

US EPA ARCHIVE DOCUMENT

## ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2004-0076; FRL ]

**Final Notice of Data Availability for EGU NO<sub>x</sub> Annual  
and NO<sub>x</sub> Ozone Season Allocations for the Clean Air  
Interstate Rule Federal Implementation Plan Trading  
Programs.**

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

**ACTION:** Notice of data availability (NODA)

**SUMMARY:** On March 15, 2006, EPA promulgated Federal Implementation Plans (FIPs) for all States covered by the Clean Air Interstate Rule (CAIR). The CAIR FIPs will regulate electric generating units (EGUs) in the affected States and achieve the emission reductions required by CAIR until each affected State has an approved CAIR State Implementation Plan (SIP) to achieve the reductions. EPA will withdraw a State's FIP in coordination with approval of a full CAIR SIP implementing the requirements of CAIR.

The CAIR FIP indicates that the Administrator will determine by order the CAIR NO<sub>x</sub> allowance allocations. In the CAIR FIP, EPA stated that it would publish a NODA with NO<sub>x</sub> allowance allocations for 2009 through 2014, provide the public with the opportunity to object to the allocations and underlying data, and then publish a final NODA

(adjusted if necessary). On August 4, 2006, EPA published a preliminary NODA in the Federal Register and accepted objections to the data through an electronic docket. This action constitutes the final NODA and indicates the existing units receiving CAIR NO<sub>x</sub> allowances under the FIPs and the quantity of allowances to be allocated to each unit. These FIP allowances will only be recorded for sources located in States that do not have an approved SIP in place. Most States have an approved SIP in place, and the State determined allowances will be recorded for sources in these states.

In this NODA, the EPA is making available to the public the Agency's final determination of the NO<sub>x</sub> annual and NO<sub>x</sub> ozone season allocations under the CAIR FIPs that EPA is making to individual existing units under the CAIR FIP NO<sub>x</sub> annual and NO<sub>x</sub> ozone season trading programs for 2009 through 2014, as well as the data relating to those allocations. The NODA references, or presents in tables, all these data and the NO<sub>x</sub> annual and NO<sub>x</sub> ozone season allowance allocations calculated using the data and the allocation formulas finalized in the CAIR FIPs for existing units for 2009 through 2014.

**DATES:** The recordation deadline for 2009 CAIR FIP NO<sub>x</sub> allowances is September 30, 2007. EPA intends to record CAIR FIP NO<sub>x</sub> allowances in the fall of 2007. EPA is close to taking final action on many SIPs. Because it is EPA's preference to have States determine allowances, EPA is trying to finalize these approvals before allocating FIP allowances, so wherever possible, State-determined allowances will be allocated to sources.

**DOCKET:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2004-0076. All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, i.e., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the EPA Docket Center, EPA West, Room 3334, 1301 Constitution Avenue, NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m, Monday through Friday, excluding legal holidays. The telephone

number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

**For Further Information Contact:** General questions concerning this action and technical questions concerning heat input or fuel data should be addressed to Brian Fisher, USEPA Headquarters, Ariel Rios Building, 1200 Pennsylvania Ave., Mail Code 6204 J, Washington, DC 20460. Telephone at (202) 343-9633, email at fisher.brian@epa.gov. If mailing by courier, address package to Brian Fisher, 1310 L St., NW, RM # 713G, Washington, DC 20005.

**SUPPLEMENTARY INFORMATION:**

**Outline:**

1. General Information.
2. What Is this Action?
3. How Are the Data in this NODA Related to the CAIR FIP NO<sub>x</sub> Allowance Allocations?
4. What Are the Sources of the EPA's Data?
5. How do I Interpret the Data Tables Presented through this NODA?
6. Is the EPA Requesting Objections to these Data?
7. What Data Is EPA making available?
8. Where can I get the Data Discussed in this NODA?

**1 General Information**

This action relates to §§97.141 and 97.341 of the CAIR FIP. These sections indicate that the Administrator will determine by order the CAIR NO<sub>x</sub> allowance allocations. In the CAIR FIP, EPA stated that it would publish a NODA with

NO<sub>x</sub> allowance allocations for 2009 through 2014 (71 FR 25352).

***Does this Action Apply to Me?***

Categories and entities potentially regulated by this action include the following:

Category	NAICS code	Examples of potentially regulated entities
Industry	221112	Fossil fuel-fired electric utility steam generating units
Federal Government	221122	Fossil fuel-fired electric utility steam generating units
State/local/Tribal government	221122  921150	Fossil fuel-fired electric utility steam generating units owned by municipalities.  Fossil fuel-fired electric utility

		steam generating units in Indian Country.
--	--	---

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. If you have any questions regarding the applicability of this action to a particular entity, review §§97.102, 97.104, and 97.105 in the CAIR FIP concerning NO<sub>x</sub> annual emissions and §§97.302, 97.304, and 97.305 in the CAIR FIP concerning NO<sub>x</sub> ozone season emissions. You may also consult the person listed in the preceding section under "for further information contact."

The NO<sub>x</sub> allowance allocations in this NODA are for existing units. Existing units are units that commenced operation before January 1, 2001. New units, which commence operation on or after January 1, 2001, will initially receive allowances through the new unit set aside. Once new units have established a five year baseline, they will be incorporated into the calculation for allowances for existing units for future years to the

extent the allowances for existing units have not already been allocated.

