ($PM_{10}$) and particulate matter nominally 15m and less ($PM_{2.5}$) concentrations in every grid cell in the modeling domain. The EPA has mapped these concentrations to the census-derived population projections for these cells to arrive at a population-weighted exposure characterization. The census data for each cell have been broken down by age, race, and socioeconomic status.

**F. Executive Order 12898 Environmental Justice**

Executive Order 12848 requires that each Federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minorities and low-income populations. The Agency has conducted a general analysis of the potential changes in ozone and PM levels experienced by minorities and low-income populations as a result of the $NO_x$ SIP call; these findings are presented in the RIA. The findings include projected ozone concentrations for every hour of the

day, and projected annual average and daily peak $PM_{10}$ and $PM_{2.5}$ concentrations in every grid cell in the modeling domain. The EPA has mapped these concentrations to the census-derived population projections for these cells to arrive at a population-weighted exposure characterization. The census data for each cell has been broken down by age, race, and socioeconomic status.

## G. Executive Order 12875: Enhancing the Intergovernmental Partnership

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments or EPA consults with those governments. If the mandate is unfunded, EPA must provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments "to provide meaningful and timely input in the development of

regulatory proposals containing significant unfunded mandates."

The EPA has concluded that this rule may create a mandate on State and local governments and that the Federal government will not provide the funds necessary to pay the direct costs incurred by the State and local governments in complying with the mandate. In order to provide meaningful and timely input in the development of this regulatory action, EPA has sent letters to five national associations whose members include elected officials. The letters provide background information, request the associations to notify their membership of the proposed rulemaking, and encourage interested parties to comment on the proposed actions by sending comments during the public comment period and presenting testimony at the public hearing on the proposal. Any comments will be taken into consideration as the action moves toward final rulemaking.

In addition, during the NOx SIP call, EPA provided direct notification to potentially affected State and municipally-owned utilities as part of the public comment and hearing process attendant to proposal of the NOx SIP call and supplemental notice of proposed rulemaking. These procedures helped ensure that small governments had an opportunity to give timely input and obtain information on compliance. EPA provided the 26 State- and municipality-

owned utilities and appropriate elected officials with a brief summary of the proposal and the estimated impacts. The public rulemaking also elicited numerous comments from State and municipal utilities and groups representing utility interests.

**H. Executive Order 13084: Consultation and Coordination with Indian Tribal Governments**

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments. if the mandate is unfunded, EPA must provide to the office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect

their communities."

Today’s rule does not significantly or uniquely affect the communities of Indian tribal governments and, in any event, will not impose substantial direct compliance costs on such communities. The EPA is not aware of sources located on tribal lands that could be subject to the requirements EPA is proposing in this notice. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply.

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

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

This proposed rulemaking would require all sources that participate in the trading program under proposed part 97 to meet the applicable monitoring requirements of part 75.

Part 75 already incorporates a number of voluntary consensus standards. In addition, EPA's proposed revisions to part 75 proposed to add two more voluntary consensus standards to the rule (see 63 FR at 28116-17, discussing ASTM D5373-93 "Standard Methods for Instrumental Determination of Carbon, Hydrogen and Nitrogen in laboratory samples of Coal and Coke," and API section 2 "Conventional Pipe Provers" from Chapter 4 of the Manual of Petroleum Measurement Standards, October 1988 edition). EPA's proposed part 75 revisions also requested comments on the inclusion of additional voluntary consensus standards. EPA has recently finalized revisions to part 75 addressing some of the topics raised in EPA's proposed revisions to part 75. As part of this rule finalization, EPA incorporated two new voluntary consensus standards, in response to comments submitted on the proposed part 75 revisions related to other issues:

(i) American Petroleum Institute (API) Petroleum Measurement Standards, Chapter 3, Tank Gauging: section 1A, Standard Practice for the Manual Gauging of Petroleum and Petroleum Products, December 1994; section 1B, Standard Practice for Level Measurement of Liquid Hydrocarbons in Stationary Tanks by Automatic Tank Gauging, April 1992 (reaffirmed January 1997); section 2, Standard Practice for Gauging Petroleum and Petroleum Products in Tank Cars, September 1995; section 3, Standard Practice for Level

Measurement of Liquid Hydrocarbons in Stationary Pressurized Storage Tanks by Automatic Tank Gauging, June 1996; section 4, Standard Practice for Level Measurement of Liquid Hydrocarbons on Marine Vessels by Automatic Tank Gauging, April 1995; and section 5, Standard Practice for Level Measurement of Light Hydrocarbon Liquids Onboard Marine Vessels by Automatic Tank Gauging, March 1997; and

(ii) Shop Testing of Automatic Liquid Level Gages, Bulletin 2509 B, December 1961 (Reaffirmed October 1992), for §75.19.