The CAIR FIP rule states units will be subject to the CAIR FIP trading programs (i.e., to the CAIR FIP SO<sub>2</sub>, NO<sub>x</sub> annual, or NO<sub>x</sub> ozone season programs, as appropriate) if they are a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine serving at any time on or after November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale. Certain cogeneration units or solid waste incineration units meeting these general applicability requirements are exempt from the CAIR FIPs and are described below. The inventory of existing potential CAIR units, which comprises the units allocated allowances under this NODA, is based on EPA's preliminary application of the general applicability requirements and these exemptions. As discussed in the preliminary NODA and in this action, the inventory does not reflect a final determination of which units are subject to the CAIR FIPs.

#### **Cogeneration Unit Exemption**

Certain cogeneration units meeting the general applicability requirements are exempt from the CAIR FIP

trading programs. Cogeneration units are units having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through sequential use of energy and meeting certain operating and efficiency standards. Any cogeneration unit not serving at any time (since the later of November 15, 1990 or the start-up of the unit) a generator with a nameplate capacity greater than 25 MWe, supplying more than 1/3 potential electric output capacity, and more than 219,000 Mw-hrs, annually to any utility power distribution system for sale is exempt from the requirements of the CAIR FIP trading rules. Otherwise, a cogeneration unit meeting the general applicability requirements is subject to the CAIR FIPs.

The CAIR FIP defined "cogeneration unit" as a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine:

- (1) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and
- (2) Producing during the 12-month period starting on the date the unit first produces electricity and during any

calendar year after the calendar year in which the unit first produces electricity -

(i) For a topping-cycle cogeneration unit,

(A) Useful thermal energy not less than 5 percent of total energy output; and

(B) Useful power that, when added to one-half of useful thermal energy produced, is not less than 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.

(ii) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.

Subsequent to the CAIR FIP rulemaking, EPA finalized another action that modified the definition of "cogeneration unit" (and made other revisions to the definitions under the CAIR FIPs) to exclude energy input from biomass fuel when calculating efficiency of cogeneration units that are boilers. This makes it possible for some additional cogeneration units that co-fire biomass to qualify for exemption from the CAIR FIP rules. The inventory of existing potential CAIR units and the allocation tables in this action that are based on the

inventory reflect EPA's preliminary application of the revised cogeneration unit definition and the other revisions to the definitions under the CAIR FIPs.

#### **Solid Waste Incinerator Exemption**

A solid waste incineration unit meeting the general applicability requirements and commencing operation before January 1, 1985, for which the average annual fuel consumption of non-fossil fuels during 1985-1987 exceeded 80 percent and the average annual fuel consumption of non-fossil fuels during any 3 consecutive calendar years after 1990 exceeds 80 percent, is not subject to the CAIR FIP cap-and-trade program. Further, a solid waste incineration unit meeting the general applicability requirements and commencing operation on or after January 1, 1985, for which the average annual fuel consumption of non-fossil fuels for the first 3 calendar years of operation exceeds 80 percent and the average annual fuel consumption of non-fossil fuels during any 3 consecutive calendar years after 1990 exceeds 80%, is not subject to the CAIR FIP cap-and trade program. The inventory of existing potential CAIR units, and the allocation tables in this action that are based on the inventory, reflect EPA's preliminary application of the solid waste incineration unit exemption.

## 2 What Is this Action?

In the March 15, 2006 final action on the CAIR FIP, the EPA finalized NO<sub>x</sub> annual and ozone season trading programs for EGUs as the federal implementation remedy for CAIR. The EPA decided to adopt, as the FIP for each State in the CAIR region, the model cap-and-trade programs in the final CAIR, modified slightly to allow for federal instead of State implementation (as revised March 15, 2006).

These programs include a NO<sub>x</sub> annual trading program and NO<sub>x</sub> ozone season trading program. As explained in the CAIR FIP Notice of Final Rulemaking (NFR), the FIP NO<sub>x</sub> annual and NO<sub>x</sub> ozone season trading programs require CAIR sources to hold allowances sufficient to cover their emissions for each control period. A CAIR NO<sub>x</sub> annual allowance will authorize the emission of a ton of NO<sub>x</sub> during a calendar year, and a CAIR NO<sub>x</sub> ozone season allowance will authorize the emission of a ton of NO<sub>x</sub> during an ozone season (May 1 through September 30).

In the CAIR FIP NFR, EPA adopted the State NO<sub>x</sub> annual and NO<sub>x</sub> ozone season emission budgets for each State covered by a CAIR FIP (see Tables V-1 and V-2 in the CAIR FIP NFR); these are the same State emission budgets as finalized in

the CAIR. For each State covered by the CAIR FIP NO<sub>x</sub> trading programs, the State NO<sub>x</sub> budgets are the total amount of allowances that EPA will allocate to sources in that State for use in the FIP NO<sub>x</sub> trading programs. EPA determined the method for allocating NO<sub>x</sub> annual and NO<sub>x</sub> ozone season allowances under the FIP through a process that included extensive public participation.

In this action, we are finalizing the inventory of existing units that currently are potential CAIR units solely for purposes of allocating allowances for 2009-2014, the heat input, fuel type, and resulting baseline heat input data used to calculate the NO<sub>x</sub> allowance allocation to the identified existing potential CAIR units under the CAIR FIPs, and the resulting allowance allocations themselves for 2009-2014.<sup>1</sup>

The inventory of existing potential CAIR units was proposed, and is finalized, only for the purpose of making allocations for 2009-2014. The inventory, and the data on which the inventory is based, can be revised in future NODAs addressing allocations. Furthermore, the inclusion of a unit in the inventory (and thus in the FIP allocations

---

<sup>1</sup> EPA notes that if, subsequent to this NODA, a determination is made that a source included in this inventory is not subject to CAIR, then the Administrator will deduct any unused allocated allowances as established in the procedures set forth in §§97.154(b) and 97.354(b), and transfer them to a new unit set-aside for the appropriate State.

for 2009-2014) does not constitute a determination that the unit is subject to the requirements of the CAIR FIPs; similarly, the exclusion of a unit from the inventory (and thus from the allowance allocations for 2009-2014) does not constitute a determination that the unit is not covered by the CAIR FIPs. However, EPA has made specific determinations for certain individual units, for which objections concerning the inclusion in or exclusion from the inventory were submitted in response to this NODA or for which a request for an applicability determination was submitted under §97.104(c) or 97.304(c) are covered by a CAIR FIP. These determinations are binding, subject to any conditions set forth in the respective determinations and to any administrative appeals under Part 78 of EPA's regulations. Copies of these determinations are included in the docket for this NODA.

EPA notes that, in some cases where objections to the inclusion of a unit in or exclusion of a unit from the inventory were submitted in response to this NODA or where a request for an applicability determination was submitted under §97.104(c) or 97.304(c), EPA issued an applicability determination that is used in developing the final inventory, and is included in the docket, for this NODA.

However, in some cases EPA was unable to complete the applicability determination in time for issuance of this NODA. In the latter cases, the units are being included in the inventory of potential existing CAIR units and allocated allowances in this NODA. However, EPA intends to complete the process of issuing an applicability determination in each of these cases in the relatively near future. The inclusion of these units in the inventory in no way indicates what applicability determination EPA will make and whether the units are subject to the CAIR FIPs. In fact, as discussed below, the CAIR FIPs include procedures for addressing units that are allocated CAIR FIP allowances but are subsequently determined not to be subject to the CAIR FIPs.

This action explains what heat input and fuel type data, and resulting baseline heat inputs, are used in calculating the allocation for each potential existing unit and from where these data came. The EPA published a draft NODA in 2006 to provide opportunity for the public (including source owners and operators) to submit objections to the underlying data (including the resulting baseline heat inputs and allocations). This action incorporates data submitted through those objections if the

data were determined to be the best available data. Under the CAIR FIP trading rules (40 CFR 97.142(a)(3) and 97.342(a)(3)), we explained that we determine what data are the best available by "weighing the likelihood that data are accurate and reliable and giving greater weight to data submitted to a governmental entity in compliance with legal requirements or substantiated by an independent entity." For existing potential CAIR units, this NODA represents the final determination of the heat input and fuel type data used in the allocations for 2009-2014. Similarly, this NODA represents the final determination of the 2009-2014 allocations themselves. However, EPA will issue NODAs in the future to address CAIR FIP allocations for 2009-2014 for new potential CAIR units and for 2015 and thereafter for existing and new potential CAIR units and will provide an opportunity for objections.

The Agency's preference is for States to make decisions about NO<sub>x</sub> allocations for their sources. Although in this action EPA is determining NO<sub>x</sub> allocations for the CAIR FIP trading programs, we intend to record EPA-determined allocations in allowance accounts only for sources located in a State without a timely, approved CAIR SIP revision or a timely, approved abbreviated CAIR SIP

revision providing for State-determined allocations. In future NODAs, EPA intends to determine allowance allocations only for States subject to the FIP at that time.

Deadlines for States to submit CAIR SIP revisions and associated NO<sub>x</sub> allocations and for EPA to record NO<sub>x</sub> allocations in source accounts are as finalized in the CAIR (see 70 FR 25162, 25323 and 25326) and CAIR FIP (see 71 FR 25328, 25352 - 55). EPA discusses these deadlines herein for informational purposes only. As finalized in the CAIR and CAIR FIP NFRs, SIP submission deadlines are as follows:

- Full CAIR SIP revision: submit SIP revision by September 11, 2006 and initial set of NO<sub>x</sub> allocations (covering at least 2009 through 2011) by October 31, 2006;
- Abbreviated CAIR SIP revision<sup>2</sup>: submit SIP revision by March 31, 2007 and initial set of NO<sub>x</sub> allocations (covering at least 2009 through 2011) by April 30, 2007.

In this action EPA determines CAIR NO<sub>x</sub> allocations covering 2009 through 2014 under the CAIR FIPs. As finalized in the CAIR FIP NFR, the Agency will record EPA-determined CAIR NO<sub>x</sub> allocations in source accounts one year at a time for 2009 and 2010 in order to provide flexibility

---

<sup>2</sup> See CAIR FIP NFR (71 FR 25352) for further discussion of abbreviated CAIR SIP revisions.

to States to determine allocations for their sources. The final schedule for recording CAIR NO<sub>x</sub> allocations under the FIP in source accounts is shown in Table VI-2 in the CAIR FIP NFR preamble and reproduced here for informational purposes:

**TABLE I - Recordation Deadlines for CAIR FIP NO<sub>x</sub> Allocations**

CAIR Control Period	Deadline by which FIP NO <sub>x</sub> Allocations Are Recorded (EPA-determined allocations or State-determined allocations using abbreviated CAIR SIP revision)
2009	September 30, 2007*
2010	September 30, 2008
2011	September 30, 2009
2012	September 30, 2009
2013	September 30, 2009
2014	December 1, 2010
2015	December 1, 2011
2016	December 1, 2012

\* EPA intends to records these allowances in the Fall of 2007.