The EPA intends to finalize other revisions to part 75 in the near future and address comments related to the proposed voluntary consensus standards and to additional voluntary consensus standards at that time.

This proposed rulemaking would require the owners and operators of cement kilns and stationary internal combustion engines to demonstrate compliance with the requirements set forth in part 98 using monitoring provisions set forth in part 60. Part 60 incorporates a number of voluntary consensus standards. At this time, EPA is not proposing any revisions to part 60, however EPA does periodically revise the test procedures set forth in part 60. When EPA does revise the test procedures set forth in part 60, EPA will address the use of any new voluntary consensus standards that are equivalent.

This proposed rulemaking involves environmental monitoring or measurement. Sources that participate in the trading program would be required to meet the monitoring requirements under part 75. 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. 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 in advance before they may be used under part 75.

The EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation. As part of a larger effort, EPA is undertaking a project to cross-reference existing voluntary consensus standards on testing, sampling, and analysis, with current and future EPA test methods. When completed, this project will assist EPA in identifying potentially-applicable voluntary consensus standards which can then be

evaluated for equivalency and applicability in determining compliance with future regulations.

**List of Subjects**

**40 CFR Part 52**

Environmental protection, Acid rain program, Air pollution control, Nitrogen dioxide, Reporting and recordkeeping requirements.

**40 CFR Part 98**

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

_____ _____

Dated: Carol M. Browner,

Administrator

For the reasons set forth in the preamble, parts 52 and 98 of chapter 1 of title 40 of the Code of Federal Regulations are proposed to be amended as follows:

**PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

**Subpart A--General Provisions [amended]**

2. Subpart A is amended to add § 52.35 to read as follows:

**§ 52.35 Requirements of Federal implementation plan relating to budgets for emissions of nitrogen oxides.**

(a) Failure. The provisions of this section are applicable to sources of emissions of nitrogen oxides ($NO_x$) located within any State that is listed in 40 CFR 51.121(c) and for which EPA has found that the State has:

(1) Failed to submit the State implementation plan revision required by 40 CFR 51.121;

(2) Failed to submit such a plan revision meeting the minimum criteria in 40 CFR 51.103 and Appendix V of part 51; or

(3) Submitted a plan revision that EPA has disapproved as not meeting the requirements of 40 CFR 51.121.

(b) FIP Regulations. The provisions of parts 97 and 98 of this chapter constitute the Federal implementation plan provisions for each State described in paragraph (a) of this

section. These provisions do not invalidate or otherwise affect the obligations of States, emissions sources or other persons with respect to all portions of plans approved or promulgated under this part, nor the obligations of States under the requirements of 40 CFR 51.121 and 40 CFR 51.122.

**Subpart B--Alabama**

3. Subpart B is amended to add § 52.64 to read as follows:

**§ 52.64 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Alabama and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart H--Connecticut**

4. Subpart H is amended to add § 52.377 to read as follows:

**§ 52.377 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Connecticut and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart I--Delaware**

5. Subpart I is amended to add § 52.425 to read as follows:

**§ 52.425 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Delaware and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart L--Georgia**

6. Subpart L is amended to add § 52.584 to read as follows:

**§ 52.584 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Georgia and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart O--Illinois**

7. Subpart O is amended to add § 52.723 to read as follows:

**§ 52.723 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Illinois and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart P--Indiana**

8. Subpart P is amended to add § 52.774 to read as follows:

**§ 52.774 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$

source located within the State of Indiana and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart S--Kentucky**

9. Subpart S is amended to add § 52.939 to read as follows:

**§ 52.939 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Kentucky and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart V--Maryland**