**3 How Are the Data in this NODA Related to the CAIR FIP NO<sub>x</sub> Allowance Allocations?**

In the CAIR FIP NFR, EPA finalized the schedule for determining and recording NO<sub>x</sub> allocations. EPA also finalized a methodology for calculating unit level NO<sub>x</sub> allowances. This NODA provides the unit level NO<sub>x</sub>

allocations for existing potential CAIR units for 2009 through 2014 calculated using this methodology, as well as the data used in determining the inventory of existing potential CAIR units and the heat input and fuel type data and resulting baseline heat inputs, used in making the allowance calculations.

As provided in the CAIR FIP NO<sub>x</sub> annual and ozone season trading rules (see 40 CFR 97.141 and 97.341), EPA is publishing this NODA with CAIR FIP NO<sub>x</sub> allocations for existing potential CAIR units for 2009 through 2014. This final NODA reflects EPA's consideration of objections submitted to the 2006 CAIR FIP NODA that addressed whether any individual unit is treated as an existing potential CAIR unit eligible for allowance allocations in accordance with the applicability provisions in these trading rules (see 40 CFR 97.104 and 97.305) and whether any unit allocation is determined in accordance with the allocation provisions in these trading rules (see 40 CFR 97.142 and 97.342).

In the CAIR FIP NFR, EPA finalized an allocation approach for NO<sub>x</sub> annual and ozone season allowances for existing units (i.e, units commencing operation before January 1, 2001) and new units (i.e, units commencing

operation on or after January 1, 2001) that is consistent with the example methodology in the CAIR SIP model trading rules. EPA used the NO<sub>x</sub> allocation method finalized in the FIP NFR to calculate the existing unit NO<sub>x</sub> allocations in this NODA. This action does not address new unit allocations. New unit allocation and recordation provisions under the CAIR FIP may be found in §§ 97.141, 97.341, 97.153 and 97.353. See 71 FR 25356-58 for detailed description of the allocation method. EPA will publish a preliminary and final NODA in 2009 for new unit allowance allocations for 2009.

The NO<sub>x</sub> allocation method in the CAIR FIP NFR was finalized through a process that involved significant public participation. The NO<sub>x</sub> CAIR FIP NODA did not open the allocation method for public comment. EPA provides a summary of the NO<sub>x</sub> allocation method herein for informational purposes only.

Allocations in this NODA are for existing units for the first 6 control periods (2009 through 2014) of the CAIR NO<sub>x</sub> annual and NO<sub>x</sub> ozone season trading programs. The 2009 allowance allocations will be recorded in the fall of 2007. It is possible that future year allowance allocations (2010 through 2014) will differ from those in this NODA as new

potential CAIR units develop baseline heat input values and are treated as existing potential CAIR units, and as units that are not potential CAIR units become potential CAIR units. The NO<sub>x</sub> allocation method finalized in the CAIR FIP NFR allocates by using annual heat input data from the years 2000 through 2004 to develop baseline heat inputs. The annual heat input values are adjusted using fuel adjustment factors (1.0 for coal-fired units, 0.6 for oil-fired units, and 0.4 for units fired with all other fuels (e.g., natural gas)). The 3 highest annual heat input values for the unit are averaged to determine the unit's baseline heat input. Finally, the total amount of allowances available for allocation each year to existing units in a given State (i.e., 95% of the State trading budget) is allocated to each individual unit in proportion to the unit's share of the total baseline heat input for all existing potential CAIR units in the State. The same methodology applies for ozone season allowances, only ozone season heat input is used in place of annual heat input.

This NODA provides unit NO<sub>x</sub> allocations calculated according to the method finalized in the CAIR FIP NFR. Section 8 of this NODA describes where to locate the allocation tables. The heat input and fuel type data used

to determine these allocations are described in section 4 of this NODA.

#### **4 What Are the Sources of EPA's Data?**

##### **A. Development of the Inventory of Existing Potential CAIR Units**

Diagram 1 in the Technical Support Document (TSD) provides a general overview of how the inventory of existing potential CAIR units was developed. Any existing unit currently reporting monitoring data under the Acid Rain Program (referred to in this NODA as "Acid Rain units") in a CAIR FIP State, except for an Acid Rain Program opt-in unit, was included as an existing potential CAIR unit. The list of Acid Rain units in the States was generated from EPA's Acid Rain Program database. Units not reporting monitoring data under the Acid Rain Program (referred to in this NODA as "non-Acid Rain units") that are existing potential CAIR units were identified using data reported by owners of generators to the Energy Information Administration (EIA) on forms 860 and 767 or through objections submitted by the source owners and operators.

From the EIA form 860 database, EPA identified, for non-Acid Rain units, all generators with a nameplate

capacity greater than 25 MWe served by a boiler or turbine with a fossil fuel energy source. In determining whether a unit has a fossil fuel energy source, EPA applied the definition of "fossil fuel" in the CAIR FIPs (40 CFR 97.102 and 97.302). From that list we then excluded generators as follows:

- EPA excluded non-utility generators which did not sell electricity to a utility based on EIA form 860b data from 1999 and 2000. EIA form 860b sales data were not available after 2000 due to changes in the EIA form 860b. Consequently, the exclusion of generators for purposes of allocating allowances in this NODA does not necessarily mean that these generators are excluded for purposes of determining whether boilers or turbines serving them are subject to the CAIR FIPs. EPA believes, based on preliminary consideration of the applicability provisions of the CAIR FIPs, that many of these units may not be subject to the CAIR FIPs. However, if, on or after November 15, 1990, any of these generators produced electricity that was sold, the units serving that generator may be subject to the CAIR FIPs.