10. Subpart V is amended to add § 52.1078 to read as follows:

**§ 52.1078 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Maryland and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart W--Massachusetts**

11. Subpart W is amended to add § 52.1166 to read as follows:

**§ 52.1166 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Massachusetts and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart X--Michigan**

12. Subpart X is amended to add § 52.1179 to read as follows:

**§ 52.1179 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Michigan and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart AA--Missouri**

13. Subpart AA is amended to add § 52.1326 to read as follows:

**§ 52.1326 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Missouri and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart FF--New Jersey**

14. Subpart FF is amended to add § 52.1581 to read as follows:

**§ 52.1581 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of New Jersey and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart HH--New York**

15. Subpart HH is amended to add § 52.1684 to read as follows:

**§ 52.1684 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of New York and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart II--North Carolina**

16. Subpart II is amended to add § 52.1779 to read as follows:

**§ 52.1779 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of North Carolina and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart KK--Ohio**

17. Subpart KK is amended to add § 52.1874 to read as follows:

**§ 52.1874 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Ohio and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart NN--Pennsylvania**

18. Subpart NN is amended to add § 52.2031 to read as follows:

**§ 52.2031 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Pennsylvania and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart OO--Rhode Island**

19. Subpart OO is amended to add § 52.2082 to read as follows:

**§ 52.2082 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Rhode Island and for which requirements are set forth in parts 97 or 98 of this

chapter must comply with such applicable requirements.

**Subpart PP--South Carolina**

20. Subpart PP is amended to add § 52.2135 to read as follows:

**§ 52.2135 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of South Carolina and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart RR--Tennessee**

21. Subpart RR is amended to add § 52.2232 to read as follows:

**§ 52.2232 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Tennessee and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart VV--Virginia**

22. Subpart VV is amended to add § 52.2429 to read as follows:

**§ 52.2429 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$

source located within the State of Virginia and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart XX--West Virginia**

23. Subpart XX is amended to add § 52.2529 to read as follows:

**§ 52.2529 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of West Virginia and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart YY--Wisconsin**

24. Subpart YY is amended to add § 52.2576 to read as follows:

**§ 52.2576 Interstate pollutant transport provisions; requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the State of Wisconsin and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

**Subpart J--District of Columbia**

25. Subpart J is amended to add § 52.475 to read as follows:

**§ 52.475 Interstate pollutant transport provisions;**

**requirements for decreases in emissions of nitrogen oxides.**

FIP Regulations. The owner or operator of each $NO_x$ source located within the District of Columbia and for which requirements are set forth in parts 97 or 98 of this chapter must comply with such applicable requirements.

26. Part 98 is added to read as follows:

**Part 98--Nitrogen Oxides ($NO_x$) Budget Program Requirements for Stationary Sources Not In the Trading Program.**

**Sec.**

**Subpart A--Emissions of $NO_x$ from Stationary Reciprocating Internal Combustion Engines.**

**§ 98.1 Applicability.**

**§ 98.2 Definitions.**

**§ 98.3 Standard requirements.**

**§ 98.4 Compliance determination.**

**§ 98.5 Reporting, monitoring and recordkeeping.**

**§ 98.6 Exemptions.**

**Subpart B--Emissions of $NO_x$ from Cement Manufacturing.**

**§ 98.41 Applicability.**

**§ 98.42 Definitions.**

**§ 98.43 Standard requirements.**

**§ 98.44 Reporting, monitoring and recordkeeping.**

**§ 98.45 Exemptions.**

**Part 98-- Nitrogen Oxides ($NO_x$) Budget Program Requirements**

**for Stationary Sources Not In the Trading Program.**

**Authority:** 42 U.S.C. 7401-7671q.

**Subpart A--Emissions of $NO_x$ from Stationary Reciprocating Internal Combustion Engines**.

**§ 98.1 Applicability.**

(a) Any owner or operator of a rich burn stationary internal combustion engine rated at equal to or greater than 2,400 brake horsepower shall comply with the applicable requirements of this section and § 98.2 through § 97.6.

(b) Any owner or operator of a lean burn stationary internal combustion engine rated at equal to or greater than 2,400 brake horsepower shall comply with the applicable requirements of this section and § 98.2 through § 98.6.

(c) Any owner or operator of a diesel stationary internal combustion engine rated at equal to or greater than 3,000 brake horsepower shall comply with the applicable requirements of this section and § 98.2 through § 98.6.

(d) Any owner or operator of a dual fuel stationary internal combustion engine rated at equal to or greater than 4,400 brake horsepower shall comply with the applicable requirements of this section and § 98.2 through § 98.6.

**§ 98.2 Definitions.**

For the purposes of this subpart, the following definitions shall apply.

(a) Diesel engine means a compression ignited two- or

four-stroke engine in which liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition.

(b) Dual fuel engine means a compression ignited stationary internal combustion engine that is burning liquid fuel and gaseous fuel simultaneously.

(c) Emergency standby engine means an internal combustion engine used only when normal power line or natural gas service fails, or for the emergency pumping of water for either fire protection or flood relief. An emergency standby engine may not be operated to supplement a primary power source when the load capacity or rating of the primary power source has been either reached or exceeded.

(d) Engine rating means the output of an engine as determined by the engine manufacturer and listed on the nameplate of the unit, regardless of any derating.

(e) Higher heating value (HHV) means the total heat liberated per mass of fuel burned (Btu per pound), when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to their standard States at standard conditions. If certification of the HHV is not provided by the third party fuel supplier, it shall be determined by one of the following test methods: ASTM D2015-85 for solid fuels; ASTM D240-87 or ASTM D2382-88

for liquid hydrocarbon fuels; or ASTM D1826-88 or ASTM D1945-81 in conjunction with ASTM D3588-89 for gaseous fuels. These methods are all incorporated by reference as specified at 40 CFR 52.3002.

(f) Lean-burn engine means any two- or four-stroke spark-ignited engine that is not a rich-burn engine.

(g) Maintenance operation means the use of an emergency standby engine and fuel system during testing, repair and routine maintenance to verify its readiness for emergency standby use.

(h) Malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

(i) Output means the shaft work output from an engine plus the energy reclaimed by any useful heat recovery system.

(j) Peak load means the maximum instantaneous operating load.

(k) Permitted capacity factor means the annual permitted fuel use divided by the manufacturers specified maximum fuel consumption times 8,760 hours per year.

(l) Rich-burn engine means a two- or four-stroke spark-ignited engine where the manufacturers original recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio is less than or equal to 1.1.

(m) Shutdown means the period of time a unit is cooled from its normal operating temperature to cold or ambient temperature.

(n) Startup means the period of time a unit is heated from cold or ambient temperature to its normal operating temperature as specified by the manufacturer.

(o) Stationary internal combustion engine means any internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from one location to another and remains at a single site at a building, structure, facility, or installation for more than 12 consecutive months. Any engine (or engines) that replaces an engine at a site that is intended to perform the same or similar function as the engine replaced is included in calculating the consecutive time period. Nonroad engines and engines used solely for competition are not stationary internal combustion engines.

(p) Stoichiometric air/fuel ratio means the air/fuel ratio where all fuel and all oxygen in the air/fuel mixture will be consumed.

(q) Unit means any diesel, lean-burn, or rich-burn stationary internal combustion engine as defined in this paragraph.

**§ 98.3 Standard requirements.**

(a) After May 1, 2003, an owner or operator of a unit subject to the standards of this subpart shall not operate the unit May 1 through September 30 of 2003, and any subsequent year unless the owner or operator complies with the requirements of paragraph (a)(1) of this section during May 1 through September 30 of each year.

(1) No owner or operator of a stationary internal combustion engine shall cause to be discharged into the atmosphere any gases that contain $NO_x$ in excess of the following applicable limit, expressed as $NO_2$ corrected to 15 percent parts per million by volume (ppmv) stack gas $O_2$ on a dry basis, averaged over a rolling 30-day period:

(i) Rich-burn, ≥ 2400 bhp: 110 ppmv

(ii) Lean-burn, ≥ 2400 bhp: 125 ppmv

(iii) Diesel, ≥ 3000 bhp: 175 ppmv

(iv) Dual fuel, ≥ 4400 bhp: 125 ppmv

(v) Each emission limit expressed in paragraphs (a)(1)(i) through (iv) of this section may be multiplied by X, where X equals the engine efficiency (E) divided by a reference efficiency of 30 percent. Engine efficiency (E) shall be determined using one of the methods specified in

paragraph (a)(1)(v)(A) or (B) of this section, whichever provides a higher value. However, engine efficiency (E) shall not be less than 30 percent. An engine with an efficiency lower than 30 percent shall be assigned an efficiency of 30 percent.