- From EIA form 860, EPA excluded generators at municipal waste combustors. The CAIR rule provides an exemption for solid waste incineration units similar to the Acid Rain Program exemption in 40 CFR Part 72.
- From EIA form 860b (1999 and 2000), EPA excluded all generators at facilities that were certified (in accordance with Federal Energy Regulatory Commission (FERC) regulations) as qualifying cogeneration facilities and that had annual, plant-wide sales of one third or less of the potential generating capacity, or had annual sales less than 219,000 MW-hrs, to an electric utility. This information was only available at the plant level. Since electricity sales data were not available at the unit level for other years and a unit must meet these criteria annually to qualify for the cogeneration exemption, exclusion of generators for allocating allowances in this notice does not necessarily mean that boilers and combustion turbines serving the generators are not subject to the CAIR FIPs. Moreover, FERC regulations require, as part of the criteria for qualifying cogeneration facilities that facilities meet certain efficiency requirements to the extent natural gas or

oil is combusted. Under CAIR, a unit must meet the efficiency requirements with regard to all fuel types combusted, except, in the case of boilers, biomass. Consequently, exclusion of generators for allocating allowances in this notice does not necessarily mean that boilers and combustion turbines serving the generators are not subject to the CAIR FIPs.

From the EIA form 767 database, EPA identified as potential CAIR units all boilers located at non-Acid Rain plants (commencing operation before January 1, 2001) serving the generators remaining on the generator list after the above-described exclusions. Simple and combined cycle combustion turbines were identified based directly on the generator ID and prime mover type in EIA form 860.

From EIA form 860 EPA identified all simple combustion turbines, at Acid Rain plants, with a nameplate capacity greater than 25 MWe, a fossil fuel energy source, and an online date prior to January 1991. These simple combustion turbines are potential CAIR units even though they may be non-Acid Rain units since they have reported to EIA that they sell electricity to a utility based on utility ownership or EIA form 860b data from 1999 and 2000 and serve a generator greater than 25 MWe.

The resulting list of non-Acid Rain units was also checked against EPA's National Electric Energy Data System (NEEDS) database. The NEEDS database contains a list of electric generating units used to construct the "model" plants that represent existing and planned/committed units in EPA modeling applications of the Integrated Planning Model (IPM). The NEEDS check resulted in the addition of a number of non-Acid Rain pre-1991 combined cycle combustion turbines at Acid Rain plants.

EPA also included specific units in the inventory of existing potential CAIR units based on objections and supporting data submitted to the EPA by the owners or operators of the units involved.

EPA notes, as discussed above, that inclusion of a unit in, or exclusion of a unit from, the inventory of existing potential CAIR units (and thus the allocations for 2009-2014) reflects only a preliminary application of the applicability provisions of the CAIR FIPs and does not constitute a determination of whether the unit is subject to a CAIR FIP. The inventory was developed in order to enable EPA to calculate allowance allocations for existing units, and the data that EPA used in developing the inventory are not complete and have certain limitations.

In contrast, the applicability on the CAIR FIPs to individual units must be determined based on a complete review of all relevant data, whether or not all such data were provided at the time the inventory was developed, and final application of the applicability provisions to that data. In fact, because an inventory developed for purposes of allowance allocation may not be entirely consistent with final applicability determinations, §§97.142(e) and 97.342(e) establish procedures to be applied when the Administrator determines that a unit that has been allocated allowances turns out not to actually be a CAIR unit, i.e., not to actually be a unit subject to the requirements of a CAIR FIP. For example, if this determination is made after the allowance allocation is recorded but before deductions for compliance with the allowance-holding requirement are made under §§97.154(b) and 97.354(b), the Administrator will deduct the allowances and transfer them to a new unit set-aside for the appropriate State.

The public, including owners and operators of units that should have been, but were not included in the inventory of existing potential CAIR units in the preliminary NODA, was asked to submit objections, in

response to the August 4, 2006 NODA, informing EPA that the units should be added to the inventory and allocated allowances, consistent with the applicability criteria in the CAIR FIP (in §§97.104 and 97.304). The data necessary for allowance allocations were also to be provided.

Applicability objections received in response to the August 4, 2006 NODA, and EPA's response concerning whether to add the units or remove the units from the inventory of existing potential CAIR units are described in the Response to Objections Document and copies of the applicability determinations are included in the CAIR FIP docket.

A unit that is not allocated allowances because of its exclusion from the inventory may ultimately be determined to be a CAIR unit. Each CAIR unit is subject to the allowance-holding requirements of CAIR regardless of whether the unit is allocated any allowances.

**B. Annual and Ozone Season Fuel Heat Input Data for Acid Rain Units**

EPA used heat input data reported by units under the Acid Rain Program for 2000 through 2004 in order to develop annual and ozone season baseline heat input. Fuel-adjusted heat input was calculated based on the reported heat input

and the primary fuel type (by year) that was reported to EPA in the unit's Acid Rain Program monitoring plan. For units that reported coal as their primary fuel for the year, EPA did not adjust their heat input. For units reporting oil as their primary fuel, EPA multiplied their heat input by 0.6. If the primary fuel was not coal or oil, the heat input for the year was multiplied by 0.4.