(A)

$$E = \frac{(Engine\ output) * (100)}{Energy\ input}$$

where energy input is determined by a fuel measuring device accurate to ±5 percent and is based on the higher heating value (HHV) of the fuel. Percent efficiency (E) shall be averaged over 15 consecutive minutes and measured at peak load for the applicable engine.

(B)

$$E = \frac{(Mftrs\ Rated\ Efficiency\ [Continuous]\ at\ LHV) * (LHV)}{(HHV)}$$

where

LHV = the lower heating value of the fuel; and

HHV = the higher heating value of the fuel

**§ 98.4 Compliance determination.**

Any owner or operator of a unit subject to the requirements of § 98.3 shall determine compliance using a continuous emissions monitoring system (CEMS) which meets the applicable requirements of Appendices B and F of 40 CFR part 60, excluding data obtained during periods specified in

§ 98.6.

**§ 98.5 Reporting, monitoring, and recordkeeping.**

(a) Reporting requirements. Any owner or operator subject to the requirements of § 98.3 shall comply with the following requirements:

(1) By May 1, 2003, submit to the Administrator the identification number and type of each unit subject to the section, the name and address of the plant where the unit is located, and the name and telephone number of the person responsible for demonstrating compliance with the section.

(2) Submit a report documenting for that unit the total $NO_x$ emissions from May 1 through September 30 of each year to the Administrator by October 31 of each year, beginning in 2003.

(3) Each owner or operator of a unit subject to this rule and operating a CEMS shall submit an excess emissions and monitoring systems performance report, in accordance with the requirements of 40 CFR 60.7(c) and 60.13.

(b) Monitoring requirements.

(1) Any owner or operator subject to the requirements of § 98.3 shall not operate such equipment unless it is equipped with one of the following:

(i) A CEMS which meets the applicable requirements of 40 CFR part 60, Subpart A, and Appendix B, and complies with the quality assurance procedures specified in 40 CFR part

60, Appendix F. The CEMS shall be used to demonstrate compliance with the applicable emission limit.

(ii) An alternate calculational and recordkeeping procedure based upon actual emissions testing and correlations with operating parameters. The installation, implementation and use of such an alternate calculational and recordkeeping procedure must be approved by EPA in writing prior to implementation.

(2) The CEMS or approved alternate recordkeeping procedure shall be operated and maintained in accordance with an on-site CEMS operating plan approved by EPA.

(c) Recordkeeping requirements.

(1) Any owner or operator of a unit subject to this rule shall maintain all records necessary to demonstrate compliance with the section for a period of 2 calendar years at the plant at which the subject unit is located. The records shall be made available to the Administrator upon request. The owner or operator shall maintain records of the following information for each day the unit is operated:

(i) Identification and location of each engine subject to the requirements of this section.

(ii) Calendar date of record.

(iii) The number of hours the unit is operated during each day including startups, shutdowns, malfunctions, and the type and duration of maintenance and repairs.

(iv) Date and results of each emissions inspection.

(v) A summary of any emissions corrective maintenance taken.

(vi) The results of all compliance tests.

(vii) If a unit is equipped with a CEMS:

(A) Identification of time periods during which $NO_x$ standards are exceeded, the reason for the exceedance, and action taken to correct the exceedance and to prevent similar future exceedances.

(B) Identification of the time periods for which operating conditions and pollutant data were not obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.

**§ 98.6 Exemptions**.

(a) The requirements of §§ 98.3, 98.4, and 98.5 shall not apply to the following periods of operation:

(1) Start-up and shut-down periods and periods of malfunction, not to exceed 36 consecutive hours;

(2) Regularly scheduled maintenance activities.