For some units, the use of the primary fuel type to identify the appropriate CAIR fuel adjustment factor may not yield the same result as using the CAIR FIP definition of "coal-fired" or "oil-fired" to identify the appropriate factor. Under the CAIR FIP, a coal-fired unit is a unit which burns any amount of coal in a year, and an oil-fired unit is a unit which had more than 15% of its yearly heat input from oil and burned no coal. The use of primary fuel type will not match the CAIR FIP definition in cases where coal was burned in a year, but was not listed as the primary fuel, or when more than 15% of a year's heat input was from oil, but oil was not listed as the primary fuel. EPA used the primary fuel type, as a surrogate for the data necessary to apply the terms "coal fired" and "oil fired", because under the Acid Rain Program, more detailed fuel use data are reported only for units using non-continuous

emission monitoring methods. Because of this limitation on the data used by EPA, the fuel-adjusted heat input calculated for some units may be lower than if the calculation were based on more precise data. Owners and operators were asked to provide, in response to the August 4, 2006 NODA, any available, more precise data on fuel use. Fuel type objections and EPA's response are described in the Response to Objections document. EPA accepted the fuel type objections to the fuel determinations based on monitoring plan data in the preliminary NODA.

**C. Annual and Ozone Season Fuel Heat Input Data for Non-Acid Rain Units**

EIA data, as well as Federal Energy Regulatory Commission (FERC) form 423 data, were used to calculate annual and ozone season fuel-adjusted heat input for non-Acid Rain units.<sup>3</sup>

The data sources and calculation methods vary by the type of unit and data year. The EIA and FERC databases that were used were downloaded in October 2005 and are available on EIA's website at

<http://www.eia.doe.gov/cneaf/electricity/page/data.html>.

---

<sup>3</sup> In some cases, heat input information was not available for all or a portion of the baseline period. It was not clear whether this was the result of a unit not operating or a unit failing to report its operations. A zero value was applied for heat input in these cases. This may have resulted in an incorrect baseline heat input for the unit involved.

For the August 4, 2006 NODA inventory, we also replaced the calculated ozone season heat input data with data reported to EPA under the OTC NO<sub>x</sub> Budget Program and the NO<sub>x</sub> SIP Call NO<sub>x</sub> Budget Trading Program, if available. For the final inventory, based on objections received, we also replaced the calculated annual values with data reported to EPA for a full twelve months under the OTC NO<sub>x</sub> Budget Program and the NO<sub>x</sub> SIP Call NO<sub>x</sub> Budget Trading Program.<sup>4</sup> The reported heat input was used in conjunction with information regarding the primary fuel for the year (reported in the monitoring plan) to calculate the fuel-adjusted heat input.

In addition, EPA also utilized information provided as part of the CAIR rulemaking process. More specifically, EPA used annual heat input data submitted in response to EPA's Supplemental CAIR Proposal published in the Federal Register on June 10, 2004.

### *Boilers*

For 2000, fuel-adjusted annual and ozone season heat input were calculated for each utility boiler based on EIA

---

<sup>4</sup> Initially EPA did not use data reported under the NO<sub>x</sub> Budget programs for non-Acid Rain units. Some units only report ozone season quarters, and therefore the heat input for these reflect less than a full year's operation.

form 767 monthly fuel use and heat content data. The fuel-adjusted 2000 annual heat input was calculated at the plant level for non-utility boilers based on EIA form 860b data. The fuel usage and heat content information in EIA form 860b is reported at the plant level, so the fuel-adjusted heat input was first calculated for the plant and then apportioned equally to each boiler (at the plant) that is a potential CAIR unit. The ozone season heat input for non-utility boilers was based on multiplying the annual heat input by the fraction of the five ozone-season months to 12 annual months (5/12).<sup>5</sup>

Beginning in 2001, both utility and non-utility boilers reported using EIA form 767, so fuel-adjusted heat input was calculated for each boiler based on monthly fuel usage and heat content data from that EIA form for the 2001 through 2004 period.

Although data for 2000 was developed as described above, EPA decided not to use the 2000 data in certain cases, i.e., where a plant included both existing potential CAIR units and existing units that are not treated as potential CAIR units. Since in those cases the 2000 unit

---

<sup>5</sup> Plants that were sold in 2000 and changed status from utility to non-utility sometimes reported using both the utility and non-utility forms for that year. To avoid double counting of heat input in these cases, EPA used only the data from utility form or the data from the non-utility form for the plant, whichever set of data resulted in the higher heat input for the plant.

level heat input could not be determined for existing potential CAIR units alone without attributing to them heat input that actually may be for units that are not potential CAIR units and this additional heat input could be significant, EPA decided, in those cases, to exclude the 2000 heat input data and use the average of the three highest annual heat input values during 2001 through 2004 in calculating NO<sub>x</sub> allowance allocations. In any case where the use of unit level data (for 2000 or for any other relevant period) will affect the calculation of the baseline heat input of a unit, the owners and operators of the unit were given the opportunity to provide EPA, in response to the preliminary NODA, the unit level data.

*Simple Combustion Turbines and Combined Cycle Units at Non-Acid Rain Plants*

The following procedures were used for simple combustion turbines and combined cycle units at non-Acid Rain plants, which include certain utility and non-utility plants.<sup>6</sup> For 2000, data from the EIA form 860b was used to calculate simple combustion turbine and combined cycle unit fuel-adjusted heat input for the non-utility plants in a

---

<sup>6</sup> See note 2.

similar manner as the 2000 non-utility boiler calculation. Annual fuel-adjusted heat input was calculated at the plant level. Data from the EIA form 759 and FERC form 423 were used to calculate simple combustion turbine and combined cycle heat input for the utility plants. The EIA form 759 provided monthly fuel usage at the prime mover level (simple combustion turbine, combined cycle combustion turbine, and combined cycle steam turbine), and the FERC form 423 provided gaseous and liquid fuel heat content for the plants. The prime mover fuel-adjusted heat input for the plant was apportioned equally to each potential CAIR unit at the plant by prime mover type (with combined cycle combustion turbine and steam turbine heat inputs combined to provide a single combined cycle heat input). To the extent the plant includes both potential CAIR units and units that are not treated as potential CAIR units, this approach may have resulted in calculated heat input values exceeding the actual heat input for the potential CAIR units. Unlike the boiler data, that required apportioning plant level data only for 2000, combustion turbine EIA data are only available at the plant level for all of the years. Therefore the approach taken for boilers, i.e., exclusion of a year of plant level data when that data may be

impacted by units not subject to CAIR, was not available. In any case where the use of unit level data (for 2000 or for any other relevant period) will affect calculation of the baseline heat input of a unit, the owners and operators were given the opportunity to provide to the EPA, in response to the preliminary NODA in 2006, the unit level data. Ozone-season heat input was calculated based on the 5/12 fraction of ozone-season months to annual months.

In 2001 the EIA form 759 was renamed as form 906, with separate similar versions for non-utility and utility plant prime mover level fuel usage. Data for the non-utility and utility plants from these forms were combined with the FERC form 423 heat content data to calculate prime mover level fuel-adjusted heat input. This prime mover level annual and ozone season heat input was then apportioned equally to each simple combustion turbine or combined cycle turbine (at the plant) that is a potential CAIR unit by prime mover type as described earlier for the 2000 utility units.

EIA combined the utility and non-utility reporting forms in 2002 and changed the format. The EIA form 906 for 2002 through 2004 provided both fuel usage and fuel heat input on a monthly basis. The annual and ozone season fuel-adjusted heat input was totaled for each of the non-

utility and utility plants at the prime mover level and then apportioned equally to each potential CAIR unit at the plant, as described above for the 2000 and 2001 EIA form 759 and 906 data.

*Non-Acid Rain Simple Combustion Turbines at Acid Rain Plants*

The fuel-adjusted heat inputs for non-Acid Rain simple combustion turbines located at Acid Rain plants with no Acid Rain combustion turbines were calculated and apportioned in a similar manner as described above for simple combustion turbines and combined cycle units at non-Acid Rain plants.

Heat inputs, however, for non-Acid Rain combustion turbines located at plants with Acid Rain combustion turbines had to be calculated in a different manner in order to not double count heat input. At these plants the plant or prime mover level heat input, calculated with EIA data as described above, included heat input from both the non-Acid Rain and Acid Rain turbines. Since the baseline heat input for the Acid Rain turbines at the plant was taken from data reported to EPA under the Acid Rain Program, the Acid Rain data was subtracted from the total

EIA-based combustion turbine and combined cycle heat input. The remaining fuel-adjusted heat input was then apportioned equally to each of the non-Acid Rain turbines. In some cases the difference between EIA and Acid Rain heat input was zero or even negative resulting in zero heat input for the non-Acid Rain units.

Heat input and fuel type objections received in response to the August 4, 2006 NODA, and EPA's response concerning whether to modify the baseline heat input, are described in the Response to Objections Document. EPA accepted objections that provided unit level data for units for which EPA has relied on plant level EIA data. EPA also accepted objections for units for which EPA had used unit level EIA data, if the objector identified that it had notified EIA of data issues. EPA also accepted heat input objections if the source provided an objection with new heat input data and an explanation of why the newly submitted data constituted best available data. Also some objectors had pointed out an error in EPA's calculation of 2002 through 2004 ozone season boiler heat input that were based on EIA form 767 data. EPA corrected the calculation error and has revised the EIA based ozone season heat input for those years.

## **5. How Do I Interpret the Data Tables Presented through this NODA?**

This section provides a brief description of the types of data included in each table of this NODA. A more detailed description of the data tables may be found in the TSD titled "Data Field Description for the Final CAIR FIP NO<sub>x</sub> Annual and NO<sub>x</sub> Ozone-season Allocation Tables", which is available in the docket and on the website mentioned in Section 8. The CAIR Annual and Ozone Season NO<sub>x</sub> Allocation tables were created primarily using data reported to EPA (under the Acid Rain Program) and the EIA. For a number of units, annual and ozone season allocations were based on heat input and fuel information provided in response to the August 4, 2006 NODA. In addition, for a small number of non-Acid Rain units, annual allocations incorporated heat input information provided by the source owner or operator in response to EPA's June 10, 2004 Supplemental CAIR Proposal.

Tables 1 and 2 contain the annual and ozone season unit NO<sub>x</sub> allowance allocations and the baseline heat input. Tables 3, 4, 5, and 6 contain the EIA, EPA, and objector data regarding heat input and primary fuel used to

calculate the annual allocations. Tables 7, 8, and 9 contain additional EIA, EPA, and objector data used to calculate ozone season allocations.