**Subpart B--Emissions of Nitrogen Oxides from Cement Manufacturing**.

**§ 98.41 Applicability**.

The requirements of this subpart apply only to kilns with process rates of at least the following: long dry kilns - 12 tons per hour (TPH); long wet kilns - 10 TPH; preheater

kilns - 16 TPH; precalciner and preheater/precalciner kilns - 22 TPH .

**§ 98.42 Definitions**.

(a) Clinker means the product of a Portland cement kiln from which finished cement is manufactured by milling and grinding.

(b) Long dry kiln means a kiln 14 feet or larger in diameter, 400 feet or greater in length, which employs no preheating of the feed. The inlet feed to the kiln is dry.

(c) Long wet kiln means a kiln 14 feet or larger in diameter, 400 feet or greater in length, which employs no preheating of the feed. The inlet feed to the kiln is a slurry.

(d) Low-$NO_x$ burners means combustion equipment designed to reduce flame turbulence, delay fuel/air mixing, and establish fuel-rich zones for initial combustion.

(e) Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(f) Mid-kiln firing means the secondary firing in kilns by injecting solid fuel at an intermediate point in the kiln using a specially designed feed injection mechanism for the purpose of decreasing $NO_x$ emissions through (1) burning part

of the fuel at a lower temperature and (2) reducing conditions at the solid waste injection point that may destroy some of the $NO_x$ formed upstream in the kiln burning zone.

(g) Portland cement means a hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates, usually containing one or more of the forms of calcium sulfate as an interground addition.

(h) Portland cement kiln means a system, including any solid, gaseous or liquid fuel combustion equipment, used to calcine and fuse raw materials, including limestone and clay, to produce Portland cement clinker.

(i) Precalciner kiln means a kiln where the feed to the kiln system is preheated in cyclone chambers and utilize a second burner to calcine material in a separate vessel attached to the preheater prior to the final fusion in a kiln which forms clinker.

(j) Preheater kiln means a kiln where the feed to the kiln system is preheated in cyclone chambers prior to the final fusion in a kiln which forms clinker.

(k) Shutdown means the cessation of operation of a Portland cement kiln for any purpose.

(l) Startup means the setting in operation of a Portland cement kiln for any purpose.

**§ 98.43 Standard requirements.**

(a) After May 1, 2003, an owner or operator of any Portland cement kiln subject to this rule shall not operate the kiln during May 1 through September 30 unless the kiln has installed and operates during May 1 to September 30 with low-$NO_x$ burners, mid-kiln firing, or alternative control techniques, subject to EPA approval, that achieve at least the same emissions decreases as low-$NO_x$ burners or mid-kiln firing.

**§ 98.44 Reporting, monitoring and recordkeeping**.

(a) Reporting requirements. Any owner or operator subject to the requirements of § 98.43 shall comply with the following requirements:

(1) By May 1, 2003, submit to the Administrator the identification number and type of each unit subject to the section, the name and address of the plant where the unit is located, and the name and telephone number of the person responsible for demonstrating compliance with the section.

(2) Submit a report documenting for that unit the total $NO_x$ emissions from May 1 through September 30 of each year to the Administrator by October 31 of each year, beginning in 2003.

(b) Monitoring Requirements.

(1) Any owner or operator of a unit subject to this rule shall complete an initial performance test and subsequent annual testing consistent with the requirements

of 40 CFR part 60, Appendix A, Method 7, 7A ,7C, 7D, or 7E.

(c) Recordkeeping Requirements. Any owner or operator of a unit subject to this rule shall produce and maintain records which shall include, but are not limited to:

(1) The emissions, in pounds of $NO_x$ per ton of clinker produced from each affected Portland cement kiln.

(2) The date, time and duration of any startup, shutdown or malfunction in the operation of any of the cement kilns or the emissions monitoring equipment.

(3) The results of any performance testing.

(4) Daily cement kiln production records.

(5) All records required to be produced or maintained shall be retained on site for a minimum of 2 years and be made available to the EPA or State or local agency upon request.

**§ 98.45 Exemptions**. The requirements of §§ 98.43, 98.44, and 98.45 shall not apply to the following periods of operation:

(a) Start-up and shut-down periods and periods of malfunction, not to exceed 36 consecutive hours;

(b) Regularly scheduled maintenance activities.