Some units (i.e., units not reporting under the Acid Rain Program, OTC NO<sub>x</sub> Budget Program, or NO<sub>x</sub> SIP Call NO<sub>x</sub> Budget Trading Program during a portion of the baseline period) use heat input data available from both EIA and EPA to compile the baseline heat input. For these units the EIA annual heat input data are used until the first full year of Acid Rain Program or NO<sub>x</sub> Budget Program data are available. Ozone season heat inputs used for the ozone season allocation are from the data reported under the Acid Rain Program, OTC NO<sub>x</sub> Budget Program, and NO<sub>x</sub> SIP Call NO<sub>x</sub> Budget Trading Program, if available, in Table 8. Otherwise EIA data in Table 7 or source-provided data in Table 9 were used.

#### **6. Is the EPA Requesting Objections to these Data?**

EPA is not requesting objections to the data in the data tables in this NODA. This action constitutes a final action for determining the CAIR FIP NO<sub>x</sub> allowance allocations for existing units for 2009-2014.

## 7. What Data Is the EPA Making Available?

EPA has used the best data currently available to develop an inventory of existing units that currently are potentially covered by the CAIR FIPs and to calculate each existing unit's allowance allocations for 2009 through 2014. Through the NODA, EPA is making available to the public, including unit owners and operators, the data used in developing the inventory of potential existing CAIR units, the heat input and fuel type data and resulting baseline heat inputs used in the allocation calculations, and the allocations resulting from such calculations.

As discussed above, the inventory of existing potential CAIR units, and the data on which the inventory is based, are final for purposes of determining what units should be allocated allowances in this NODA and are not final for purposes of future NODAs concerning future allocations and for purposes of determining whether a unit is subject to the requirements of the CAIR FIPs.<sup>7</sup> Further, the heat input and fuel type data and resulting baseline heat inputs used in this NODA are final for purposes of determining CAIR NO<sub>x</sub> FIP allowances for 2009-2014. EPA intends to use, for the units in the inventory in this

---

<sup>7</sup> See note 1.

NODA, these data (including the baseline heat inputs) in calculating allocations in future NODA addressing future years. These data include: EPA heat input and fuel type data under the Acid Rain Program for the years 2000 through 2004, under the NO<sub>x</sub> Budget Program (NBP) for 2000 through 2002 for Ozone Transport Commission (OTC) units, and under the NO<sub>x</sub> Budget Trading Program for 2003 and 2004 for units under the NO<sub>x</sub> SIP Call; and heat input and fuel data obtained in EIA databases for units that are not under these programs. The 2009-2014 allocations in the NODA, calculated using these data, are also final.

In particular, this action makes available to the public: NO<sub>x</sub> annual and NO<sub>x</sub> ozone season allocations for individual units in CAIR States for the FIP; the adjusted heat input values for each unit for 2000 through 2004; the baseline heat inputs used to calculate the allocations; the other data used to include units in, or exclude units from, the inventory of existing potential CAIR units for which allocations are calculated; and objector data received during the objection period that were used in the final inventory and allowance determinations for units.

In particular, EPA is making the following data available:

- EIA Annual Heat Input  
EIA data were used to obtain heat input and fuel type data for those units that are subject to the CAIR rule, but are not reporting annually under the Acid Rain Program, OTC NO<sub>x</sub> Budget Program, or the NO<sub>x</sub> SIP Call NO<sub>x</sub> Budget Trading Program.
- EIA Ozone Season Heat Input
- EPA Acid Rain Program Annual Heat Input
- EPA Acid Rain Program, OTC NO<sub>x</sub> Budget Program, and NO<sub>x</sub> SIP Call NO<sub>x</sub> Budget Trading Program Ozone Season Heat Input
- Unit NO<sub>x</sub> Annual Allowance Allocation Table
- Unit NO<sub>x</sub> Ozone Season Allocation Table
- Objector data that were used in inventory and the final allocations.

**8. Where Can I get the Data Discussed in this NODA?**

Tables 1 through 9, which include the allowance allocations, baseline heat input, adjusted heat input, and fuel type data, are available in an Excel file titled "Final Data for EGU NO<sub>x</sub> Annual and NO<sub>x</sub> Ozone Season Allocations for the Clean Air Interstate Rule Federal Implementation Plan Trading Programs (2009 through 2014 allowance allocations" on the CAMD website at

<http://www.epa.gov/airmarkets/cair/NODA>. The "NODA" link will open a webpage which contains this excel file, along with the NODA, Technical Support Document, Response to Objections Document, and copies of the applicability determinations made in connection with this NODA in PDF format. The NODA is titled "Final Notice of Data Availability for EGU NO<sub>x</sub> Annual and NO<sub>x</sub> Ozone Season Allocations for the Clean Air Interstate Rule Federal Implementation Plan Trading Program (2009 through 2014 allowance allocations)." The TSD is titled "Data Field Description for the CAIR FIP NO<sub>x</sub> Annual and NO<sub>x</sub> Ozone Season Allocation Tables (2009 through 2014 allowance allocations)." The Response to Objections document is titled "Response to the Objections for the Notice of Data Availability (NODA), Proposed Allocation of NO<sub>x</sub> Allowances under the Clean Air Interstate Rule (CAIR) Federal Implementation Plan (FIP)." In addition, these files are in the CAIR FIP Docket (Docket ID no. EPA-HQ-OAR-2004-0076).

Other data used in developing the inventory of potential existing CAIR units can be found on the EIA website through the link given in section 4 of this NODA.

\_\_\_\_\_  
Dated

\_\_\_\_\_  
Brian McLean  
Director  
Office of Atmospheric Programs